# A reconstruction of Gunter's Canon triangulorum (1620) 

## Denis Roegel

## To cite this version:

Denis Roegel. A reconstruction of Gunter's Canon triangulorum (1620). [Research Report] 2010. inria-00543938

HAL Id: inria-00543938
https://inria.hal.science/inria-00543938
Submitted on 6 Dec 2010

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire HAL, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

# A reconstruction of Gunter's 

# Canon triangulorum (1620) 

## Denis Roegel

6 December 2010

# Introduction 

> What Briggs did for logarithms of numbers, Gunter did for logarithms of trigonometrical functions.

Charles H. Cotter [9]

The first table of decimal logarithms was published by Henry Briggs in 1617 [3]. It contained the decimal logarithms of the first thousand integers. Before that, in 1614, Napier had published tables of "Napierian" logarithms of the sines [24]. Eventually, in 1620, combining these two ideas, Edmund Gunter (1581-1626) was the first to publish a table of decimal logarithms of trigonometric functions. This is the table which is reproduced here.

## 1 Edmund Gunter (1581-1626)

Edmund Gunter ${ }^{1}$ studied at Oxford and became famous for several inventions, in particular for the sector invented in 1606 [18, 40, 47]. Around 1606, after having written an account of a "New projection of the sphere," he became friends with Henry Briggs [9, p. 363]. Gunter eventually became professor of astronomy at Gresham college in London in 1619 [45]. ${ }^{2}$ In 1620, he had the idea of putting a logarithmic scale on a rule, which later was developed into a slide rule. ${ }^{3}$ After Gunter's death, Henry Gellibrand (1597-1637) became professor of astronomy at Gresham college.

Gunter's Canon triangulorum [17] ${ }^{4}$ published in 1620 gives the logarithms of the sines and tangents with seven decimal places for every minute of the quadrant, semi-quadrantically arranged. Gunter does not explain how he obtained the logarithms of the sines and tangents and we can only theorize that he used a variant of the radix method later described in detail by Briggs [4]. He must have used the sines from a prior table, perhaps the Opus palatinum [28] or the Thesaurus mathematicus [27], and computed their logarithms.

[^0]Gunter of course needed to compute the logarithms of sines only from $45^{\circ}$ to $90^{\circ}$, hence a total of $45 \times 60=2700$ logarithms, which could have been computed easily in less than a year. Then, once $\log \sin \alpha$ had been computed for $\alpha \geq 45^{\circ}$, Gunter may have used the relation $\log \sin \alpha=\log \sin 2 \alpha+$ $\log \sin 30^{\circ}-\log \sin \left(90^{\circ}-\alpha\right)$ for $\alpha<45^{\circ}$ and the logarithms of tangents could have been obtained with $\log \tan \alpha=\log \sin \alpha-\log \sin \left(90^{\circ}-\alpha\right)$. By restricting the calculations of the logarithms to an octant, the calculation of the other logarithms introduces errors which accumulate, and perhaps Gunter did not use this method. ${ }^{5}$

Although Gunter's table does not name the cosine and cotangent functions, it also gives their logarithms, since $\log \cos \alpha=\log \sin \left(90^{\circ}-\alpha\right)$ and $\log \cot \alpha=\log \tan \left(90^{\circ}-\alpha\right)$. The cosines and cotangent are only named in the introduction, and this is the first printed use of these words [15, p. 187].

After the publication of his table, Gunter may have been one of the computers who assisted Briggs in the computation of the Arithmetica logarithmica published in 1624 or of its planned extension by Briggs [13, p. 381].

A translation of Gunter's table was published in Dutch in 1626 (see [32]) and the table was extended by Vlacq in 1628 in his Arithmetica logarithmi$c a$ [42] (every minute of the quadrant and to 10 places) and in 1633 in his Trigonometria artificialis [43] (every 10 seconds and also to 10 places).

## 2 Structure of the table and recomputation

The structure of the table is straightforward. One page covers half a degree and gives the logarithms of the sines and tangents. The first line of the first page is a special case. Gunter's table gives $\log \sin 0=\log \tan 0=0$, but Infinitum only for $\log \tan 90^{\circ}$. In our reconstruction, we have written Infinitum in all three cases, not distinguishing between $-\infty$ and $\infty$. Gunter's table also contains minor errors, and these errors have not been reproduced. Our reconstruction is therefore not a facsimile, but an "ideal" table.

Although the sines of the quadrant were considered between 0 and 1 , and the conventions of the decimal logarithms were well established by Briggs in his first table [3], Gunter actually did not give the values of $\log \sin x$ and $\log \tan x$, but "shifted" values of the logarithms. These values can best be viewed as the logarithms of the scaled sines and tangents. The scale factor in this case is $10^{10}$ and is unrelated to the number of decimal places in the table. By using such a scale factor, and in fact by considering that the whole sine has a logarithm of 10 , all logarithms are positive and the characteristics of all the logarithms of the sines have only one digit, except for the whole sine. The characteristics of the logarithms of the tangents are 10 or more in

[^1]the second half of the quadrant. This convention was later used by Briggs in his Trigonometria britannica [5].

For instance, $\log \sin 1^{\circ}=-1.758144 \ldots, 10+\log \sin 1^{\circ}=8.241855 \ldots$ and Gunter's table contains 82418553.

For the cotangents, since they are greater than 1, the table contains 9 digit values. For instance, $\log \cot 0^{\circ} .5=2.05914160 \ldots$ and Gunter's table gives the value 120591415.

In our reconstruction, the table has been enlarged, the original book having the dimensions $9 \mathrm{~cm} \times 14.4 \mathrm{~cm}$, that is, less than a fourth of an A4 page.

The table was recomputed using the GNU mpfr multiple-precision float-ing-point library developed at INRIA [12], and gives the exact values. The comparison of our table and Gunter's will therefore immediately show where Gunter's table contains errors.


A page from Gunter's canon.

## References

The following list covers the most important references ${ }^{6}$ related to Gunter' tables. Not all items of this list are mentioned in the text, and the sources which have not been seen are marked so. We have added notes about the contents of the articles in certain cases.
[1] Ian R. Adamson. The administration of Gresham College and its fluctuating fortunes as a scientific institution in the seventeenth century. History of Education, 9(1):13-25, March 1980.
[2] Anonymous. Gunter, Edmund. In The Encyclopœdia Britannica (11th edition), volume 12, pages 729-730. New York, 1910.
[3] Henry Briggs. Logarithmorum chilias prima. London, 1617. [The tables were reconstructed by D. Roegel in 2010. [31]]
[4] Henry Briggs. Arithmetica logarithmica. London: William Jones, 1624. [The tables were reconstructed by D. Roegel in 2010. [34]]
[5] Henry Briggs and Henry Gellibrand. Trigonometria Britannica. Gouda: Pieter Rammazeyn, 1633. [The tables were reconstructed by D. Roegel in 2010. [33]]
[6] Florian Cajori. On the history of Gunter's scale and the slide rule during the seventeenth century. University of California publications in Mathematics, 1(9):187-209, 1920.
[7] Moritz Cantor. Vorlesungen über Geschichte der Mathematik. Leipzig: B. G. Teubner, 1900. [volume 2, p. 743 on Gunter]
[8] Lesley B. Cormack. Charting an empire. Chicago: University of Chicago Press, 1997.
[9] Charles Henry Cotter. Edmund Gunter (1581-1626). Journal of navigation, 34(3):363-367, 1981.

[^2][10] Mordechai Feingold. The mathematicians' apprenticeship: science, universities and society in England, 1560-1640. Cambridge: Cambridge University Press, 1984.
[11] Alan Fletcher, Jeffery Charles Percy Miller, Louis Rosenhead, and Leslie John Comrie. An index of mathematical tables. Oxford: Blackwell scientific publications Ltd., 1962. [2nd edition (1st in 1946), 2 volumes]
[12] Laurent Fousse, Guillaume Hanrot, Vincent Lefèvre, Patrick Pélissier, and Paul Zimmermann. MPFR: A multiple-precision binary floating-point library with correct rounding. ACM Transactions on Mathematical Software, 33(2), 2007.
[13] James Whitbread Lee Glaisher. On early logarithmic tables, and their calculators. The London, Edinburgh and Dublin Philosophical Magazine and Journal of Science, Series 4, 45(301):376-382, May 1873.
[14] James Whitbread Lee Glaisher. Report of the committee on mathematical tables. London: Taylor and Francis, 1873. [Also published as part of the "Report of the forty-third meeting of the British Association for the advancement of science," London: John Murray, 1874.] [see p. 65 for the description of Gunter's table]
[15] James Whitbread Lee Glaisher. The earliest use of the radix method for calculating logarithms, with historical notices relating to the contributions of Oughtred and others to mathematical notation. The Quarterly journal of pure and applied mathematics, 46:125-197, 1915.
[16] George John Gray. Edmund Gunter. In Dictionary of National Biography, volume 8, pages 793-794. London: Smith, Elder, \& Co., 1908. [volume 23 (1890) in the first edition]
[17] Edmund Gunter. Canon triangulorum, sive tabule sinuum et tangentium artificialium ad radium 10000,0000. $\mathcal{B}$ ad scrupula prima quadrantis. London: William Jones, 1620.
[18] Edmund Gunter. De sectore ${ }^{8}$ radio. The description and vse of the sector in three bookes. The description and vse of the cross-staffe in other three bookes. For such as are studious of mathematicall practise. London: William Jones, 1623. [not seen]
[19] James Henderson. Bibliotheca tabularum mathematicarum, being a descriptive catalogue of mathematical tables. Part I: Logarithmic tables (A. Logarithms of numbers), volume XIII of Tracts for computers. London: Cambridge University Press, 1926.
[20] Christopher Hill. Intellectual origins of the English Revolution revisited. Oxford: Clarendon press, 1997.
[21] Charles Hutton. Mathematical tables, etc. London, 1811. [fifth edition, see pp. 35-36 on Gunter]
[22] Graham Jagger. The making of logarithm tables. In Martin Campbell-Kelly, Mary Croarken, Raymond Flood, and Eleanor Robson, editors, The history of mathematical tables: from Sumer to spreadsheets, pages 48-77. Oxford: Oxford University Press, 2003.
[23] William Mountaine. A description of the lines drawn on Gunter's scale, as improved by Mr. John Robertson, late librarian to the Royal Society, etc. London: Nairne and Blunt, 1778.
[24] John Napier. Mirifici logarithmorum canonis descriptio. Edinburgh: Andrew Hart, 1614. [Recomputed in 2010 by D. Roegel [35].]
[25] William Nicholson. The principles and illustration of an advantageous method of arranging the differences of logarithms, on lines graduated for the purpose of computation. Philosophical Transactions of the Royal Society of London, 77:246-252, 1787.
[26] Jon V. Pepper. Edmund Gunter. In Charles Coulston Gillispie, editor, Dictionary of Scientific Biography, volume 5, pages 593-594. New York: Charles Scribner's Sons, 1981.
[27] Bartholomaeus Pitiscus. Thesaurus mathematicus sive canon sinuum ad radium 1.00000.00000.00000. et ad dena quœque scrupula secunda quadrantis : una cum sinibus primi et postremi gradus, ad eundem radium, et ad singula scrupula secunda quadrantis : adiunctis ubique differentiis primis et secundis; atque, ubi res tulit, etiam tertijs. Frankfurt: Nicolaus Hoffmann, 1613. [The tables were reconstructed by D. Roegel in 2010. [36]]
[28] Georg Joachim Rheticus and Valentinus Otho. Opus palatinum de triangulis. Neustadt: Matthaeus Harnisch, 1596. [This table was recomputed in 2010 by D. Roegel [37].]
[29] John Robertson. The construction of the logarithmic lines on the Gunter's scale. Philosophical Transactions of the Royal Society of London, 48:96-103, 1753.
[30] Denis Roegel. A reconstruction of Adriaan Vlacq's tables in the Trigonometria artificialis (1633). Technical report, LORIA, Nancy, 2010. [This is a recalculation of the tables of [43].]
[31] Denis Roegel. A reconstruction of Briggs's Logarithmorum chilias prima (1617). Technical report, LORIA, Nancy, 2010. [This is a recalculation of the tables of [3].]
[32] Denis Roegel. A reconstruction of De Decker-Vlacq's tables in the Arithmetica logarithmica (1628). Technical report, LORIA, Nancy, 2010. [This is a recalculation of the tables of [42].]
[33] Denis Roegel. A reconstruction of the tables of Briggs and Gellibrand's Trigonometria Britannica (1633). Technical report, LORIA, Nancy, 2010. [This is a recalculation of the tables of [5].]
[34] Denis Roegel. A reconstruction of the tables of Briggs' Arithmetica logarithmica (1624). Technical report, LORIA, Nancy, 2010. [This is a recalculation of the tables of [4].]
[35] Denis Roegel. A reconstruction of the tables of Napier's descriptio (1614). Technical report, LORIA, Nancy, 2010. [This is a recalculation of the tables of [24].]
[36] Denis Roegel. A reconstruction of the tables of Pitiscus' Thesaurus Mathematicus (1613). Technical report, LORIA, Nancy, 2010. [This is a recalculation of the tables of [27].]
[37] Denis Roegel. A reconstruction of the tables of Rheticus's Opus Palatinum (1596). Technical report, LORIA, Nancy, 2010. [This is a recalculation of the tables of [28].]
[38] Denis Roegel. The great logarithmic and trigonometric tables of the French Cadastre: a preliminary investigation. Technical report, LORIA, Nancy, 2010.
[39] Richard P. Ross. The social and economic causes of the Revolution in the mathematical sciences in mid-seventeenth-century England. The Journal of British Studies, 15(1):46-66, 1975.
[40] Christopher J. Sangwin. Edmund Gunter and the sector, 2003.
[41] Glen van Brummelen. The mathematics of the heavens and the Earth: the early history of trigonometry. Princeton: Princeton University Press, 2009.
[42] Adriaan Vlacq. Arithmetica logarithmica. Gouda: Pieter Rammazeyn, 1628. [The introduction was reprinted in 1976 by Olms and the tables were reconstructed by D. Roegel in 2010 [32].]
[43] Adriaan Vlacq. Trigonometria artificialis. Gouda: Pieter Rammazeyn, 1633. [The tables were reconstructed by D. Roegel in 2010. [30]]
[44] Anton von Braunmühl. Vorlesungen über Geschichte der Trigonometrie. Leipzig: B. G. Teubner, 1900, 1903. [2 volumes]
[45] John Ward. The lives of the professors of Gresham College. London: John Moore, 1740. [pp. 77-81 on Gunter]
[46] J. Frederick Lake Williams. An historical account of inventions and discoveries in those arts and sciences, which are of utility or ornament to man, etc. London: T. and J. Allman, 1820. [vol. 2, pp. 65-70 are a memoir on Edmund Gunter]
[47] Michael Roy Williams and Erwin Tomash. The sector: its history, scales, and uses. IEEE Annals of the History of Computing, 25(1):34-47, January-March 2003.
[48] Mary Claudia Zeller. The development of trigonometry from Regiomontanus to Pitiscus. PhD thesis, University of Michigan, 1944. [published in 1946]

# CANON TRIANGVLORVM, 

## SIVE

## Tabulæ Sinuum et Tangen-

tium artificialium ad Radium 10000.0000, \& ad scrupula prima quadrantis.

Per Edm: Gvnter, Professorem Astronomice in Collegio Greshamensi.


> LONDINI,

Excudebat Gulielmus Iones.
MDCXX.

# HONORATISSIMO DOMINO 

 Dn. Iohanni Egerton, Comiti de Bridgewater, Vicecomiti de Brackley, Baroni de Ellesmere
## Hunc suum Canonem Triangulorum

D D

Edm. Gvnter.

## Descriptio Canonis.

Canon noster sex habet columnas, duabus lineis a se invicem distinctas.

Quarũ prima est arcuũ ab o, in 45 Gra. sexta arcuum a 45 Gra . in quadranten, reliquæ quatuor intermediæ continent Sinus \& Tangentes horum arcuum. Sunt autem Sinus nostri non semisses subtensarum, et Tangentes non perpendiculares ab extremitate diametri : sed numeri propij eorũ loco substitutim quos propterea cum primo inventore Domino MarchistoniJ artificiales decimus. Atq; ita secunda colũna et quarta cõtinent Sinus \& Tangentes arcuũ prjmæ columnæ, tertia columna \& quinta Sinus \& Tangentes arcuũ sextæ colũnæ.

Vt si quæratur sinus artificialis nostræ latitudinis quæ Londini est Gra. 51. M 32. Invenies sinũ 51. in ima parte paginæ, \& minuta 32. in sexta columna, cõmunis angulus dat 9893.7452 , pro sinu quæsito, cui in eadem linea respondet sinus cõplementi 9793.8317 , quem breuitatis causa cosinũ dicimus. Similiter tangens Gra. 51. M. 32. est 10099.9134, \& cotangens 9900.0865. Secantes quoties vsus postulat suppleri poterunt auserendo cosinum è duplo radij.

Vt duplum radij sit
Hinc auser cosinũ Gra. 51. M. 32.
Fiet secans Gra. 51. M. 32.

| 20000 | oono |
| ---: | :--- |
| 9793 | 8317 |
| 10206 | 1682 |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 0 |  |  |  | Tan. 0 | Infinitum |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | Infinitum |  | 10000 | 0000 | Infinitum |  |  | 60 |
| 1 | 6463 7261 <br> 764 7561 <br> 940 8473 <br> 7065 7860 <br> 162 6960 |  | 9999 | $\begin{aligned} & 0000 \\ & 9999 \\ & 9998 \\ & 9997 \\ & 9995 \end{aligned}$ | $\begin{array}{r\|l\|} \hline 6463 & 7261 \\ 764 & 7562 \\ 940 & 8475 \\ 7065 & 7863 \\ 162 & 6964 \end{array}$ |  |  | 5958575655 |
| 2 |  |  | $\begin{array}{r\|r} 13536 & 2739 \\ 235 & 2438 \\ 059 & 1525 \\ 12934 & 2137 \\ 837 & 3036 \end{array}$ |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |
| 6 | $\begin{array}{r} 241 \\ 7308 \\ 66 \\ 7417 \\ 63 \\ \hline \end{array}$ | $\begin{aligned} & 8771 \\ & 8239 \\ & 8157 \\ & 9681 \\ & 7255 \end{aligned}$ |  |  | $\begin{aligned} & 9993 \\ & 9991 \\ & 9988 \\ & 9985 \\ & 9982 \end{aligned}$ | 241 8778 <br> 7308 8248 <br> 66 8169 <br> 7417 9696 <br> 63 7273 | $\begin{array}{r\|l} 758 & 1222 \\ 12691 & 1752 \\ 33 & 1831 \\ 12582 & 0304 \\ 36 & 2727 \end{array}$ |  | 5453525150 |
| 7 |  |  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |  |
| 11 | $\begin{array}{r\|r\|} \hline 7505 & 1181 \\ 42 & 9065 \\ 77 & 6684 \\ 7609 & 8530 \\ 39 & 8160 \end{array}$ |  |  | $\begin{aligned} & 9978 \\ & 9974 \\ & 9969 \\ & 9964 \\ & 9959 \end{aligned}$ | $\begin{array}{r\|r\|} \hline 7505 & 1203 \\ 42 & 9091 \\ 77 & 6715 \\ 7609 & 8566 \\ 39 & 8201 \end{array}$ | $\begin{array}{r\|r\|} \hline 12494 & 8797 \\ 57 & 0909 \\ 22 & 3285 \\ 12390 & 1434 \\ 60 & 1799 \end{array}$ |  | 4948474645 |  |
| 12 |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 |  |  |  |  |  |  |  |  |  |  |  |  |
| 14 |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 | $\begin{array}{r} 67 \\ 94 \\ 7718 \\ 42 \\ 64 \end{array}$ | $\begin{aligned} & 8445 \\ & 1733 \\ & 9966 \\ & 4775 \\ & 7537 \end{aligned}$ |  | $\begin{aligned} & 9953 \\ & 9947 \\ & 9940 \\ & 9934 \\ & 9927 \end{aligned}$ | 67 8492 <br> 94 1786 <br> 7719 0026 <br> 42 4841 <br> 64 7610 | $\begin{array}{r\|r\|} \hline 32 & 1508 \\ 05 & 8214 \\ 12280 & 9974 \\ 57 & 5159 \\ 35 & 2390 \end{array}$ |  | 4443424140 |  |
| 17 |  |  |  |  |  |  |  |  |  |  |  |
| 18 |  |  |  |  |  |  |  |  |  |  |  |
| 19 |  |  |  |  |  |  |  |  |  |  |  |
| 20 |  |  |  |  |  |  |  |  |  |  |  |
| 2 | 85 9427 <br> 7806 1458 <br> 25 4507 <br> 43 9338 <br> 61 6623 |  |  | $\begin{aligned} & 9919 \\ & 9911 \\ & 9903 \\ & 9894 \\ & 9885 \end{aligned}$ | $\begin{array}{r\|l\|} \hline 85 & 9508 \\ 7806 & 1547 \\ 25 & 4604 \\ 43 & 9444 \\ 61 & 6738 \\ \hline \end{array}$ | $\begin{array}{r\|l\|l} \hline 14 & 0492 \\ 12193 & 8453 \\ 74 & 5396 \\ 56 & 0556 \\ 38 & 3262 \end{array}$ |  | 3938373635 |  |
| 22 |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 |  |  |  |  |  |  |  |  |  |  |  |  |
| 24 |  |  |  |  |  |  |  |  |  |  |  |  |
| 25 |  |  |  |  |  |  |  |  |  |  |  |  |
| 26 | 78 6953 <br> 95 0854 <br> 7910 8793 <br> 26 1190 <br> 40 8419 |  | $\begin{aligned} & 9876 \\ & 9866 \\ & 9856 \\ & 9845 \\ & 9835 \\ & \hline \end{aligned}$ |  | 78 7077 <br> 95 0988 <br> 7910 8938 <br> 26 1344 <br> 40 8584 | $\begin{array}{r\|r} \hline 21 & 2923 \\ 04 & 9012 \\ 12089 & 1062 \\ 73 & 8656 \\ 59 & 1416 \\ \hline \end{array}$ |  | 3433323130 |  |
| 27 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 28 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 29 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 30 |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | Sin. | 89 |  | Tan. |  | M |  |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 0 |  |  |  | Tan. 0 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 7940 | 8419 | 9999 | 9835 | 7940 | 8584 | 12059 | 1416 | 30 |
| 31 | 55 | 0819 |  | 9823 | 55 | 0996 | 44 | 9004 | 29 |
| 32 | 68 | 8698 |  | 9812 | 68 | 8886 | 31 | 1114 | 28 |
| 33 | 82 | 2334 |  | 9800 | 82 | 2534 | 17 | 7466 | 27 |
| 34 | 95 | 1980 |  | 9788 | 95 | 2192 | 04 | 7808 | 26 |
| 35 | 8007 | 7867 |  | 9775 | 8007 | 8092 | 11992 | 1908 | 25 |
| 36 | 20 | 0207 |  | 9762 | 20 | 0445 | 79 | 9555 | 24 |
| 37 | 31 | 9195 |  | 9748 | 31 | 9446 | 68 | 0554 | 23 |
| 38 | 43 | 5009 |  | 9735 | 43 | 5274 | 56 | 4726 | 22 |
| 39 | 54 | 7814 |  | 9721 | 54 | 8094 | 45 | 1906 | 21 |
| 40 | 65 | 7763 |  | 9706 | 65 | 8057 | 34 | 1943 | 20 |
| 41 | 76 | 4997 |  | 9691 | 76 | 5306 | 23 | 4694 | 19 |
| 42 | 86 | 9646 |  | 9676 | 86 | 9970 | 13 | 0030 | 18 |
| 43 | 97 | 1832 |  | 9660 | 97 | 2172 | 02 | 7828 | 17 |
| 44 | 8107 | 1669 |  | 9644 | 8107 | 2025 | 11892 | 7975 | 16 |
| 45 | 16 | 9262 |  | 9628 | 16 | 9634 | 83 | 0366 | 15 |
| 46 | 26 | 4710 |  | 9611 | 26 | 5099 | 73 | 4901 | 14 |
| 47 | 35 | 8104 |  | 9594 | 35 | 8510 | 64 | 1490 | 13 |
| 48 | 44 | 9532 |  | 9577 | 44 | 9956 | 55 | 0044 | 12 |
| 49 | 53 | 9075 |  | 9559 | 53 | 9516 | 46 | 0484 | 11 |
| 50 | 62 | 6808 |  | 9541 | 62 | 7267 | 37 | 2733 | 10 |
| 51 | 71 | 2804 |  | 9522 | 71 | 3282 | 28 | 6718 | 9 |
| 52 | 79 | 7129 |  | 9503 | 79 | 7626 | 20 | 2374 | 8 |
| 53 | 87 | 9848 |  | 9484 | 88 | 0364 | 11 | 9636 | 7 |
| 54 | 96 | 1020 |  | 9464 | 96 | 1556 | 03 | 8444 | 6 |
| 55 | 8204 | 0703 |  | 9444 | 8204 | 1259 | 11795 | 8741 | 5 |
| 56 | 11 | 8949 |  | 9424 | 11 | 9526 | 88 | 0474 | 4 |
| 57 | 19 | 5811 |  | 9403 | 19 | 6408 | 80 | 3592 | 3 |
| 58 | 27 | 1335 |  | 9382 | 27 | 1953 | 72 | 8047 | 2 |
| 59 | 34 | 5568 |  | 9360 | 34 | 6208 | 65 | 3792 | 1 |
| 60 | 41 | 8553 |  | 9338 | 41 | 9215 | 58 | 0785 | 0 |
|  |  |  | Sin | . 89 |  |  | Tan. | 89 | M |


| M | Sin. 1 |  |  |  | Tan. 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 8241 | 8553 | 9999 | 9338 | 8241 | 9215 | 11758 | 0785 | 60 |
| 1 | 49 | 0332 |  | 9316 | 49 | 1015 | 50 | 8985 | 59 |
| 2 | 56 | 0943 |  | 9294 | 56 | 1649 | 43 | 8351 | 58 |
| 3 | 63 | 0424 |  | 9271 | 63 | 1153 | 36 | 8847 | 57 |
| 4 | 69 | 8810 |  | 9247 | 69 | 9563 | 30 | 0437 | 56 |
| 5 | 76 | 6136 |  | 9224 | 76 | 6912 | 23 | 3088 | 55 |
| 6 | 83 | 2434 |  | 9200 | 83 | 3234 | 16 | 6766 | 54 |
| 7 | 89 | 7734 |  | 9175 | 89 | 8559 | 10 | 1441 | 53 |
| 8 | 96 | 2067 |  | 9150 | 96 | 2917 | 03 | 7083 | 52 |
| 9 | 8302 | 5460 |  | 9125 | 8302 | 6335 | 11697 | 3665 | 51 |
| 10 | 08 | 7941 |  | 9100 | 08 | 8842 | 91 | 1158 | 50 |
| 11 | 14 | 9536 |  | 9074 | 15 | 0462 | 84 | 9538 | 49 |
| 12 | 21 | 0269 |  | 9047 | 21 | 1221 | 78 | 8779 | 48 |
| 13 | 27 | 0163 |  | 9021 | 27 | 1143 | 72 | 8857 | 47 |
| 14 | 32 | 9243 |  | 8994 | 33 | 0249 | 66 | 9751 | 46 |
| 15 | 38 | 7529 |  | 8966 | 38 | 8563 | 61 | 1437 | 45 |
| 16 | 44 | 5043 |  | 8939 | 44 | 6105 | 55 | 3895 | 44 |
| 17 | 50 | 1805 |  | 8911 | 50 | 2895 | 49 | 7105 | 43 |
| 18 | 55 | 7835 |  | 8882 | 55 | 8953 | 44 | 1047 | 42 |
| 19 | 61 | 3150 |  | 8853 | 61 | 4297 | 38 | 5703 | 41 |
| 20 | 66 | 7769 |  | 8824 | 66 | 8945 | 33 | 1055 | 40 |
| 21 | 72 | 1710 |  | 8794 | 72 | 2915 | 27 | 7085 | 39 |
| 22 | 77 | 4988 |  | 8764 | 77 | 6223 | 22 | 3777 | 38 |
| 23 | 82 | 7620 |  | 8734 | 82 | 8886 | 17 | 1114 | 37 |
| 24 | 87 | 9622 |  | 8703 | 88 | 0918 | 11 | 9082 | 36 |
| 25 | 93 | 1008 |  | 8672 | 93 | 2336 | 06 | 7664 | 35 |
| 26 | 98 | 1793 |  | 8641 | 98 | 3152 | 01 | 6848 | 34 |
| 27 | 8403 | 1990 |  | 8609 | 8403 | 3381 | 11596 | 6619 | 33 |
| 28 | 08 | 1614 |  | 8577 | 08 | 3037 | 91 | 6963 | 32 |
| 29 | 13 | o676 |  | 8544 | 13 | 2132 | 86 | 7868 | $3^{1}$ |
| 30 | 17 | 9190 |  | 8512 | 18 | o679 | 81 | 9321 | 30 |
|  |  |  | Sin. | . 88 |  |  | Tan | 88 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 1 |  |  |  | Tan. 1 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 8417 | 9190 | 9999 | 8512 | 8418 | 0679 | 11581 | 9321 | 30 |
| 31 | 22 | 7168 |  | 8478 | 22 | 8690 | 77 | 1310 | 29 |
| 32 | 27 | 4621 |  | 8445 | 27 | 6176 | 72 | 3824 | 28 |
| 33 | 32 | 1561 |  | 8411 | 32 | 3150 | 67 | 6850 | 27 |
| 34 | 36 | 7999 |  | 8376 | 36 | 9622 | 63 | 0378 | 26 |
| 35 | 41 | 3944 |  | 8342 | 41 | 5603 | 58 | 4397 | 25 |
| 36 | 45 | 9409 |  | 8306 | 46 | 1103 | 53 | 8897 | 24 |
| 37 | 50 | 4402 |  | 8271 | 50 | 6131 | 49 | 3869 | 23 |
| 38 | 54 | 8934 |  | 8235 | 55 | 0699 | 44 | 9301 | 22 |
| 39 | 59 | 3013 |  | 8199 | 59 | 4814 | 40 | 5186 | 21 |
| 40 | 63 | 6649 |  | 8162 | 63 | 8486 | 36 | 1514 | 20 |
| 41 | 67 | 9850 |  | 8125 | 68 | 1725 | 31 | 8275 | 19 |
| 42 | 72 | 2626 |  | 8088 | 72 | 4538 | 27 | 5462 | 18 |
| 43 | 76 | 4984 |  | 8050 | 76 | 6933 | 23 | 3067 | 17 |
| 44 | 80 | 6932 |  | 8012 | 80 | 8920 | 19 | 1080 | 16 |
| 45 | 84 | 8479 |  | 7974 | 85 | 0505 | 14 | 9495 | 15 |
| 46 | 88 | 9632 |  | 7935 | 89 | 1696 | 10 | 8304 | 14 |
| 47 | 93 | 0398 |  | 7896 | 93 | 2502 | o6 | 7498 | 13 |
| 48 | 97 | 0784 |  | 7856 | 97 | 2928 | 02 | 7072 | 12 |
| 49 | 8501 | 0798 |  | 7817 | 8501 | 2982 | 11498 | 7018 | 11 |
| 50 | 05 | 0447 |  | 7776 | 05 | 2671 | 94 | 7329 | 10 |
| 51 | 08 | 9736 |  | 7736 | 09 | 2001 | 90 | 7999 | 9 |
| 52 | 12 | 8673 |  | 7695 | 13 | 0978 | 86 | 9022 | 8 |
| 53 | 16 | 7264 |  | 7653 | 16 | 9610 | 83 | 0390 | 7 |
| 54 | 20 | 5514 |  | 7612 | 20 | 7902 | 79 | 2098 | 6 |
| 55 | 24 | 3430 |  | 7570 | 24 | 5860 | 75 | 4140 | 5 |
| 56 | 28 | 1017 |  | 7527 | 28 | 3490 | 71 | 6510 | 4 |
| 57 | 31 | 8281 |  | 7484 | 32 | 0797 | 67 | 9203 | 3 |
| 58 | 35 | 5228 |  | 7441 | 35 | 7787 | 64 | 2213 | 2 |
| 59 | 39 | 1863 |  | 7398 | 39 | 4466 | 60 | 5534 | 1 |
| 60 | 42 | 8192 |  | 7354 | 43 | 0838 | 56 | 9162 | 0 |
|  |  |  | Sin. | . 88 |  |  | Tan. | 88 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 2 |  | Tan. 2 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 8542 | 8192 | 9999 | 7354 | 8543 | 0838 | 11456 | 9162 | 60 |
| 1 | 6 | 4218 |  | 7309 | 6 | 6909 | 3 | 3091 | 59 |
| 2 | 9 | 9948 |  | 7265 | 8550 | 2683 | 11449 | 7317 | 58 |
| 3 | 8553 | 5386 |  | 7220 | 3 | 8166 | 6 | 1834 | 57 |
| 4 | 7 | 0536 |  | 7174 | 7 | 3362 | 2 | 6638 | 56 |
| 5 | 8560 | 5404 |  | 7128 | 8560 | 8276 | 11439 | 1724 | 55 |
| 6 | 3 | 9994 |  | 7082 | 4 | 2912 | 5 | 7088 | 54 |
| 7 | 7 | 4310 |  | 7036 | 7 | 7275 | 2 | 2725 | 53 |
| 8 | 8570 | 8357 |  | 6989 | 8571 | 1368 | 11428 | 8632 | 52 |
| 9 | 4 | 2139 |  | 6942 | 4 | 5197 | 5 | 4803 | 51 |
| 10 | 7 | 5660 |  | 6894 | 7 | 8766 | 2 | 1234 | 50 |
| 11 | 8580 | 8923 |  | 6846 | 8581 | 2077 | 11418 | 7923 | 49 |
| 12 |  | 1933 |  | 6798 | 4 | 5136 | 5 | 4864 | 48 |
| 13 |  | 4694 |  | 6749 | 7 | 7945 | 2 | 2055 | 47 |
| 14 | 8590 | 7209 |  | 6700 | 8591 | 0509 | 11408 | 9491 | 46 |
| 15 | 3 | 9483 |  | 6650 | 4 | 2832 | 5 | 7168 | 45 |
| 16 | 7 | 1517 |  | 6601 | 7 | 4917 | 2 | 5083 | 44 |
| 17 | 8600 | 3317 |  | 6550 | 8600 | 6767 | 11399 | 3233 | 43 |
| 18 | 3 | 4886 |  | 6500 | 3 | 8386 | 6 | 1614 | 42 |
| 19 | 6 | 6226 |  | 6449 | 6 | 9777 | 3 | 0223 | $4^{1}$ |
| 20 | 9 | 7341 |  | 6398 | 8610 | 0943 | 11389 | 9057 | 40 |
| 21 | 8612 | 8235 |  | 6346 | 3 | 1889 | 6 | 8111 | 39 |
| 22 | 5 | 8910 |  | 6294 | 6 | 2616 | 3 | 7384 | 38 |
| 23 | 8 | 9369 |  | 6242 | 9 | 3127 | 0 | 6873 | 37 |
| 24 | 8621 | 9616 |  | 6189 | 8622 | 3427 | 11377 | 6573 | 36 |
| 25 | 4 | 9653 |  | 6136 | 5 | 3518 | 4 | 6482 | 35 |
| 26 | 7 | 9484 |  | 6082 | 8 | 3402 | 1 | 6598 | 34 |
| 27 | 8630 |  |  | 6028 | 8631 | 3083 | 11368 | 6917 | 33 |
| 28 | 3 | 8537 |  | 5974 | 4 | 2563 | 5 | 7437 | 32 |
| 29 | 6 | 7764 |  | 5919 | 7 | 1845 | 2 | 8155 | 31 |
| 30 | 9 | 6796 |  | 5865 | 8640 | 0931 | 11359 | 9069 | 30 |
|  |  |  | Sin. | . 87 |  |  | Tan. | 87 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 2 |  |  |  | Tan. 2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 8639 | 6796 | 9999 | 5865 | 8640 | 0931 | 11359 | 9069 | 30 |
| 31 | 8642 | 5634 |  | 5809 | 2 | 9825 | 7 | 0175 | 29 |
| 32 | 5 | 4282 |  | 5753 | 5 | 8528 | 4 | 1472 | 28 |
| 33 | 8 | 2742 |  | 5697 | 8 | 7044 | 1 | 2956 | 27 |
| 34 | 8651 | 1016 |  | 5641 | 8651 | 5375 | 11348 | 4625 | 26 |
| 35 | 3 | 9107 |  | 5584 | 4 | 3522 | 5 | 6478 | 25 |
| 36 | 6 | 7017 |  | 5527 | 7 | 1490 | 2 | 8510 | 24 |
| 37 | 9 | 4748 |  | 5469 | 9 | 9279 | 0 | 0721 | 23 |
| 38 | 8662 | 2303 |  | 5411 | 8662 | 6891 | 11337 | 3109 | 22 |
| 39 | 4 | 9684 |  | 5353 | 5 | 4331 | 4 | 5669 | 21 |
| 40 | 7 | 6893 |  | 5295 | 8 | 1598 | 1 | 8402 | 20 |
| 41 | 8670 | 3932 |  | 5236 | 8670 | 8697 | 11329 | 1303 | 19 |
| 42 | 3 | 0804 |  | 5176 | 3 | 5628 | , | 4372 | 18 |
| 43 | 5 | 7510 |  | 5116 | 6 | 2393 | 3 | 7607 | 17 |
| 44 | 8 | 4052 |  | 5056 | 8 | 8996 | 1 | 1004 | 16 |
| 45 | 8681 | 0433 |  | 4996 | 8681 | 5437 | 11318 | 4563 | 15 |
| 46 | 3 | 6654 |  | 4935 | 4 | 1719 | 5 | 8281 | 14 |
| 47 | 6 | 2718 |  | 4874 | 6 | 7844 | 3 | 2156 | 13 |
| 48 | 8 | 8625 |  | 4812 | 9 | 3813 | 0 | 6187 | 12 |
| 49 | 8691 | 4379 |  | 4750 | 8691 | 9629 | 11308 | 0371 | 11 |
| 50 | 3 | 9980 |  | 4688 | 4 | 5292 | 5 | 4708 | 10 |
| 51 | 6 | 5431 |  | 4625 | 7 | 0806 | 2 | 9194 | 9 |
| 52 | 9 | 0734 |  | 4562 | 9 | 6172 | 0 | 3828 | 8 |
| 53 | 8701 | 5889 |  | 4498 | 8702 | 1390 | 11297 | 8610 | 7 |
| 54 | 4 | o899 |  | 4435 | 4 | 6465 | 5 | 3535 | 6 |
| 55 | 6 | 5766 |  | 4370 | 7 | 1395 | 2 | 8605 | 5 |
| 56 | 9 | 0490 |  | 4306 | 9 | 6185 | 0 | 3815 | 4 |
| 57 | 8711 | 5075 |  | 4241 | 8712 | 0834 | 11287 | 9166 | 3 |
| 58 | 3 | 9520 |  | 4176 | 4 | 5345 | 5 | 4655 | 2 |
| 59 | 6 | 3829 |  | 4110 | 6 | 9719 | 3 | 0281 | 1 |
| 60 | 8 | 8002 |  | 4044 | 9 | 3958 |  | 6042 | 0 |
|  |  |  | Sin. | . 87 |  |  | Tan. | 87 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 3 |  |  |  | Tan. 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 8718 | 8002 | 9999 | 4044 | 8719 | 3958 | 11280 | 6042 | 60 |
| 1 | 8721 | 2040 |  | 3978 | 8721 | 8063 | 11278 | 1937 | 59 |
| 2 | 3 | 5946 |  | 3911 | 4 | 2035 | 5 | 7965 | 58 |
| 3 |  | 9721 |  | 3844 | 6 | 5877 | 3 | 4123 | 57 |
| 4 | 8 | 3366 |  | 3776 | 8 | 9589 | 1 | 0411 | 56 |
| 5 | 8730 | 6882 |  | 3708 | 8731 | 3174 | 11268 | 6826 | 55 |
| 6 | 3 | 0272 |  | 3640 | 3 | 6631 | 6 | 3369 | 54 |
| 7 | 5 | 3535 |  | 3572 | 5 | 9964 | 4 | 0036 | 53 |
| 8 | 7 | 6675 |  | 3503 | 8 | 3172 | 1 | 6828 | 52 |
| 9 | 9 | 9691 |  | 3433 | 8740 | 6258 | 11259 | 3742 | 51 |
| 10 | 8742 | 2586 |  | 3364 | 2 | 9222 | 7 | 0778 | 50 |
| 11 | 4 | 5360 |  | 3293 | 5 | 2067 | 4 | 7933 | 49 |
| 12 | 6 | 8015 |  | 3223 | 7 | 4792 | 2 | 5208 | 48 |
| 13 | 9 | 0553 |  | 3152 | 9 | 7400 | 0 | 2600 | 47 |
| 14 | 8751 | 2973 |  | 3081 | 8751 | 9892 | 11248 | 0108 | 46 |
| 15 | 3 | 5278 |  | 3009 | 4 | 2269 | 5 | 7731 | 45 |
| 16 | 5 | 7469 |  | 2938 | 6 | 4531 | 3 | 5469 | 44 |
| 17 | 7 | 9546 |  | 2865 | 8 | 6681 | 1 | 3319 | 43 |
| 18 | 8760 | 1512 |  | 2793 | 8760 | 8719 | 11239 | 1281 | 42 |
| 19 | 2 | 3366 |  | 2720 | 3 | 0647 | 6 | 9353 | 41 |
| 20 | 4 | 5111 |  | 2646 | 5 | 2465 | 4 | 7535 | 40 |
| 21 | 6 | 6747 |  | 2572 | 7 | 4175 | 2 | 5825 | 39 |
| 22 | 8 | 8275 |  | 2498 | 9 | 5777 | 0 | 4223 | $3^{8}$ |
| 23 | 8770 | 9697 |  | 2424 | 8771 | 7274 | 11228 | 2726 | 37 |
| 24 | 3 | 1014 |  | 2349 | 3 | 8665 | 6 | 1335 | 36 |
| 25 | 5 | 2226 |  | 2274 | 5 | 9952 | 4 | 0048 | 35 |
| 26 | 7 | 3334 |  | 2198 | 8 | 1136 | 1 | 8864 | 34 |
| 27 | 9 | 4340 |  | 2122 | 8780 | 2218 | 11219 | 7782 | 33 |
| 28 | 8781 | 5244 |  | 2046 | 2 | 3199 | 7 | 6801 | 32 |
| 29 | 3 | 6048 |  | 1969 | 4 | 4079 | 5 | 5921 | 31 |
| 30 | 5 | 6753 |  | 1892 | 6 | 4861 | 3 | 5139 | 30 |
|  |  |  | Sin. | . 86 |  |  | Tan. | 86 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 3 |  |  |  | Tan. 3 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 8785 | 6753 | 9999 | 1892 | 8786 | 4861 | 11213 | 5139 | 30 |
| 31 | 7 | 7359 |  | 1815 | 8 | 5544 | 1 | 4456 | 29 |
| 32 | 9 | 7867 |  | 1737 | 8790 | 6130 | 11209 | 3870 | 28 |
| 33 | 8791 | 8278 |  | 1659 | 2 | 6620 | 7 | 3380 | 27 |
| 34 | 3 | 8594 |  | 1580 | 4 | 7014 | 5 | 2986 | 26 |
| 35 | 5 | 8814 |  | 1501 | 6 | 7313 | 3 | 2687 | 25 |
| 36 |  | 8941 |  | 1422 | 8 | 7519 | 1 | 2481 | 24 |
| 37 | 9 | 8974 |  | 1342 | 8800 | 7632 | 11199 | 2368 | 23 |
| 38 | 8801 | 8915 |  | 1262 | 2 | 7653 | 7 | 2347 | 22 |
| 39 | 3 | 8764 |  | 1182 | 4 | 7583 | 5 | 2417 | 21 |
| 40 | 5 | 8523 |  | 1101 | 6 | 7422 | 3 | 2578 | 20 |
| 41 | 7 | 8192 |  | 1020 | 8 | 7172 | 1 | 2828 | 19 |
| 42 | 9 | 7772 |  | 0938 | 8810 | 6834 | 11189 | 3166 | 18 |
| 43 | 8811 | 7264 |  | 0856 | 2 | 6407 | 7 | 3593 | 17 |
| 44 | 3 | 6668 |  | 0774 | 4 | 5894 | 5 | 4106 | 16 |
| 45 | 5 | 5985 |  | 0691 | 6 | 5294 | 3 | 4706 | 15 |
| 46 | 7 | 5217 |  | 0608 | 8 | 4608 | 1 | 5392 | 14 |
| 47 | 9 | 4363 |  | 0525 | 8820 | 3838 | 11179 | 6162 | 13 |
| 48 | 8821 | 3425 |  | 0441 | 2 | 2984 |  | 7016 | 12 |
| 49 | 3 | 2404 |  | 0357 | 4 | 2046 | 5 | 7954 | 11 |
| 50 | 5 | 1299 |  | 0273 | 6 | 1026 | 3 | 8974 | 10 |
| 51 | 7 | 0112 |  | 0188 | 7 | 9924 | 2 | 0076 | 9 |
| 52 | 8 | 8844 |  | 0103 | 9 | 8741 | 0 | 1259 | 8 |
| 53 | 8830 | 7495 |  | 0017 | 8831 | 7478 | 11168 | 2522 | 7 |
| 54 | 2 | 6066 | 9998 | 9931 | 3 | 6134 | 6 | 3866 | 6 |
| 55 | 4 | 4557 |  | 9845 | 5 | 4712 | 4 | 5288 | 5 |
| 56 | 6 | 2969 |  | 9758 | 7 | 3211 | 2 | 6789 | 4 |
| 57 | 8 | 1304 |  | 9671 | 9 | 1633 | 0 | 8367 | 3 |
| 58 | 9 | 9561 |  | 9584 | 8840 | 9977 | 11159 | 0023 | 2 |
| 59 | 8841 | 7741 |  | 9496 | 2 | 8245 | 7 | 1755 | 1 |
| 60 | 3 | 5845 |  | 9408 | 4 | 6437 |  | 3563 | 0 |
|  |  |  | Sin. | . 86 |  |  | Tan. | 86 | M |


| M | Sin. 4 |  | Tan. 4 |  |  |  | 11155 | 3563 | 60 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 8843 | 5845 | 9998 | 9408 | 8844 | 6437 |  |  |  |
| 1 | 5 | $3^{8} 74$ |  | 9319 | 6 | 4554 | 3 | 5446 | 59 |
| 2 | 7 | 1827 |  | 9230 | 8 | 2597 | 1 | 7403 | 58 |
| 3 | 8 | 9707 |  | 9141 | 8850 | 0566 | 11149 | 9434 | 57 |
| 4 | 8850 | 7512 |  | 9052 | 1 | 8461 | 8 | 1539 | 56 |
| 5 |  | 5245 |  | 8962 | 3 | 6283 | 6 | 3717 | 55 |
| 6 | 4 | 2905 |  | 8871 | 5 | 4034 | 4 | 5966 | 54 |
| 7 | 6 | 0493 |  | 8780 | 7 | 1713 | 2 | 8287 | 53 |
| 8 | 7 | 8010 |  | 8689 | 8 | 9321 | 1 | 0679 | 52 |
| 9 | 9 | 5457 |  | 8598 | 8860 | 6859 | 11139 | 3141 | 51 |
| 10 | 8861 | 2833 |  | 8506 | 2 | 4327 | 7 | 5673 | 50 |
| 11 | 3 | 0139 |  | 8414 | 4 | 1725 | 5 | 8275 | 49 |
| 12 | 4 | 7376 |  | 8321 | 5 | 9055 | 4 | 0945 | 48 |
| 13 | 6 | 4545 |  | 8228 | 7 | 6317 | 2 | 3683 | 47 |
| 14 | 8 | 1646 |  | 8135 | 9 | 3511 | 0 | 6489 | 46 |
| 15 | 9 | 8680 |  | 8041 | 8871 | 0638 | 11128 | 9362 | 45 |
| 16 | 8871 | 5646 |  | 7947 |  | 7699 | 7 | 2301 | 44 |
| 17 | 3 | 2546 |  | 7853 | 4 | 4694 | 5 | 5306 | 43 |
| 18 | 4 | 9381 |  | 7758 | 6 | 1623 | 3 | 8377 | 42 |
| 19 | 6 | 6150 |  | 7663 | 7 | 8487 | 2 | 1513 | 41 |
| 20 | 8 | 2854 |  | 7567 | 9 | 5286 | 0 | 4714 | 40 |
| 21 | 9 | 9493 |  | 7471 | 8881 | 2022 | 11118 | 7978 | 39 |
| 22 | 8881 | 6069 |  | 7375 | 2 | 8694 | 7 | 1306 | 38 |
| 23 | 3 | 2581 |  | 7278 |  | 5303 | 5 | 4697 | 37 |
| 24 | 4 | 9031 |  | 7181 | 6 | 1850 | 3 | 8150 | 36 |
| 25 | 6 | 5418 |  | 7084 |  | 8334 | 2 | 1666 | 35 |
| 26 | 8 | 1743 |  | 6986 | 9 | 4757 | 0 | 5243 | 34 |
| 27 | 9 | 8007 |  | 6888 | 8891 | 1119 | 11108 | 8881 | 33 |
| 28 | 8891 | 4209 |  | 6790 | 2 | 7420 | 7 | 2580 | 32 |
| 29 | 3 | 0351 |  | 6691 | 4 | 3660 | 5 | 6340 | 31 |
| 30 | 4 | 6433 |  | 6591 |  | 9842 |  | 0158 | 30 |
|  |  |  | Sin. | . 85 |  |  | Tan. | 85 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 4 |  |  |  | Tan. 4 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 8894 | 6433 | 9998 | 6591 | 8895 | 9842 | 11104 | 0158 | 30 |
| 31 | 6 | 2455 |  | 6492 | 7 | 5963 | 2 | 4037 | 29 |
| 32 | 7 | 8418 |  | 6392 | 9 | 2026 | O | 7974 | 28 |
| 33 | 9 | 4322 |  | 6292 | 8900 | 8030 | 11099 | 1970 | 27 |
| 34 | 8901 | 0168 |  | 6191 | 2 | 3977 | 7 | 6023 | 26 |
| 35 | 2 | 5955 |  | 6090 | 3 | 9866 | 6 | 0134 | 25 |
| 36 | 4 | 1685 |  | 5988 | 5 | 5697 | 4 | 4303 | 24 |
| 37 | 5 | 7358 |  | 5886 | 7 | 1472 | 2 | 8528 | 23 |
| 38 | 7 | 2975 |  | 5784 | 8 | 7190 | 1 | 2810 | 22 |
| 39 | 8 | 8535 |  | 5682 | 8910 | 2853 | 11089 | 7147 | 21 |
| 40 | 8910 | 4039 |  | 5579 | 1 | 8460 | 8 | 1540 | 20 |
| 41 | 1 | 9487 |  | 5475 | 3 | 4012 | 6 | 5988 | 19 |
| 42 | 3 | 4881 |  | 5372 | 4 | 9509 | 5 | 0491 | 18 |
| 43 | 5 | 0219 |  | 5268 | 6 | 4952 | 3 | 5048 | 17 |
| 44 | 6 | 5504 |  | 5163 | 8 | 0340 | 1 | 9660 | 16 |
| 45 | 8 | 0734 |  | 5058 | 9 | 5675 | 0 | 4325 | 15 |
| 46 | 9 | 5911 |  | 4953 | 8921 | 0957 | 11078 | 9043 | 14 |
| 47 | 8921 | 1034 |  | 4848 | 2 | 6186 | 7 | 3814 | 13 |
| 48 | 2 | 6105 |  | 4742 | 4 | 1363 | 5 | 8637 | 12 |
| 49 | 4 | 1123 |  | 4636 | 5 | 6487 | 4 | 3513 | 11 |
| 50 | 5 | 6089 |  | 4529 | 7 | 1560 | 2 | 8440 | 10 |
| 51 | 7 | 1003 |  | 4422 | 8 | 6581 | 1 | 3419 | 9 |
| 52 | 8 | 5866 |  | 4315 | 8930 | 1552 | 11069 | 8448 | 8 |
| 53 | 8930 | 0678 |  | 4207 | 1 | 6471 | - 8 | 3529 | 7 |
| 54 | 1 | 5439 |  | 4099 | 3 | 1340 | 6 | 8660 | 6 |
| 55 | 3 | 0150 |  | 3990 | 4 | 6160 | 5 | 3840 | 5 |
| 56 | 4 | 4811 |  | 3881 | 6 | 0929 | 3 | 9071 | 4 |
| 57 | 5 | 9422 |  | 3772 | 7 | 5650 | 2 | 4350 | 3 |
| 58 | 7 | 3983 |  | 3663 | 9 | 0321 | 0 | 9679 | 2 |
| 59 | 8 | 8496 |  | 3553 | 8940 | 4944 | 11059 | 5056 | 1 |
| 60 | 8940 | 2960 |  | 3442 | 1 | 9518 | 8 | 0482 | 0 |
|  |  |  | Sin | . 85 |  |  | Tan. | 85 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 5 |  |  |  | Tan. 5 |  | 11058 | 0482 | 60 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 8940 | 2960 | 9998 | 3442 | 8941 | 9518 |  |  |  |
| 1 | 1 | 7376 |  | 3332 | 3 | 4044 | 6 | 5956 | 59 |
| 2 | 3 | 1743 |  | 3220 | 4 | 8523 | 5 | 1477 | 58 |
| 3 | 4 | 6063 |  | 3109 | 6 | 2954 | 3 | 7046 | 57 |
| 4 | 6 | 0335 |  | 2997 | 7 | 7338 | 2 | 2662 | 56 |
| 5 | 7 | 4561 |  | 2885 | 9 | 1676 | 0 | 8324 | 55 |
| 6 | 8 | 8739 |  | 2772 | 8950 | 5967 | 11049 | 4033 | 54 |
| 7 | 8950 | 2871 |  | 2660 | 2 | 0211 | 7 | 9789 | 53 |
| 8 | 1 | 6957 |  | 2546 | 3 | 4410 | 6 | 5590 | 52 |
| 9 | 3 | 0996 |  | 2433 | 4 | 8564 | 5 | 1436 | 51 |
| 10 | 4 | 4991 |  | 2318 | 6 | 2672 | 3 | 7328 | 50 |
| 11 | 5 | 8940 |  | 2204 | 7 | 6735 | 2 | 3265 | 49 |
| 12 | 7 | 2843 |  | 2089 | 9 | 0754 | 0 | 9246 | 48 |
| 13 | 8 | 6703 |  | 1974 | 8960 | 4728 | 11039 | 5272 | 47 |
| 14 | 8960 | 0517 |  | 1859 | 1 | 8659 | 8 | 1341 | 46 |
| 15 | 1 | 4288 |  | 1743 | 3 | 2545 | 6 | 7455 | 45 |
| 16 | 2 | 8014 |  | 1626 | 4 | 6388 | 5 | 3612 | 44 |
| 17 | 4 | 1697 |  | 1510 | 6 | 0188 | 3 | 9812 | 43 |
| 18 | 5 | 5337 |  | 1393 | 7 | 3944 | 2 | 6056 | 42 |
| 19 | 6 | 8934 |  | 1275 | 8 | 7658 | 1 | 2342 | 41 |
| 20 | 8 | 2487 |  | 1158 | 8970 | 1330 | 11029 | 8670 | 40 |
| 21 | 9 | 5999 |  | 1040 | 1 | 4959 | 8 | 5041 | 39 |
| 22 | 8970 | 9468 |  | 0921 | 2 | 8547 | 7 | 1453 | 38 |
| 23 | 2 | 2895 |  | 0802 | 4 | 2092 | 5 | 7908 | 37 |
| 24 | 3 | 6280 |  | o683 | 5 | 5597 | 4 | 4403 | 36 |
| 25 | 4 | 9624 |  | 0563 | 6 | 9060 | 3 | 0940 | 35 |
| 26 | 6 | 2926 |  | 0443 | 8 | 2483 | 1 | 7517 | 34 |
| 27 | 7 | 6188 |  | 0323 | 9 | 5865 | 0 | 4135 | 33 |
| 28 | 8 | 9408 |  | 0202 | 8980 | 9206 | 11019 | 0794 | 32 |
| 29 | 8980 | 2589 |  | 0081 | 2 | 2507 | 7 | 7493 | 31 |
| 30 | 1 | 5729 | 9997 | 9960 | 3 | 5769 | 6 | 4231 | 30 |
|  |  |  | Sin. | . 84 |  |  | Tan. | 84 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 5 |  |  |  | Tan. 5 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 8981 | 5729 | 9997 | 9960 | 8983 | 5769 | 11016 | 4231 | 30 |
| 31 | 2 | 8829 |  | 9838 | 4 | 8991 | 5 | 1009 | 29 |
| 32 | 4 | 1889 |  | 9716 | 6 | 2173 | 3 | 7827 | 28 |
| 33 | 5 | 4910 |  | 9593 | 7 | 5317 | 2 | 4683 | 27 |
| 34 | 6 | 7891 |  | 9470 | 8 | 8421 | 1 | 1579 | 26 |
| 35 | 8 | 0834 |  | 9347 | 8990 | 1487 | 11009 | 8513 | 25 |
| 36 | 9 | 3737 |  | 9223 | 1 | 4514 | 8 | 5486 | 24 |
| 37 | 8990 | 6602 |  | 9099 | 2 | 7503 | 7 | 2497 | 23 |
| 38 | 1 | 9429 |  | 8975 | 4 | 0454 | 5 | 9546 | 22 |
| 39 | 3 | 2217 |  | 8850 | 5 | 3367 | 4 | 6633 | 21 |
| 40 | 4 | 4968 |  | 8725 | 6 | 6243 | 3 | 3757 | 20 |
| 41 | 5 | 7681 |  | 8599 | 7 | 9081 | 2 | 0919 | 19 |
| 42 | 7 | 0356 |  | 8473 | 9 | 1883 | 0 | 8117 | 18 |
| 43 | 8 | 2994 |  | 8347 | 9000 | 4647 | 10999 | 5353 | 17 |
| 44 | 9 | 5595 |  | 8220 | 1 | 7375 | 8 | 2625 | 16 |
| 45 | 9000 | 8160 |  | 8093 | 3 | 0066 | 6 | 9934 | 15 |
| 46 | 2 | 0687 |  | 7966 | 4 | 2721 | 5 | 7279 | 14 |
| 47 | 3 | 3179 |  | 7838 | 5 | 5340 | 4 | 4660 | 13 |
| 48 | 4 | 5634 |  | 7710 | 6 | 7924 | 3 | 2076 | 12 |
| 49 | 5 | 8053 |  | 7582 | 8 | 0471 | 1 | 9529 | 11 |
| 50 | 7 | 0436 |  | 7453 | 9 | 2984 | 0 | 7016 | 10 |
| 51 | 8 | 2784 |  | 7323 | 9010 | 5461 | 10989 | 4539 | 9 |
| 52 | 9 | 5096 |  | 7194 | 1 | 7903 | 8 | 2097 | 8 |
| 53 | 9010 | 7374 |  | 7064 | 3 | 0310 | 6 | 9690 | 7 |
| 54 | 1 | 9616 |  | 6933 | 4 | 2682 | 5 | 7318 | 6 |
| 55 | 3 | 1823 |  | 6803 | 5 | 5021 | 4 | 4979 | 5 |
| 56 | 4 | 3996 |  | 6672 | 6 | 7325 |  | 2675 | 4 |
| 57 | 5 | 6135 |  | 6540 | 7 | 9594 | 2 | 0406 | 3 |
| 58 | 6 | 8239 |  | 6408 | 9 | 1831 | 0 | 8169 | 2 |
| 59 | 8 | 0309 |  | 6276 | 9020 | 4033 | 10979 | 5967 | 1 |
| 60 | 9 | 2346 |  | 6143 | 1 | 6202 | 8 | 3798 | 0 |
|  |  |  | Sin | . 84 |  |  | Tan. | 84 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 6 |  |  |  | Tan. 6 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9019 | 2346 | 9997 | 6143 | 9021 | 6202 | 10978 | 3798 | 60 |
| 1 | 9020 | 4348 |  | 6011 | 2 | 8338 | 7 | 1662 | 59 |
| 2 | 1 | 6318 |  | 5877 | 4 | 0441 | 5 | 9559 | 58 |
| 3 | 2 | 8254 |  | 5743 | 5 | 2510 | 4 | 7490 | 57 |
| 4 | 4 | 0157 |  | 5609 | 6 | 4548 | 3 | 5452 | 56 |
| 5 | 5 | 2027 |  | 5475 | 7 | 6552 | 2 | 3448 | 55 |
| 6 | 6 | 3865 |  | 5340 | 8 | 8524 | 1 | 1476 | 54 |
| 7 | 7 | 5669 |  | 5205 | 9030 | 0464 | 10969 | 9536 | 53 |
| 8 | 8 | 7442 |  | 5069 | 1 | 2373 | 8 | 7627 | 52 |
| 9 | 9 | 9182 |  | 4933 | 2 | 4249 | 7 | 5751 | 51 |
| 10 | 9031 | 0890 |  | 4797 | 3 | 6093 | 6 | 3907 | 50 |
| 11 | 2 | 2567 |  | 4660 | 4 | 7906 | 5 | 2094 | 49 |
| 12 | 3 | 4212 |  | 4523 | 5 | 9688 | 4 | 0312 | 48 |
| 13 | 4 | 5825 |  | 4386 | 7 | 1439 |  | 8561 | 47 |
| 14 | 5 | 7407 |  | 4248 | 8 | 3159 | 1 | 6841 | 46 |
| 15 | 6 | 8958 |  | 4110 | 9 | 4848 | 0 | 5152 | 45 |
| 16 | 8 | 0477 |  | 3971 | 9040 | 6506 | 10959 | 3494 | 44 |
| 17 | 9 | 1966 |  | 3833 | 1 | 8134 | 8 | 1866 | 43 |
| 18 | 9040 | 3424 |  | 3693 | 2 | 9731 | 7 | 0269 | 42 |
| 19 | 1 | 4852 |  | 3554 | 4 | 1299 | 5 | 8701 | 41 |
| 20 | 2 | 6249 |  | 3414 |  | 2836 | 4 | 7164 | 40 |
| 21 | 3 | 7617 |  | 3273 | 6 | 4343 | 3 | 5657 | 39 |
| 22 | 4 | 8954 |  | 3132 |  | 5821 | 2 | 4179 | 38 |
| 23 | 6 | 0261 |  | 2991 | 8 | 7270 | 1 | 2730 | 37 |
| 24 | 7 | 1538 |  | 2850 |  | 8689 | 0 | 1311 | 36 |
| 25 | 8 | 2786 |  | 2708 | 9051 | 0078 | 10948 | 9922 | 35 |
| 26 | 9 | 4005 |  | 2566 | 2 | 1439 | 7 | 8561 | 34 |
| 27 | 9050 | 5194 |  | 2423 | 3 | 2771 | 6 | 7229 | 33 |
| 28 | 1 | 6354 |  | 2280 | 4 | 4074 | 5 | 5926 | 32 |
| 29 | 2 | 7485 |  | 2137 | 5 | 5349 | 4 | 4651 | $3^{1}$ |
| 30 | 3 | 8588 |  | 1993 |  | 6595 |  | 3405 | 30 |
|  |  |  | Sin. | . 83 |  |  | Tan | 83 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 6 |  | Tan. 6 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9053 | 8588 | 9997 | 1993 | 9056 | 6595 | 10943 | 3405 | 30 |
| 31 | 4 | 9661 |  | 1849 | 7 | 7813 | 2 | 2187 | 29 |
| 32 |  | 0706 |  | 1704 | 8 | 9002 | 1 | 0998 | 28 |
| 33 | 7 | 1723 |  | 1559 | 9060 | 0164 | 10939 | 9836 | 27 |
| 34 | 8 | 2711 |  | 1414 | 1 | 1297 | 8 | 8703 | 26 |
| 35 | 9 | 3672 |  | 1268 | 2 | 2403 | 7 | 7597 | 25 |
| 36 | 9060 | 4604 |  | 1122 | 3 | 3482 | 6 | 6518 | 24 |
| 37 | 1 | 5509 |  | 0976 | 4 | 4533 | 5 | 5467 | 23 |
| 38 | 2 | 6386 |  | 0829 | 5 | 5556 | 4 | 4444 | 22 |
| 39 | 3 | 7235 |  | 0682 | 6 | 6553 | 3 | 3447 | 21 |
| 40 | 4 | 8057 |  | 0535 | 7 | 7522 | 2 | 2478 | 20 |
| 41 | 5 | 8852 |  | 0387 | 8 | 8465 | 1 | 1535 | 19 |
| 42 | 6 | 9619 |  | 0239 | 9 | 9381 | 0 | o619 | 18 |
| 43 | 8 | 0360 |  | 0090 | 9071 | 0270 | 10928 | 9730 | 17 |
| 44 | 9 | 1074 | 9996 | 9941 | 2 | 1133 | 7 | 8867 | 16 |
| 45 | 9070 | 1761 |  | 9792 | 3 | 1969 | 6 | 8031 | 15 |
| 46 | 1 | 2421 |  | 9642 | 4 | 2779 | 5 | 7221 | 14 |
| 47 | 2 | 3055 |  | 9492 | 5 | 3563 | 4 | 6437 | 13 |
| 48 | 3 | 3663 |  | 9342 | 6 | 4321 | 3 | 5679 | 12 |
| 49 | 4 | 4244 |  | 9191 | 7 | 5053 | 2 | 4947 | 11 |
| 50 | 5 | 4799 |  | 9040 | 8 | 5760 | 1 | 4240 | 10 |
| 51 | 6 | 5329 |  | 8888 | 9 | 6441 | 0 | 3559 | 9 |
| 52 | 7 | 5832 |  | 8736 | 9080 | 7096 | 10919 | 2904 | 8 |
| 53 | 8 | 6310 |  | 8584 | 1 | 7726 | - | 2274 | 7 |
| 54 |  | 6762 |  | 8431 | 2 | 8331 |  | 1669 | 6 |
| 55 | 9080 | 7189 |  | 8278 | 3 | 8911 | 6 | 1089 | 5 |
| 56 |  | 7590 |  | 8125 | 4 | 9466 | 5 | 0534 | 4 |
| 57 | 2 | 7966 |  | 7971 | 5 | 9996 | 4 | 0004 | 3 |
| 58 | 3 | 8317 |  | 7817 | 7 | 0501 | 2 | 9499 | 2 |
| 59 | 4 | 8643 |  | 7662 | 8 | 0981 | 1 | 9019 | 1 |
| 60 | 5 | 8945 |  | 7507 | 9 | 1438 |  | 8562 | 0 |
|  |  |  | Sin | . 83 |  |  | Tan. | 83 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 7 |  |  |  | Tan. 7 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9085 | 8945 | 9996 | 7507 | 9089 | 1438 | 10910 | 8562 | 60 |
| 1 | 6 | 9221 |  | 7352 | 9090 | 1869 | 10909 | 8131 | 59 |
| 2 | 7 | 9473 |  | 7196 | 1 | 2277 | 8 | 7723 | 58 |
| 3 | 8 | 9700 |  | 7040 | 2 | 2660 |  | 7340 | 57 |
| 4 | 9 | 9903 |  | 6884 | 3 | 3020 | 6 | 6980 | 56 |
| 5 | 9091 | 0082 |  | 6727 | 4 | 3355 | 5 | 6645 | 55 |
| 6 | 2 | 0237 |  | 6570 | 5 | 3667 | 4 | 6333 | 54 |
| 7 | 3 | 0367 |  | 6412 | 6 | 3955 | 3 | 6045 | 53 |
| 8 | 4 | 0474 |  | 6254 | 7 | 4219 | 2 | 5781 | 52 |
| 9 | 5 | 0556 |  | 6096 | 8 | 4460 | 1 | 5540 | 51 |
| 10 | 6 | 0615 |  | 5937 | 9 | 4678 | 0 | 5322 | 50 |
| 11 | 7 | o651 |  | 5778 | 9100 | 4872 | 10899 | 5128 | 49 |
| 12 | 8 | o662 |  | 5619 | 1 | 5044 | 8 | 4956 | 48 |
| 13 | 9 | 0651 |  | 5459 | 2 | 5192 | 7 | 4808 | 47 |
| 14 | 9100 | 0616 |  | 5299 | 3 | 5317 | 6 | 4683 | 46 |
| 15 | 1 | 0558 |  | 5138 | 4 | 5420 | 5 | 4580 | 45 |
| 16 | 2 | 0477 |  | 4977 | 5 | 5500 | 4 | 4500 | 44 |
| 17 | 3 | 0373 |  | 4816 | 6 | 5557 | 3 | 4443 | 43 |
| 18 | 4 | 0246 |  | 4655 | 7 | 5591 | 2 | 4409 | 42 |
| 19 | 5 | 0096 |  | 4493 | 8 | 5604 | 1 | 4396 | 41 |
| 20 | 5 | 9924 |  | 4330 | 9 | 5594 | 0 | 4406 | 40 |
| 21 | 6 | 9729 |  | 4167 | 9110 | 5562 | 10889 | 4438 | 39 |
| 22 | 7 | 9512 |  | 4004 | 1 | 5508 | 8 | 4492 | 38 |
| 23 | 8 | 9272 |  | 3841 | 2 | 5431 | 7 | 4569 | 37 |
| 24 | 9 | 9010 |  | 3677 | 3 | 5333 | 6 | 4667 | 36 |
| 25 | 9110 | 8726 |  | 3513 | 4 | 5213 | 5 | 4787 | 35 |
| 26 | 1 | 8420 |  | 3348 | 5 | 5072 | 4 | 4928 | 34 |
| 27 | 2 | 8092 |  | 3183 | 6 | 4909 | 3 | 5091 | 33 |
| 28 | 3 | 7742 |  | 3018 | 7 | 4724 | 2 | 5276 | 32 |
| 29 | 4 | 7370 |  | 2852 | 8 | 4518 | 1 | 5482 | 31 |
| 30 | 5 | 6977 |  | 2686 |  | 4291 | 0 | 5709 | 30 |
|  |  |  | Sin. | . 82 |  |  | Tan. | 82 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 7 |  |  | Tan. 7 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 91156977 | 9996 | 2686 | 9119 | 4291 | 10880 | 5709 | 30 |
| 31 | 66562 |  | 2519 | 9120 | 4043 | 10879 | 5957 | 29 |
| 32 | 76125 |  | 2352 | 1 | 3773 | 8 | 6227 | 28 |
| 33 | 85667 |  | 2185 | 2 | 3482 | 7 | 6518 | 27 |
| 34 | 95188 |  | 2017 | 3 | 3171 | 6 | 6829 | 26 |
| 35 | 91204688 |  | 1849 | 4 | 2839 | 5 | 7161 | 25 |
| 36 | 14167 |  | 1681 | 5 | 2486 | 4 | 7514 | 24 |
| 37 | 23624 |  | 1512 | 6 | 2112 | 3 | 7888 | 23 |
| 38 | 33061 |  | 1343 | 7 | 1718 | 2 | 8282 | 22 |
| 39 | 42477 |  | 1174 | 8 | 1303 | 1 | 8697 | 21 |
| 40 | 51872 |  | 1004 | 9 | 0868 | 0 | 9132 | 20 |
| 41 | 61246 |  | 0834 | 9130 | 0413 | 10869 | 9587 | 19 |
| 42 | 70600 |  | 0663 | 0 | 9937 | 9 | 0063 | 18 |
| 43 | 79934 |  | 0492 | 1 | 9442 | 8 | 0558 | 17 |
| 44 | 89247 |  | 0321 | 2 | 8926 | 7 | 1074 | 16 |
| 45 | 98539 |  | 0149 | 3 | 8391 | 6 | 1609 | 15 |
| 46 | 91307812 | 9995 | 9977 | 4 | 7835 | 5 | 2165 | 14 |
| 47 | 17064 |  | 9804 | 5 | 7260 | 4 | 2740 | 13 |
| 48 | 26297 |  | 9631 | 6 | 6665 | 3 | 3335 | 12 |
| 49 | 35509 |  | 9458 | 7 | 6051 | 2 | 3949 | 11 |
| 50 | 44702 |  | 9284 | 8 | 5417 | 1 | 4583 | 10 |
| 51 | 53875 |  | 9111 | 9 | 4764 | 0 | 5236 | 9 |
| 52 | 63028 |  | 8936 | 9140 | 4092 | 10859 | 5908 | 8 |
| 53 | 72161 |  | 8761 | 1 | 3400 | 8 | 6600 | 7 |
| 54 | 81275 |  | 8586 | 2 | 2689 | 7 | 7311 | 6 |
| 55 | 90370 |  | 8411 | 3 | 1959 | 6 | 8041 | 5 |
| 56 | 99445 |  | 8235 | 4 | 1210 | 5 | 8790 | 4 |
| 57 | 91408501 |  | 8059 | 5 | 0442 | 4 | 9558 | 3 |
| 58 | 17537 |  | 7882 | 5 | 9655 | 4 | 0345 | 2 |
| 59 | 26555 |  | 7705 | 6 | 8849 | 3 | 1151 | 1 |
| 60 | 35553 |  | 7528 | 7 | 8025 | 2 | 1975 | 0 |
|  |  | Sin | 82 |  |  | Tan. | 82 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 8 |  | Tan. 8 |  |  |  | 10852 | 1975 | 60 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9143 | 5553 | 9995 | 7528 | 9147 | 8025 |  |  |  |
| 1 | 4 | 4532 |  | 7350 | 8 | 7182 | 1 | 2818 | 59 |
| 2 | 5 | 3493 |  | 7172 | 9 | 6321 | 0 | 3679 | 58 |
| 3 | 6 | 2435 |  | 6993 | 9150 | 5441 | 10849 | 4559 | 57 |
| 4 | 7 | 1358 |  | 6815 | 1 | 4543 | 8 | 5457 | 56 |
| 5 | 8 | 0262 |  | 6635 | 2 | 3627 | 7 | 6373 | 55 |
| 6 | 8 | 9148 |  | 6456 | 3 | 2692 | 6 | 7308 | 54 |
| 7 | 9 | 8015 |  | 6276 | 4 | 1739 | 5 | 8261 | 53 |
| 8 | 9150 | 6864 |  | 6095 | 5 | 0769 | 4 | 9231 | 52 |
| 9 | 1 | 5694 |  | 5915 | 5 | 9780 | 4 | 0220 | 51 |
| 10 | 2 | 4507 |  | 5734 | 6 | 8773 | 3 | 1227 | 50 |
| 11 | 3 | 3301 |  | 5552 | 7 | 7748 | 2 | 2252 | 49 |
| 12 | 4 | 2076 |  | 5370 | 8 | 6706 | 1 | 3294 | 48 |
| 13 | 5 | 0834 |  | 5188 |  | 5646 | 0 | 4354 | 47 |
| 14 | 5 | 9574 |  | 5005 | 9160 | 4569 | 10839 | 5431 | 46 |
| 15 | 6 | 8296 |  | 4822 | 1 | 3473 | 8 | 6527 | 45 |
| 16 | 7 | 7000 |  | 4639 | 2 | 2361 | 7 | 7639 | 44 |
| 17 | 8 | 5686 |  | 4455 | 3 | 1231 | 6 | 8769 | 43 |
| 18 | 9 | 4354 |  | 4271 | 4 | 0083 | 5 | 9917 | 42 |
| 19 | 9160 | 3005 |  | 4087 | 4 | 8919 | 5 | 1081 | 41 |
| 20 | 1 | 1639 |  | 3902 |  | 7737 | 4 | 2263 | 40 |
| 21 | 2 | 0254 |  | 3717 | 6 | 6538 | 3 | 3462 | 39 |
| 22 | 2 | 8853 |  | 3531 | 7 | 5322 | 2 | 4678 | 38 |
| 23 | 3 | 7434 |  | 3345 | 8 | 4089 | 1 | 5911 | 37 |
| 24 | 4 | 5998 |  | 3159 |  | 2839 | 0 | 7161 | 36 |
| 25 | 5 | 4544 |  | 2972 | 9170 | 1572 | 10829 | 8428 | 35 |
| 26 | 6 | 3074 |  | 2785 |  | 0289 | 8 | 9711 | 34 |
| 27 | 7 | 1586 |  | 2597 |  | 8989 | 8 | 1011 | 33 |
| 28 | 8 | 0081 |  | 2409 |  | 7672 | 7 | 2328 | 32 |
| 29 | 8 | 8559 |  | 2221 |  | 6338 | 6 | 3662 | 31 |
| 30 | 9 | 7021 |  | 2033 |  | 4988 |  | 5012 | 30 |
|  |  |  | Sin. | . 81 |  |  | Tan. | 81 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 8 |  |  |  | Tan. 8 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9169 | 7021 | 9995 | 2033 | 9174 | 4988 | 10825 | 5012 | 30 |
| 31 | 9170 | 5465 |  | 1844 | 5 | 3622 | 4 | 6378 | 29 |
| 32 | 1 | 3893 |  | 1654 | 6 | 2239 | 3 | 7761 | 28 |
| 33 | 2 | 2305 |  | 1464 | 7 | 0840 | 2 | 9160 | 27 |
| 34 | 3 | 0699 |  | 1274 | 7 | 9425 | 2 | 0575 | 26 |
| 35 | 3 | 9077 |  | 1084 | 8 | 7993 | 1 | 2007 | 25 |
| 36 | 4 | 7439 |  | o893 | 9 | 6546 | 0 | 3454 | 24 |
| 37 | 5 | 5784 |  | 0702 | 9180 | 5082 | 10819 | 4918 | 23 |
| 38 | 6 | 4112 |  | 0510 | 1 | 3602 | 8 | 6398 | 22 |
| 39 | 7 | 2425 |  | 0318 | 2 | 2106 | 7 | 7894 | 21 |
| 40 | 8 | 0721 |  | 0126 | 3 | 0595 | 6 | 9405 | 20 |
| 41 | 8 | 9001 | 9994 | 9933 | 3 | 9068 | 6 | 0932 | 19 |
| 42 | 9 | 7265 |  | 9740 | 4 | 7525 | 5 | 2475 | 18 |
| 43 | 9180 | 5512 |  | 9546 | 5 | 5966 | 4 | 4034 | 17 |
| 44 | 1 | 3744 |  | 9352 | 6 | 4392 | 3 | 5608 | 16 |
| 45 | 2 | 1960 |  | 9158 | 7 | 2802 | 2 | 7198 | 15 |
| 46 | 3 | 0160 |  | 8964 | 8 | 1196 | 1 | 8804 | 14 |
| 47 | 3 | 8344 |  | 8769 | 8 | 9575 | 1 | 0425 | 13 |
| 48 | 4 | 6512 |  | 8573 | 9 | 7939 | 0 | 2061 | 12 |
| 49 | 5 | 4665 |  | 8377 | 9190 | 6287 | 10809 | 3713 | 11 |
| 50 | 6 | 2802 |  | 8181 | 1 | 4621 | 8 | 5379 | 10 |
| 51 | 7 | 0923 |  | 7985 | 2 | 2939 |  | 7061 | 9 |
| 52 |  | 9029 |  | 7788 | 3 | 1241 | 6 | 8759 | 8 |
| 53 | 8 | 7120 |  | 7591 | 3 | 9529 | 6 | 0471 | 7 |
| 54 | 9 | 5195 |  | 7393 | 4 | 7802 | 5 | 2198 | 6 |
| 55 | 9190 | 3254 |  | 7195 | 5 | 6059 | 4 | 3941 | 5 |
| 56 | 1 | 1299 |  | 6997 |  | 4302 |  | 5698 | 4 |
| 57 | 1 | 9328 |  | 6798 | 7 | 2530 | 2 | 7470 | 3 |
| 58 | 2 | 7342 |  | 6599 | 8 | 0743 | 1 | 9257 | 2 |
| 59 | 3 | 5341 |  | 6399 | 8 | 8941 | 1 | 1059 | 1 |
| 60 | 4 | 3324 |  | 6199 | 9 | 7125 |  | 2875 | 0 |
|  |  |  | Sin. | . 81 |  |  | Tan. | 81 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 9 |  |  |  | Tan. 9 |  | 10800 | 2875 | 60 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9194 | 3324 | 9994 | 6199 | 9199 | 7125 |  |  |  |
| 1 | 5 | 1293 |  | 5999 | 9200 | 5294 | 10799 | 4706 | 59 |
| 2 | 5 | 9247 |  | 5798 | 1 | 3449 | 8 | 6551 | 58 |
| 3 |  | 7186 |  | 5597 | 2 | 1588 | 7 | 8412 | 57 |
| 4 | 7 | 5110 |  | 5396 | 2 | 9714 | 7 | 0286 | 56 |
| 5 | 8 | 3019 |  | 5194 | 3 | 7825 | 6 | 2175 | 55 |
| 6 | 9 | o913 |  | 4992 | 4 | 5922 | 5 | 4078 | 54 |
| 7 | 9 | 8793 |  | 4789 | 5 | 4004 | 4 | 5996 | 53 |
| 8 | 9200 | 6658 |  | $45^{87}$ | 6 | 2072 | 3 | 7928 | 52 |
| 9 | 1 | 4509 |  | 4383 | 7 | 0126 | 2 | 9874 | 51 |
| 10 | 2 | 2345 |  | 4180 | 7 | 8165 | 2 | 1835 | 50 |
| 11 | 3 | 0167 |  | 3975 | 8 | 6191 | 1 | 3809 | 49 |
| 12 | 3 | 7974 |  | 3771 | 9 | 4203 | 0 | 5797 | 48 |
| 13 | 4 | 5766 |  | 3566 | 9210 | 2200 | 10789 | 7800 | 47 |
| 14 | 5 | 3545 |  | 3361 | 1 | 0184 | 8 | 9816 | 46 |
| 15 | 6 | 1309 |  | 3156 | 1 | 8153 | 8 | 1847 | 45 |
| 16 | 6 | 9059 |  | 2950 | 2 | 6109 | 7 | 3891 | 44 |
| 17 | 7 | 6795 |  | 2743 | 3 | 4051 | 6 | 5949 | 43 |
| 18 | 8 | 4516 |  | 2537 | 4 | 1980 | 5 | 8020 | 42 |
| 19 | 9 | 2224 |  | 2330 | 4 | 9894 | 5 | 0106 | 41 |
| 20 | 9 | 9917 |  | 2122 | 5 | 7795 | 4 | 2205 | 40 |
| 21 | 9210 | 7597 |  | 1914 |  | 5683 | 3 | 4317 | 39 |
| 22 | 1 | 5263 |  | 1706 | 7 | 3556 | 2 | 6444 | 38 |
| 23 | 2 | 2914 |  | 1498 | 8 | 1417 | 1 | 8583 | 37 |
| 24 | 3 | 0552 |  | 1289 | 8 | 9264 |  | 0736 | 36 |
| 25 | 3 | 8176 |  | 1079 | 9 | 7097 |  | 2903 | 35 |
| 26 | 4 | 5787 |  | 0870 | 9220 | 4917 | 10779 | 5083 | 34 |
| 27 | 5 | 3384 |  | o659 | 1 | 2724 | 8 | 7276 | 33 |
| 28 |  | o967 |  | 0449 | 2 | 0518 | 7 | 9482 | 32 |
| 29 | 6 | 8536 |  | 0238 | 2 | 8298 | 7 | 1702 | 31 |
| 30 | 7 | 6092 |  | 0027 |  | 6065 |  | 3935 | 30 |
|  |  |  | Sin. | . 80 |  |  | Tan | 80 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 9 |  |  |  | Tan. 9 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9217 | 6092 | 9994 | 0027 | 9223 | 6065 | 10776 | 3935 | 30 |
| 31 | 8 | 3635 | 9993 | 9815 | 4 | 3819 | 5 | 6181 | 29 |
| 32 | 9 | 1164 |  | 9603 | 5 | 1561 | 4 | 8439 | 28 |
| 33 | 9 | 8680 |  | 9391 | 5 | 9289 | 4 | 0711 | 27 |
| 34 | 9220 | 6182 |  | 9178 | 6 | 7004 | 3 | 2996 | 26 |
| 35 | 1 | 3671 |  | 8965 | 7 | 4706 | 2 | 5294 | 25 |
| 36 | 2 | 1147 |  | 8752 | 8 | 2395 | 1 | 7605 | 24 |
| 37 | 2 | 8609 |  | 8538 | 9 | 0071 | 0 | 9929 | 23 |
| 38 | 3 | 6059 |  | 8324 | 9 | 7735 | 0 | 2265 | 22 |
| 39 | 4 | 3495 |  | 8109 | 9230 | 5386 | 10769 | 4614 | 21 |
| 40 | 5 | 0918 |  | 7894 | 1 | 3024 | 8 | 6976 | 20 |
| 41 | 5 | 8328 |  | 7679 | 2 | 0650 | 7 | 9350 | 19 |
| 42 | 6 | 5725 |  | 7463 | 2 | 8262 | 7 | 1738 | 18 |
| 43 | 7 | 3110 |  | 7247 |  | 5863 | 6 | 4137 | 17 |
| 44 |  | 0481 |  | 7030 | 4 | 3451 | 5 | 6549 | 16 |
| 45 | 8 | 7839 |  | 6813 | 5 | 1026 | 4 | 8974 | 15 |
| 46 | 9 | 5185 |  | 6596 | 5 | 8589 | 4 | 1411 | 14 |
| 47 | 9230 | 2518 |  | 6378 | 6 | 6139 | 3 | 3861 | 13 |
| 48 |  | 9838 |  | 6160 | 7 | 3678 | 2 | 6322 | 12 |
| 49 | 1 | 7145 |  | 5942 | 8 | 1203 | 1 | 8797 | 11 |
| 50 | 2 | 4440 |  | 5723 | 8 | 8717 | 1 | 1283 | 10 |
| 51 | 3 | 1722 |  | 5504 | 9 | 6218 | 0 | 3782 | 9 |
| 52 | 3 | 8992 |  | 5285 | 9240 | 3708 | 10759 | 6292 | 8 |
| 53 | 4 | 6249 |  | 5065 | 1 | 1185 | 8 | 8815 | 7 |
| 54 | 5 | 3494 |  | 4844 | 1 | 8650 | 8 | 1350 | 6 |
| 55 | 6 | 0726 |  | 4624 | 2 | 6103 | 7 | 3897 | 5 |
| 56 | 6 | 7946 |  | 4403 | 3 | 3543 | 6 | 6457 | 4 |
| 57 | 7 | 5153 |  | 4181 | 4 | 0972 | 5 | 9028 | 3 |
| 58 | 8 | 2349 |  | 3959 | 4 | 8389 | 5 | 1611 | 2 |
| 59 | 8 | 9532 |  | 3737 | 5 | 5794 | 4 | 4206 | 1 |
| 60 | 9 | 6702 |  | 3515 | 6 | 3188 | 3 | 6812 | 0 |
|  |  |  | Sin | 80 |  |  | Tan. | 80 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 10 |  |  |  | Tan. 10 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9239 | 6702 | 9993 | 3515 | 9246 | 3188 | 10753 | 6812 | 60 |
| 1 | 9240 | 3861 |  | 3292 | 7 | 0569 | 2 | 9431 | 59 |
| 2 | 1 | 1007 |  | 3068 |  | 7939 | 2 | 2061 | 58 |
| 3 | 1 | 8141 |  | 2845 | 8 | 5297 | 1 | 4703 | 57 |
| 4 | 2 | 5264 |  | 2621 |  | 2643 | 0 | 7357 | 56 |
| 5 | 3 | 2374 |  | 2396 | 9 | 9978 | 0 | 0022 | 55 |
| 6 | 3 | 9472 |  | 2171 | 9250 | 7301 | 10749 | 2699 | 54 |
| 7 | 4 | 6558 |  | 1946 |  | 4612 | 8 | 5388 | 53 |
| 8 | 5 | 3632 |  | 1720 | 2 | 1912 | 7 | 8088 | 52 |
| 9 | 6 | 0695 |  | 1494 | 2 | 9200 | 7 | 0800 | 51 |
| 10 | 6 | 7746 |  | 1268 | 3 | 6477 | 6 | 3523 | 50 |
| 11 | 7 | 4784 |  | 1041 | 4 | 3743 | 5 | 6257 | 49 |
| 12 | 8 | 1811 |  | 0814 | 5 | 0997 | 4 | 9003 | 48 |
| 13 | 8 | 8827 |  | 0587 | 5 | 8240 | 4 | 1760 | 47 |
| 14 | 9 | 5830 |  | 0359 | 6 | 5472 | 3 | 4528 | 46 |
| 15 | 9250 | 2822 |  | 0131 | 7 | 2692 | 2 | 7308 | 45 |
| 16 | 0 | 9803 | 9992 | 9902 | 7 | 9901 | 2 | 0099 | 44 |
| 17 | 1 | 6772 |  | 9673 | 8 | 7099 | 1 | 2901 | 43 |
| 18 | 2 | 3729 |  | 9444 |  | 4285 | 0 | 5715 | 42 |
| 19 | 3 | o675 |  | 9214 | 9260 | 1461 | 10739 | 8539 | $4^{1}$ |
| 20 | 3 | 7609 |  | 8984 | 0 | 8625 | 9 | 1375 | 40 |
| 21 | 4 | 4532 |  | 8753 | 1 | 5779 | 8 | 4221 | 39 |
| 22 | 5 | 1444 |  | 8522 | 2 | 2921 | 7 | 7079 | 38 |
| 23 | 5 | 8344 |  | 8291 | 3 | 0053 | 6 | 9947 | 37 |
| 24 | 6 | 5233 |  | 8059 | 3 | 7173 | 6 | 2827 | 36 |
| 25 | 7 | 2110 |  | 7827 | 4 | 4283 | 5 | 5717 | 35 |
| 26 | 7 | 8977 |  | 7595 | 5 | 1382 | 4 | 8618 | 34 |
| 27 | 8 | 5832 |  | 7362 | 5 | 8470 | 4 | 1530 | 33 |
| 28 | 9 | 2676 |  | 7129 | 6 | 5547 | 3 | 4453 | 32 |
| 29 | 9 | 9509 |  | 6895 | 7 | 2613 | 2 | 7387 | 31 |
| 30 | 9260 | 6330 |  | 6661 |  | 9669 |  | 0331 | 30 |
|  |  |  | Sin. | . 79 |  |  | Tan. | 79 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 10 |  |  |  | Tan. 10 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9260 | 6330 | 9992 | 6661 | 9267 | 9669 | 10732 | 0331 | 30 |
| 31 | 1 | 3141 |  | 6427 | 8 | 6714 | 1 | 3286 | 29 |
| 32 | 1 | 9941 |  | 6192 | 9 | 3749 | 0 | 6251 | 28 |
| 33 | 2 | 6729 |  | 5957 | 9270 | 0772 | 10729 | 9228 | 27 |
| 34 | 3 | 3507 |  | 5722 | 0 | 7786 | 9 | 2214 | 26 |
| 35 | 4 | 0274 |  | 5486 | 1 | 4788 | 8 | 5212 | 25 |
| 36 | 4 | 7030 |  | 5250 |  | 1780 | 7 | 8220 | 24 |
| 37 | 5 | 3775 |  | 5013 | 2 | 8762 | 7 | 1238 | 23 |
| 38 | 6 | 0509 |  | 4776 | 3 | 5733 | 6 | 4267 | 22 |
| 39 | 6 | 7232 |  | 4539 | 4 | 2694 | 5 | 7306 | 21 |
| 40 | 7 | 3945 |  | 4301 | 4 | 9644 | 5 | 0356 | 20 |
| 41 | 8 | o647 |  | 4063 | 5 | 6584 | 4 | 3416 | 19 |
| 42 | 8 | 7338 |  | 3824 | 6 | 3514 | 3 | 6486 | 18 |
| 43 | 9 | 4019 |  | 3585 | 7 | 0434 | 2 | 9566 | 17 |
| 44 | 9270 | 0689 |  | 3346 | 7 | 7343 | 2 | 2657 | 16 |
| 45 | 0 | 7348 |  | 3106 | 8 | 4242 | 1 | 5758 | 15 |
| 46 | 1 | 3997 |  | 2866 | 9 | 1131 | 0 | 8869 | 14 |
| 47 | 2 | 0635 |  | 2626 | 9 | 8009 | 0 | 1991 | 13 |
| 48 | 2 | 7263 |  | 2385 | 9280 | 4878 | 10719 | 5122 | 12 |
| 49 | 3 | 3880 |  | 2144 | 1 | 1736 | 8 | 8264 | 11 |
| 50 | 4 | 0487 |  | 1902 | 1 | 8585 | 8 | 1415 | 10 |
| 51 | 4 | 7083 |  | 1660 | 2 | 5423 | 7 | 4577 | 9 |
| 52 | 5 | 3669 |  | 1418 | 3 | 2251 |  | 7749 | 8 |
| 53 | 6 | 0245 |  | 1175 | 3 | 9070 | 6 | 0930 | 7 |
| 54 | 6 | 6811 |  | 0932 | 4 | 5878 | 5 | 4122 | 6 |
| 55 | 7 | 3366 |  | o689 | 5 | 2677 | 4 | 7323 | 5 |
| 56 | 7 | 9911 |  | 0445 | 5 | 9466 | 4 | 0534 | 4 |
| 57 | 8 | 6445 |  | 0201 | 6 | 6245 | 3 | 3755 | 3 |
| 58 | 9 | 2970 | 9991 | 9956 | 7 | 3014 | 2 | 6986 | 2 |
| 59 | 9 | 9484 |  | 9711 | 7 | 9773 | 2 | 0227 | 1 |
| 60 | 9280 | 5988 |  | 9466 | 8 | 6523 |  | 3477 | 0 |
|  |  |  | Sin | . 79 |  |  | Tan. | 79 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 11 |  | Tan. 11 |  |  |  | 107113477 |  | 60 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9280 | 5988 | 9991 | 9466 | 9288 | 6523 |  |  |  |
| 1 | 1 | 2483 |  | 9220 | 9 | 3263 | 0 | 6737 | 59 |
| 2 | 1 | 8967 |  | 8974 | 9 | 9993 | 0 | 0007 | 58 |
| 3 | 2 | 5441 |  | 8727 | 9290 | 6713 | 10709 | 3287 | 57 |
| 4 | 3 | 1905 |  | 8480 | 1 | 3424 | 8 | 6576 | 56 |
| 5 | 3 | 8359 |  | 8233 | 2 | 0126 | 7 | 9874 | 55 |
| 6 | 4 | 4803 |  | 7986 | 2 | 6817 | 7 | 3183 | 54 |
| 7 | 5 | 1237 |  | 7737 | 3 | 3500 | 6 | 6500 | 53 |
| 8 | 5 | 7661 |  | 7489 | 4 | 0172 | 5 | 9828 | 52 |
| 9 | 6 | 4076 |  | 7240 | 4 | 6836 | 5 | 3164 | 51 |
| 10 | 7 | 0480 |  | 6991 | 5 | 3489 | 4 | 6511 | 50 |
| 11 | 7 | 6875 |  | 6741 | 6 | 0134 | 3 | 9866 | 49 |
| 12 | 8 | 3260 |  | 6492 |  | 6769 | 3 | 3231 | 48 |
| 13 | 8 | 9636 |  | 6241 | 7 | 3395 | 2 | 6605 | 47 |
| 14 | 9 | 6001 |  | 5990 | 8 | 0011 | 1 | 9989 | 46 |
| 15 | 9290 | 2357 |  | 5739 | 8 | 6618 | 1 | 3382 | 45 |
| 16 | 0 | 8704 |  | 5488 | 9 | 3216 | 0 | 6784 | 44 |
| 17 | 1 | 5040 |  | 5236 | 9 | 9804 | 0 | 0196 | 43 |
| 18 | 2 | 1367 |  | 4984 | 9300 | 6383 | 10699 | 3617 | 42 |
| 19 | 2 | 7685 |  | 4731 | 1 | 2954 | 8 | 7046 | 41 |
| 20 | 3 | 3993 |  | 4478 |  | 9514 | 8 | 0486 | 40 |
| 21 | 4 | 0291 |  | 4225 | 2 | 6066 | 7 | 3934 | 39 |
| 22 | 4 | 6580 |  | 3971 | 3 | 2609 | 6 | 7391 | 38 |
| 23 | 5 | 2859 |  | 3717 | 3 | 9143 | 6 | 0857 | 37 |
| 24 | 5 | 9129 |  | 3462 | 4 | 5667 | 5 | 4333 | 36 |
| 25 | 6 | 5390 |  | 3207 | 5 | 2183 | 4 | 7817 | 35 |
| 26 | 7 | 1641 |  | 2952 | 5 | 8689 | 4 | 1311 | 34 |
| 27 |  | 7883 |  | 2696 |  | 5187 | 3 | 4813 | 33 |
| 28 | 8 | 4116 |  | 2440 |  | 1675 | 2 | 8325 | 32 |
| 29 | 9 | 0339 |  | 2184 |  | 8155 | 2 | 1845 | 31 |
| 30 | 9 | 6553 |  | 1927 | 8 | 4626 | 1 | 5374 | 30 |
|  |  |  | Sin. | . 78 |  |  | Tan. | 78 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 11 |  |  |  | Tan. 11 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9299 | 6553 | 9991 | 1927 | 9308 | 4626 | 10691 | 5374 | 30 |
| 31 | 9300 | 2758 |  | 1670 | 9 | 1088 | 0 | 8912 | 29 |
| 32 | 0 | 8953 |  | 1412 | 9 | 7541 | 0 | 2459 | 28 |
| 33 | 1 | 5140 |  | 1154 | 9310 | 3985 | 10689 | 6015 | 27 |
| 34 | 2 | 1317 |  | o896 |  | 0421 | 8 | 9579 | 26 |
| 35 | 2 | 7485 |  | 0637 |  | 6848 | 8 | 3152 | 25 |
| 36 | 3 | 3644 |  | 0378 | 2 | 3266 | 7 | 6734 | 24 |
| 37 | 3 | 9794 |  | 0119 | 2 | 9675 | 7 | 0325 | 23 |
| 38 |  | 5934 | 9990 | 9859 | 3 | 6076 | 6 | 3924 | 22 |
| 39 | 5 | 2066 |  | 9598 | 4 | 2468 | 5 | 7532 | 21 |
| 40 | 5 | 8189 |  | 9338 | 4 | 8851 | 5 | 1149 | 20 |
| 41 | 6 | 4303 |  | 9077 | 5 | 5226 | 4 | 4774 | 19 |
| 42 | 7 | 0407 |  | 8815 | 6 | 1592 | 3 | 8408 | 18 |
| 43 | 7 | 6503 |  | 8553 | 6 | 7950 | 3 | 2050 | 17 |
| 44 | 8 | 2590 |  | 8291 | 7 | 4299 | 2 | 5701 | 16 |
| 45 | 8 | 8668 |  | 8029 | 8 | 0640 | 1 | 9360 | 15 |
| 46 | 9 | 4737 |  | 7766 | 8 | 6972 | 1 | 3028 | 14 |
| 47 | 9310 | 0798 |  | 7502 | 9 | 3295 | O | 6705 | 13 |
| 48 | 0 | 6849 |  | 7239 | 9 | 9611 | 0 | 0389 | 12 |
| 49 | 1 | 2892 |  | 6974 | 9320 | 5918 | 10679 | 4082 | 11 |
| 50 | 1 | 8926 |  | 6710 | 1 | 2216 | 8 | 7784 | 10 |
| 51 | 2 | 4951 |  | 6445 |  | 8506 | 8 | 1494 | 9 |
| 52 | 3 | o968 |  | 6180 | 2 | 4788 |  | 5212 | 8 |
| 53 | 3 | 6976 |  | 5914 | 3 | 1061 | 6 | 8939 | 7 |
| 54 | 4 | 2975 |  | 5648 | 3 | 7327 | 6 | 2673 | 6 |
| 55 | 4 | 8965 |  | 5382 | 4 | 3584 | 5 | 6416 | 5 |
| 56 | 5 | 4947 |  | 5115 | 4 | 9832 | 5 | 0168 | 4 |
| 57 | 6 | 0921 |  | 4848 | 5 | 6073 | 4 | 3927 | 3 |
| 58 | 6 | 6885 |  | 4580 |  | 2305 | 3 | 7695 | 2 |
| 59 | 7 | 2841 |  | 4312 |  | 8529 | 3 | 1471 | 1 |
| 60 | 7 | 8789 |  | 4044 | 7 | 4745 | 2 | 5255 | 0 |
|  |  |  | Sin | . 78 |  |  | Tan. | 78 | M |


| M | Sin. 12 |  |  |  | Tan. 12 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9317 | 8789 | 9990 | 4044 | 9327 | 4745 | 10672 | 5255 | 60 |
| 1 | 8 | 4728 |  | 3775 | 8 | 0953 | 1 | 9047 | 59 |
| 2 | 9 | 0659 |  | 3506 | 8 | 7153 | 1 | 2847 | 58 |
| 3 | 9 | 6581 |  | 3237 | 9 | 3345 | 0 | 6655 | 57 |
| 4 | 9320 | 2495 |  | 2967 | 9 | 9528 | 0 | 0472 | 56 |
| 5 | 0 | 8400 |  | 2697 | 9330 | 5704 | 10669 | 4296 | 55 |
| 6 | 1 | 4297 |  | 2426 | 1 | 1872 | 8 | 8128 | 54 |
| 7 | 2 | 0186 |  | 2155 | 1 | 8031 | 8 | 1969 | 53 |
| 8 | 2 | 6066 |  | 1883 | 2 | 4183 | 7 | 5817 | 52 |
| 9 | 3 | 1938 |  | 1612 | 3 | 0327 | 6 | 9673 | 51 |
| 10 | 3 | 7802 |  | 1339 | 3 | 6463 | 6 | 3537 | 50 |
| 11 | 4 | 3657 |  | 1067 | 4 | 2591 | 5 | 7409 | 49 |
| 12 | 4 | 9505 |  | 0794 | 4 | 8711 | 5 | 1289 | 48 |
| 13 | 5 | 5344 |  | 0521 | 5 | 4823 | 4 | 5177 | 47 |
| 14 | 6 | 1174 |  | 0247 | 6 | 0927 | 3 | 9073 | 46 |
| 15 | 6 | 6997 | 9989 | 9973 | 6 | 7024 | 3 | 2976 | 45 |
| 16 | 7 | 2811 |  | 9698 | 7 | 3113 | 2 | 6887 | 44 |
| 17 | 7 | 8617 |  | 9423 | 7 | 9194 | 2 | 0806 | 43 |
| 18 | 8 | 4416 |  | 9148 | 8 | 5267 | 1 | 4733 | 42 |
| 19 | 9 | 0206 |  | 8873 | 9 | 1333 | 0 | 8667 | 41 |
| 20 | 9 | 5988 |  | 8597 | 9 | 7391 | 0 | 2609 | 40 |
| 21 | 9330 | 1761 |  | 8320 | 9340 | 3441 | 10659 | 6559 | 39 |
| 22 | 0 | 7527 |  | 8043 | 0 | 9484 | 9 | 0516 | 38 |
| 23 | 1 | 3285 |  | 7766 | 1 | 5519 | 8 | 4481 | 37 |
| 24 | 1 | 9035 |  | 7489 | 2 | 1546 | 7 | 8454 | 36 |
| 25 | 2 | 4777 |  | 7211 | 2 | 7566 | 7 | 2434 | 35 |
| 26 | 3 | 0511 |  | 6932 | 3 | 3578 | 6 | 6422 | 34 |
| 27 | 3 | 6237 |  | 6654 | 3 | 9583 |  | 0417 | 33 |
| 28 | 4 | 1955 |  | 6374 | 4 | 5580 | 5 | 4420 | 32 |
| 29 | 4 | 7665 |  | 6095 | 5 | 1570 | 4 | 8430 | 31 |
| 30 | 5 | 3368 |  | 5815 |  | 7552 |  | 2448 | 30 |
|  |  |  | Sin. | . 77 |  |  | Tan. | 77 | M |

Gunter's table (reconstruction, D. Roegel, 2010)


Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 13 |  |  |  | Tan. 13 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9352 | 0880 | 9988 | 7239 | 9363 | 3641 | 10636 | 6359 | 60 |
| 1 | 2 | 6349 |  | 6947 | 3 | 9401 | 6 | 0599 | 59 |
| 2 | 3 | 1810 |  | 6655 | 4 | 5155 | 5 | 4845 | 58 |
| 3 | 3 | 7264 |  | 6363 | 5 | 0901 | 4 | 9099 | 57 |
| 4 | 4 | 2710 |  | 6070 | 5 | 6641 | 4 | 3359 | 56 |
| 5 | 4 | 8150 |  | 5776 | 6 | 2374 | 3 | 7626 | 55 |
| 6 | 5 | 3582 |  | 5482 | 6 | 8100 | 3 | 1900 | 54 |
| 7 | 5 | 9007 |  | 5188 | 7 | 3819 | 2 | 6181 | 53 |
| 8 | 6 | 4426 |  | 4894 | 7 | 9532 | 2 | 0468 | 52 |
| 9 | 6 | 9836 |  | 4599 | 8 | 5238 | 1 | 4762 | 51 |
| 10 | 7 | 5240 |  | 4303 | 9 | 0937 | 0 | 9063 | 50 |
| 11 | 8 | 0637 |  | 4008 | 9 | 6629 | 0 | 3371 | 49 |
| 12 | 8 | 6027 |  | 3712 | 9370 | 2315 | 10629 | 7685 | 48 |
| 13 | 9 | 1409 |  | 3415 | 0 | 7994 | 9 | 2006 | 47 |
| 14 | 9 | 6785 |  | 3118 | 1 | 3667 | 8 | 6333 | 46 |
| 15 | 9360 | 2154 |  | 2821 | 1 | 9333 | 8 | 0667 | 45 |
| 16 | 0 | 7515 |  | 2523 | 2 | 4992 | 7 | 5008 | 44 |
| 17 | 1 | 2870 |  | 2225 | - | 0645 | 6 | 9355 | 43 |
| 18 | 1 | 8217 |  | 1927 | 3 | 6291 | 6 | 3709 | 42 |
| 19 | 2 | 3558 |  | 1628 | 4 | 1930 | 5 | 8070 | 41 |
| 20 | 2 | 8892 |  | 1329 | 4 | 7563 | 5 | 2437 | 40 |
| 21 | 3 | 4219 |  | 1029 |  | 3190 | 4 | 6810 | 39 |
| 22 | 3 | 9539 |  | 0729 | 5 | 8810 | 4 | 1190 | 38 |
| 23 | 4 | 4852 |  | 0429 | 6 | 4423 | 3 | 5577 | 37 |
| 24 | 5 | 0158 |  | 0128 | 7 | 0030 | 2 | 9970 | 36 |
| 25 | 5 | 5458 | 9987 | 9827 |  | 5631 | 2 | 4369 | 35 |
| 26 | 6 | 0750 |  | 9525 | 8 | 1225 | 1 | 8775 | 34 |
| 27 | 6 | 6036 |  | 9223 |  | 6813 | 1 | 3187 | 33 |
| 28 | 7 | 1315 |  | 8921 |  | 2394 | 0 | 7606 | 32 |
| 29 | 7 | 6587 |  | 8618 |  | 7969 | 0 | 2031 | $3^{1}$ |
| 30 | 8 | 1853 |  | 8315 | 9380 | 3537 | 10619 | 6463 | 30 |
|  |  |  | Sin. | . 76 |  |  | Tan. | 76 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 13 |  |  |  | Tan. 13 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9368 | 1853 | 9987 | 8315 | 9380 | 3537 | 10619 | 6463 | 30 |
| 31 | 8 | 7111 |  | 8012 | 0 | 9100 | 9 | 0900 | 29 |
| 32 | 9 | 2363 |  | 7708 | 1 | 4655 | 8 | 5345 | 28 |
| 33 | 9 | 7608 |  | 7404 | 2 | 0205 | 7 | 9795 | 27 |
| 34 | 9370 | 2847 |  | 7099 | 2 | 5748 |  | 4252 | 26 |
| 35 | 0 | 8079 |  | 6794 | 3 | 1285 | 6 | 8715 | 25 |
| 36 | 1 | 3304 |  | 6488 | 3 | 6816 | 6 | 3184 | 24 |
| 37 | 1 | 8523 |  | 6183 | 4 | 2340 | 5 | 7660 | 23 |
| 38 | 2 | 3735 |  | 5876 | 4 | 7858 | 5 | 2142 | 22 |
| 39 | 2 | 8940 |  | 5570 | 5 | 3370 | 4 | 6630 | 21 |
| 40 | 3 | 4139 |  | 5263 | 5 | 8876 | 4 | 1124 | 20 |
| 41 | 3 | 9331 |  | 4955 | 6 | 4376 | 3 | 5624 | 19 |
| 42 | 4 | 4517 |  | 4648 | 6 | 9869 | 3 | 0131 | 18 |
| 43 | 4 | 9696 |  | 4339 | 7 | 5356 |  | 4644 | 17 |
| 44 | 5 | 4868 |  | 4031 | 8 | 0837 | 1 | 9163 | 16 |
| 45 | 6 | 0034 |  | 3722 | 8 | 6312 | 1 | 3688 | 15 |
| 46 | 6 | 5194 |  | 3413 | 9 | 1781 |  | 8219 | 14 |
| 47 | 7 | 0347 |  | 3103 | 9 | 7244 | 0 | 2756 | 13 |
| 48 | 7 | 5493 |  | 2793 | 9390 | 2700 | 10609 | 7300 | 12 |
| 49 | 8 | o633 |  | 2482 | 0 | 8151 | 9 | 1849 | 11 |
| 50 | 8 | 5767 |  | 2171 | 1 | 3595 | 8 | 6405 | 10 |
| 51 | 9 | 0894 |  | 1860 | 1 | 9034 | 8 | og66 | 9 |
| 52 | 9 | 6015 |  | 1549 | 2 | 4466 | 7 | 5534 | 8 |
| 53 | 9380 | 1129 |  | 1236 | 2 | 9893 |  | 0107 | 7 |
| 54 | 0 | 6237 |  | 0924 | 3 | 5313 | 6 | 4687 | 6 |
| 55 | 1 | 1339 |  | 0611 | 4 | 0727 | 5 | 9273 | 5 |
| 56 | 1 | 6434 |  | 0298 | , | 6136 |  | 3864 | 4 |
| 57 | 2 | 1523 | 9986 | 9984 | 5 | 1538 |  | 8462 | 3 |
| 58 | 2 | 6605 |  | 9670 | 5 | 6935 |  | 3065 | 2 |
| 59 | 3 | 1682 |  | 9356 |  | 2326 |  | 7674 | 1 |
| 60 | 3 | 6752 |  | 9041 | 6 | 7711 |  | 2289 | 0 |
|  |  |  | Sin | . 76 |  |  | Tan. | 76 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 14 |  |  |  | Tan. 14 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9383 | 6752 | 9986 | 9041 | 9396 | 7711 | 10603 | 2289 | 60 |
| 1 | 4 | 1815 |  | 8726 | 7 | 3089 | 2 | 6911 | 59 |
| 2 | 4 | 6873 |  | 8410 | 7 | 8463 | 2 | 1537 | 58 |
| 3 | 5 | 1924 |  | 8094 | 8 | 3830 | 1 | 6170 | 57 |
| 4 | 5 | 6969 |  | 7778 | 8 | 9191 | 1 | 0809 | 56 |
| 5 | 6 | 2008 |  | 7461 | 9 | 4547 | 0 | 5453 | 55 |
| 6 | 6 | 7040 |  | 7144 | 9 | 9896 | 0 | 0104 | 54 |
| 7 | 7 | 2067 |  | 6827 | 9400 | 5240 | 10599 | 4760 | 53 |
| 8 | 7 | 7087 |  | 6509 |  | 0578 | 8 | 9422 | 52 |
| 9 | 8 | 2101 |  | 6191 | 1 | 5910 | 8 | 4090 | 51 |
| 10 | 8 | 7109 |  | 5872 | 2 | 1237 | 7 | 8763 | 50 |
| 11 | 9 | 2111 |  | 5553 | 2 | 6558 | 7 | 3442 | 49 |
| 12 | 9 | 7106 |  | 5233 | 3 | 1873 | 6 | 8127 | 48 |
| 13 | 9390 | 2096 |  | 4913 | 3 | 7182 | 6 | 2818 | 47 |
| 14 |  | 7079 |  | 4593 |  | 2486 | 5 | 7514 | 46 |
| 15 | 1 | 2057 |  | 4273 | 4 | 7784 | 5 | 2216 | 45 |
| 16 | 1 | 7028 |  | 3952 | 5 | 3076 | 4 | 6924 | 44 |
| 17 | 2 | 1993 |  | 3630 | 5 | 8363 | 4 | 1637 | 43 |
| 18 | 2 | 6952 |  | 3308 |  | 3644 | 3 | 6356 | 42 |
| 19 | 3 | 1905 |  | 2986 | 6 | 8919 | 3 | 1081 | 41 |
| 20 | 3 | 6852 |  | 2663 | 7 | 4189 | 2 | 5811 | 40 |
| 21 |  | 1794 |  | 2340 | 7 | 9453 | 2 | 0547 | 39 |
| 22 | 4 | 6729 |  | 2017 | 8 | 4712 | 1 | 5288 | 38 |
| 23 | 5 | 1658 |  | 1693 | 8 | 9965 | 1 | 0035 | 37 |
| 24 | 5 | 6581 |  | 1369 | 9 | 5212 | 0 | 4788 | 36 |
| 25 | 6 | 1499 |  | 1045 | 9410 | 0454 | 10589 | 9546 | 35 |
| 26 | 6 | 6410 |  | 0720 |  | 5690 |  | 4310 | 34 |
| 27 | 7 | 1315 |  | 0394 |  | 0921 | 8 | 9079 | 33 |
| 28 | 7 | 6215 |  | 0069 | 1 | 6146 | 8 | 3854 | 32 |
| 29 | 8 | 1109 | 9985 | 9742 | 2 | 1366 | 7 | 8634 | 31 |
| 30 | 8 | 5996 |  | 9416 | 2 | 6581 |  | 3419 | 30 |
|  |  |  | Sin. | . 75 |  |  | Tan. | 75 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 14 |  |  |  | Tan. 14 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9398 | 5996 | 9985 | 9416 | 9412 | 6581 | 10587 | 3419 | 30 |
| 31 | 9 | 0878 |  | 9089 | 3 | 1789 | 6 | 8211 | 29 |
| 32 | 9 | 5754 |  | 8762 | 3 | 6993 | 6 | 3007 | 28 |
| 33 | 9400 | 0625 |  | 8434 | 4 | 2191 | 5 | 7809 | 27 |
| 34 | 0 | 5489 |  | 8106 | 4 | 7383 | 5 | 2617 | 26 |
| 35 | 1 | 0348 |  | 7777 | 5 | 2570 | 4 | 7430 | 25 |
| 36 |  | 5201 |  | 7449 | 5 | 7752 | 4 | 2248 | 24 |
| 37 | 2 | 0048 |  | 7119 | 6 | 2928 | 3 | 7072 | 23 |
| 38 | 2 | 4889 |  | 6790 | 6 | 8099 | 3 | 1901 | 22 |
| 39 | 2 | 9724 |  | 6460 | 7 | 3265 | 2 | 6735 | 21 |
| 40 | 3 | 4554 |  | 6129 | 7 | 8425 | 2 | 1575 | 20 |
| 41 | 3 | 9378 |  | 5798 | 8 | 3580 | 1 | 6420 | 19 |
| 42 | 4 | 4196 |  | 5467 | 8 | 8729 | 1 | 1271 | 18 |
| 43 | 4 | 9009 |  | 5135 | 9 | 3874 | 0 | 6126 | 17 |
| 44 | 5 | 3816 |  | 4803 | 9 | 9013 | 0 | 0987 | 16 |
| 45 | 5 | 8617 |  | 4471 | 9420 | 4146 | 10579 | 5854 | 15 |
| 46 | 6 | 3413 |  | 4138 | 0 | 9275 | 9 | 0725 | 14 |
| 47 | 6 | 8203 |  | 3805 | 1 | 4398 | 8 | 5602 | 13 |
| 48 | 7 | 2987 |  | 3471 | 1 | 9515 | 8 | 0485 | 12 |
| 49 | 7 | 7766 |  | 3138 | 2 | 4628 | 7 | 5372 | 11 |
| 50 | 8 | 2539 |  | 2803 | 2 | 9735 | 7 | 0265 | 10 |
| 51 | 8 | 7306 |  | 2468 | 3 | 4838 | 6 | 5162 | 9 |
| 52 | 9 | 2068 |  | 2133 | 3 | 9935 | 6 | 0065 | 8 |
| 53 | 9 | 6824 |  | 1798 | 4 | 5026 | 5 | 4974 | 7 |
| 54 | 9410 | 1575 |  | 1462 | 5 | 0113 | 4 | 9887 | 6 |
| 55 | 0 | 6320 |  | 1125 | 5 | 5194 | 4 | 4806 | 5 |
| 56 | 1 | 1059 |  | 0789 | 6 | 0271 | 3 | 9729 | 4 |
| 57 | 1 | 5793 |  | 0452 | 6 | 5342 | 3 | 4658 | 3 |
| 58 | 2 | 0522 |  | 0114 | 7 | 0408 | 2 | 9592 | 2 |
| 59 | 2 | 5245 | 9984 | 9776 | 7 | 5469 | 2 | 4531 | 1 |
| 60 | 2 | 9962 |  | 9438 | 8 | 0525 | 1 | 9475 | 0 |
|  |  |  | Sin | 75 |  |  | Tan. | 75 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 15 |  |  |  | Tan. 15 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9412 | 9962 | 9984 | 9438 | 9428 | 0525 | 10571 | 9475 | 60 |
| 1 | 3 | 4674 |  | 9099 | 8 | 5575 | 1 | 4425 | 59 |
| 2 | 3 | 9381 |  | 8760 | 9 | 0621 | 0 | 9379 | 58 |
| 3 | 4 | 4082 |  | 8420 | 9 | 5661 | 0 | 4339 | 57 |
| 4 | 4 | 8778 |  | 8081 | 9430 | 0697 | 10569 | 9303 | 56 |
| 5 | 5 | 3468 |  | 7740 | 0 | 5727 | 9 | 4273 | 55 |
| 6 | 5 | 8152 |  | 7400 | 1 | 0753 | 8 | 9247 | 54 |
| 7 | 6 | 2832 |  | 7059 | 1 | 5773 | 8 | 4227 | 53 |
| 8 | 6 | 7506 |  | 6717 | 2 | 0789 | 7 | 9211 | 52 |
| 9 | 7 | 2174 |  | 6375 | 2 | 5799 | 7 | 4201 | 51 |
| 10 | 7 | 6837 |  | 6033 | 3 | 0804 | 6 | 9196 | 50 |
| 11 | 8 | 1495 |  | 5690 | 3 | 5805 | 6 | 4195 | 49 |
| 12 | 8 | 6148 |  | 5347 | 4 | 0800 | 5 | 9200 | 48 |
| 13 | 9 | 0795 |  | 5004 | 4 | 5791 | 5 | 4209 | 47 |
| 14 | 9 | 5436 |  | 4660 | 5 | 0776 | 4 | 9224 | 46 |
| 15 | 9420 | 0073 |  | 4316 | 5 | 5757 | 4 | 4243 | 45 |
| 16 | 0 | 4704 |  | 3971 | 6 | 0733 | 3 | 9267 | 44 |
| 17 | 0 | 9330 |  | 3626 | 6 | 5704 | 3 | 4296 | 43 |
| 18 | 1 | 3950 |  | 3281 | 7 | 0670 | 2 | 9330 | 42 |
| 19 | 1 | 8566 |  | 2935 | 7 | 5631 | 2 | 4369 | 41 |
| 20 | 2 | 3176 |  | 2589 | 8 | 0587 | 1 | 9413 | 40 |
| 21 | 2 | 7780 |  | 2242 | 8 | 5538 | 1 | 4462 | 39 |
| 22 | 3 | 2380 |  | 1895 | 9 | 0485 | 0 | 9515 | 38 |
| 23 | 3 | 6974 |  | 1548 | 9 | 5426 | 0 | 4574 | 37 |
| 24 | 4 | 1563 |  | 1200 | 9440 | 0363 | 10559 | 9637 | 36 |
| 25 | 4 | 6147 |  | 0852 | 0 | 5295 | 9 | 4705 | 35 |
| 26 | 5 | 0726 |  | 0503 | 1 | 0222 | 8 | 9778 | 34 |
| 27 | 5 | 5299 |  | 0154 | 1 | 5145 | 8 | 4855 | 33 |
| 28 | 5 | 9867 | 9983 | 9805 | 2 | 0062 | 7 | 9938 | 32 |
| 29 | 6 | 4430 |  | 9455 | 2 | 4975 | 7 | 5025 | $3^{1}$ |
| 30 | 6 | 8988 |  | 9105 | 2 | 9883 |  | 0117 | 30 |
|  |  |  | Sin. | . 74 |  |  | Tan. | 74 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 15 |  |  |  | Tan. 15 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9426 | 8988 | 9983 | 9105 | 9442 | 9883 | 10557 | 0117 | 30 |
| 31 | 7 | 3541 |  | 8755 | 3 | 4786 | 6 | 5214 | 29 |
| 32 | 7 | 8089 |  | 8404 | 3 | 9685 | 6 | 0315 | 28 |
| 33 | 8 | 2631 |  | 8052 | 4 | 4579 | 5 | 5421 | 27 |
| 34 | 8 | 7169 |  | 7701 | 4 | 9468 | 5 | 0532 | 26 |
| 35 | 9 | 1701 |  | 7348 | 5 | 4352 | 4 | 5648 | 25 |
| 36 | 9 | 6228 |  | 6996 | 5 | 9232 | 4 | 0768 | 24 |
| 37 | 9430 | 0750 |  | 6643 | 6 | 4107 | 3 | 5893 | 23 |
| 38 | 0 | 5267 |  | 6290 | 6 | 8978 | 3 | 1022 | 22 |
| 39 | 0 | 9779 |  | 5936 | 7 | 3843 | 2 | 6157 | 21 |
| 40 | 1 | 4286 |  | 5582 | 7 | 8704 | 2 | 1296 | 20 |
| 41 | 1 | 8788 |  | 5227 | 8 | 3561 | 1 | 6439 | 19 |
| 42 | 2 | 3285 |  | 4872 | 8 | 8413 | 1 | 1587 | 18 |
| 43 | 2 | 7777 |  | 4517 | 9 | 3260 | 0 | 6740 | 17 |
| 44 | 3 | 2264 |  | 4161 | 9 | 8102 | 0 | 1898 | 16 |
| 45 | 3 | 6746 |  | 3805 | 9450 | 2940 | 10549 | 7060 | 15 |
| 46 | 4 | 1223 |  | 3449 | 0 | 7774 | 9 | 2226 | 14 |
| 47 | 4 | 5694 |  | 3092 | 1 | 2602 | 8 | 7398 | 13 |
| 48 | 5 | 0161 |  | 2735 | 1 | 7427 | 8 | 2573 | 12 |
| 49 | 5 | 4623 |  | 2377 | 2 | 2246 | 7 | 7754 | 11 |
| 50 | 5 | 9080 |  | 2019 | 2 | 7061 | 7 | 2939 | 10 |
| 51 | 6 | 3532 |  | 1661 | 3 | 1872 | 6 | 8128 | 9 |
| 52 | 6 | 7980 |  | 1302 | 3 | 6678 | 6 | 3322 | 8 |
| 53 | 7 | 2422 |  | 0942 | 4 | 1479 | 5 | 8521 | 7 |
| 54 | 7 | 6859 |  | 0583 | 4 | 6276 | 5 | 3724 | 6 |
| 55 | 8 | 1292 |  | 0223 | 5 | 1069 | 4 | 8931 | 5 |
| 56 | 8 | 5719 | 9982 | 9862 | 5 | 5857 | 4 | 4143 | 4 |
| 57 | 9 | 0142 |  | 9501 | 6 | 0641 | 3 | 9359 | 3 |
| 58 | 9 | 4560 |  | 9140 | 6 | 5420 | 3 | 4580 | 2 |
| 59 | 9 | 8973 |  | 8778 | 7 | 0194 | 2 | 9806 | 1 |
| 60 | 9440 | 3381 |  | 8416 | 7 | 4964 | 2 | 5036 | 0 |
|  |  |  | Sin | 74 |  |  | Tan. | 74 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 16 |  |  |  | Tan. 16 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9440 | 3381 | 9982 | 8416 | 9457 | 4964 | 10542 | 5036 | 60 |
| 1 | 0 | 7784 |  | 8054 | 7 | 9730 | 2 | 0270 | 59 |
| 2 | 1 | 2182 |  | 7691 | 8 | 4491 | 1 | 5509 | 58 |
| 3 | 1 | 6576 |  | 7328 | 8 | 9248 | 1 | 0752 | 57 |
| 4 | 2 | o965 |  | 6964 | 9 | 4001 | 0 | 5999 | 56 |
| 5 | 2 | 5349 |  | 6600 | 9 | 8749 | 0 | 1251 | 55 |
| 6 | 2 | 9728 |  | 6236 | 9460 | 3492 | 10539 | 6508 | 54 |
| 7 | 3 | 4103 |  | 5871 | 0 | 8232 | 9 | 1768 | 53 |
| 8 | 3 | 8472 |  | 5506 | 1 | 2967 | 8 | 7033 | 52 |
| 9 | 4 | 2837 |  | 5140 | 1 | 7697 | 8 | 2303 | 51 |
| 10 | 4 | 7197 |  | 4774 | 2 | 2423 | 7 | 7577 | 50 |
| 11 | 5 | 1553 |  | 4408 | 2 | 7145 | 7 | 2855 | 49 |
| 12 | 5 | 5904 |  | 4041 | 3 | 1863 | 6 | 8137 | 48 |
| 13 | 6 | 0250 |  | 3674 | 3 | 6576 | 6 | 3424 | 47 |
| 14 | 6 | 4591 |  | 3306 | 4 | 1285 | 5 | 8715 | 46 |
| 15 | 6 | 8927 |  | 2938 | 4 | 5990 | 5 | 4010 | 45 |
| 16 | 7 | 3259 |  | 2569 | 5 | o690 | 4 | 9310 | 44 |
| 17 | 7 | 7586 |  | 2201 | 5 | 5386 | 4 | 4614 | 43 |
| 18 | 8 | 1909 |  | 1831 | 6 | 0078 | 3 | 9922 | 42 |
| 19 | 8 | 6227 |  | 1462 |  | 4765 | 3 | 5235 | 41 |
| 20 | 9 | 0540 |  | 1092 | 6 | 9448 | 3 | 0552 | 40 |
| 21 | 9 | 4849 |  | 0721 | 7 | 4127 | 2 | 5873 | 39 |
| 22 | 9 | 9153 |  | 0351 | 7 | 8802 | 2 | 1198 | 38 |
| 23 | 9450 | 3452 | 9981 | 9979 | 8 | 3473 | 1 | 6527 | 37 |
| 24 | 0 | 7747 |  | 9608 | 8 | 8139 | 1 | 1861 | 36 |
| 25 | 1 | 2037 |  | 9236 | 9 | 2801 | 0 | 7199 | 35 |
| 26 | 1 | 6322 |  | 8863 | 9 | 7459 | 0 | 2541 | 34 |
| 27 | 2 | 0603 |  | 8490 | 9470 | 2112 | 10529 | 7888 | 33 |
| 28 | 2 | 4879 |  | 8117 | 0 | 6762 | 9 | 3238 | 32 |
| 29 | 2 | 9151 |  | 7744 | 1 | 1407 | 8 | 8593 | 31 |
| 30 | 3 | 3418 |  | 7370 | 1 | 6048 | 8 | 3952 | 30 |
|  |  |  | Sin. | . 73 |  |  | Tan. | 73 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 16 |  |  | Tan. 16 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 94533418 | 9981 | 7370 | 9471 | 6048 | 10528 | 3952 | 30 |
| 31 | 37681 |  | 6995 | 2 | 0685 | 7 | 9315 | 29 |
| 32 | 41939 |  | 6620 | 2 | 5318 | 7 | 4682 | 28 |
| 33 | 46192 |  | 6245 | 2 | 9947 | 7 | 0053 | 27 |
| 34 | 50441 |  | 5870 | 3 | 4572 | 6 | 5428 | 26 |
| 35 | 54686 |  | 5494 | 3 | 9192 | 6 | 0808 | 25 |
| 36 | 58926 |  | 5117 | 4 | 3808 | 5 | 6192 | 24 |
| 37 | 63161 |  | 4740 | 4 | 8421 | 5 | 1579 | 23 |
| 38 | 67392 |  | 4363 | 5 | 3029 | 4 | 6971 | 22 |
| 39 | 71618 |  | 3986 | 5 | 7633 | 4 | 2367 | 21 |
| 40 | 75840 |  | 3608 | 6 | 2233 | 3 | 7767 | 20 |
| 41 | 80058 |  | 3229 | 6 | 6829 | 3 | 3171 | 19 |
| 42 | 84271 |  | 2850 | 7 | 1421 | 2 | 8579 | 18 |
| 43 | 88480 |  | 2471 | 7 | 6009 | 2 | 3991 | 17 |
| 44 | 92684 |  | 2091 | 8 | 0592 | 1 | 9408 | 16 |
| 45 | 96884 |  | 1711 | 8 | 5172 | 1 | 4828 | 15 |
| 46 | 9460 1079 |  | 1331 | 8 | 9748 | 1 | 0252 | 14 |
| 47 | - 5270 |  | 0950 | 9 | 4319 | 0 | 5681 | 13 |
| 48 | - 9456 |  | 0569 | 9 | 8887 | 0 | 1113 | 12 |
| 49 | 13638 |  | 0187 | 9480 | 3451 | 10519 | 6549 | 11 |
| 50 | 17816 | 9980 | 9805 | 0 | 8011 | 9 | 1989 | 10 |
| 51 | 21989 |  | 9423 | 1 | 2566 | 8 | 7434 | 9 |
| 52 | 26158 |  | 9040 | 1 | 7118 | 8 | 2882 | 8 |
| 53 | 30323 |  | 8657 | 2 | 1666 | 7 | 8334 | 7 |
| 54 | 34483 |  | 8273 | 2 | 6210 | 7 | 3790 | 6 |
| 55 | 38639 |  | 7889 | 3 | 0750 | 6 | 9250 | 5 |
| 56 | 42790 |  | 7505 | 3 | 5286 | 6 | 4714 | 4 |
| 57 | 46938 |  | 7120 | 3 | 9818 | 6 | 0182 | 3 |
| 58 | 51081 |  | 6735 | 4 | 4346 | 5 | 5654 | 2 |
| 59 | 55219 |  | 6349 | 4 | 8870 | 5 | 1130 | 1 |
| 60 | 59353 |  | 5963 | 5 | 3390 | 4 | 6610 | 0 |
|  |  | Sin | 73 |  |  | Tan. | 73 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 17 |  |  |  | Tan. 17 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9465 | 9353 | 9980 | 5963 | 9485 | 3390 | 10514 | 6610 | 60 |
| 1 | 6 | 3483 |  | 5577 | 5 | 7907 | 4 | 2093 | 59 |
| 2 | 6 | 7609 |  | 5190 | 6 | 2419 | 3 | 7581 | 58 |
| 3 | 7 | 1730 |  | 4803 | 6 | 6928 | 3 | 3072 | 57 |
| 4 | 7 | 5848 |  | 4415 | 7 | 1433 | 2 | 8567 | 56 |
| 5 | 7 | 9960 |  | 4027 | 7 | 5933 | 2 | 4067 | 55 |
| 6 | 8 | 4069 |  | 3639 | 8 | 0430 | 1 | 9570 | 54 |
| 7 | 8 | 8173 |  | 3250 | 8 | 4924 | 1 | 5076 | 53 |
| 8 | 9 | 2273 |  | 2860 | 8 | 9413 |  | 0587 | 52 |
| 9 | 9 | 6369 |  | 2471 | 9 | 3898 | - | 6102 | 51 |
| 10 | 9470 | 0461 |  | 2081 | 9 | 8380 | 0 | 1620 | 50 |
| 11 | 0 | 4548 |  | 1690 | 9490 | 2858 | 10509 | 7142 | 49 |
| 12 | 0 | 8631 |  | 1299 | 0 | 7332 | 9 | 2668 | 48 |
| 13 | 1 | 2710 |  | 0908 | 1 | 1802 | 8 | 8198 | 47 |
| 14 | 1 | 6785 |  | 0516 | 1 | 6269 | 8 | 3731 | 46 |
| 15 | 2 | 0856 |  | 0124 | 2 | 0731 | 7 | 9269 | 45 |
| 16 | 2 | 4922 | 9979 | 9732 | 2 | 5190 | 7 | 4810 | 44 |
| 17 | 2 | 8985 |  | 9339 | 2 | 9646 | 7 | 0354 | 43 |
| 18 | 3 | 3043 |  | 8946 | 3 | 4097 | 6 | 5903 | 42 |
| 19 | 3 | 7097 |  | 8552 | 3 | 8545 | 6 | 1455 | 41 |
| 20 | 4 | 1146 |  | 8158 | 4 | 2988 | 5 | 7012 | 40 |
| 21 | 4 | 5192 |  | 7764 | 4 | 7429 | 5 | 2571 | 39 |
| 22 | 4 | 9234 |  | 7369 | 5 | 1865 | 4 | 8135 | 38 |
| 23 | 5 | 3271 |  | 6973 |  | 6298 | 4 | 3702 | 37 |
| 24 | 5 | 7304 |  | 6578 | 6 | 0727 | 3 | 9273 | 36 |
| 25 | 6 | 1334 |  | 6182 | 6 | 5152 | 3 | 4848 | 35 |
| 26 | 6 | 5359 |  | 5785 | 6 | 9574 | 3 | 0426 | 34 |
| 27 | 6 | 9380 |  | 5388 | 7 | 3991 | 2 | 6009 | 33 |
| 28 | 7 | 3396 |  | 4991 | 7 | 8406 | 2 | 1594 | 32 |
| 29 | 7 | 7409 |  | 4593 | 8 | 2816 | 1 | 7184 | $3^{1}$ |
| 30 | 8 | 1418 |  | 4195 | 8 | 7223 |  | 2777 | 30 |
|  |  |  | Sin. | 72 |  |  | Tan. | 72 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 17 |  |  |  | Tan. 17 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9478 | 1418 | 9979 | 4195 | 9498 | 7223 | 10501 | 2777 | 30 |
| 31 |  | 5423 |  | 3796 | 9 | 1626 | 0 | 8374 | 29 |
| 32 | 8 | 9423 |  | 3398 | 9 | 6026 | 0 | 3974 | 28 |
| 33 | 9 | 3420 |  | 2998 | 9500 | 0422 | 10499 | 9578 | 27 |
| 34 | 9 | 7412 |  | 2599 | 0 | 4814 | 9 | 5186 | 26 |
| 35 | 9480 | 1401 |  | 2198 | 0 | 9203 | 9 | 0797 | 25 |
| 36 | 0 | 5385 |  | 1798 | 1 | 3588 | 8 | 6412 | 24 |
| 37 | O | 9366 |  | 1397 | 1 | 7969 | 8 | 2031 | 23 |
| 38 | 1 | 3342 |  | 0996 | 2 | 2347 | 7 | 7653 | 22 |
| 39 | 1 | 7315 |  | 0594 | 2 | 6721 | 7 | 3279 | 21 |
| 40 | 2 | 1283 |  | 0192 | 3 | 1092 | 6 | 8908 | 20 |
| 41 | 2 | 5248 | 9978 | 9789 | 3 | 5459 | 6 | 4541 | 19 |
| 42 | 2 | 9208 |  | 9386 | 3 | 9822 | 6 | 0178 | 18 |
| 43 | 3 | 3165 |  | 8983 | 4 | 4182 | 5 | 5818 | 17 |
| 44 | 3 | 7117 |  | 8579 | 4 | 8538 | 5 | 1462 | 16 |
| 45 | 4 | 1066 |  | 8175 | 5 | 2891 | 4 | 7109 | 15 |
| 46 | 4 | 5010 |  | 7770 | 5 | 7240 | 4 | 2760 | 14 |
| 47 | 4 | 8951 |  | 7365 | 6 | 1586 | 3 | 8414 | 13 |
| 48 | 5 | 2888 |  | 6960 | 6 | 5928 | 3 | 4072 | 12 |
| 49 | 5 | 6820 |  | 6554 | 7 | 0267 | 2 | 9733 | 11 |
| 50 | 6 | 0749 |  | 6148 | 7 | 4602 | 2 | 5398 | 10 |
| 51 | 6 | 4674 |  | 5741 | 7 | 8933 | 2 | 1067 | 9 |
| 52 | 6 | 8595 |  | 5334 | 8 | 3261 | 1 | 6739 | 8 |
| 53 | 7 | 2512 |  | 4927 | 8 | 7586 | 1 | 2414 | 7 |
| 54 | 7 | 6426 |  | 4519 | 9 | 1907 | 0 | 8093 | 6 |
| 55 | 8 | 0335 |  | 4111 | 9 | 6224 | - | 3776 | 5 |
| 56 | 8 | 4240 |  | 3702 | 9510 | 0539 | 10489 | 9461 | 4 |
| 57 | 8 | 8142 |  | 3293 | 0 | 4849 | 9 | 5151 | 3 |
| 58 | 9 | 2040 |  | 2883 | 0 | 9156 |  | 0844 | 2 |
| 59 | 9 | 5934 |  | 2474 | 1 | 3460 |  | 6540 | 1 |
| 60 | 9 | 9824 |  | 2063 |  | 7760 | 8 | 2240 | 0 |
|  |  |  | Sin. | . 72 |  |  | Tan. | 72 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 18 |  |  |  | Tan. 18 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9489 | 9824 | 9978 | 2063 | 9511 | 7760 | 10488 | 2240 | 60 |
| 1 | 9490 | 3710 |  | 1653 | 2 | 2057 | 7 | 7943 | 59 |
| 2 | 0 | 7592 |  | 1241 | 2 | 6351 | 7 | 3649 | 58 |
| 3 | 1 | 1471 |  | 0830 | 3 | 0641 | 6 | 9359 | 57 |
| 4 | 1 | 5345 |  | 0418 | 3 | 4927 | 6 | 5073 | 56 |
| 5 | 1 | 9216 |  | 0006 | 3 | 9210 | 6 | 0790 | 55 |
| 6 | 2 | 3083 | 9977 | 9593 | 4 | 3490 | 5 | 6510 | 54 |
| 7 | 2 | 6946 |  | 9180 | 4 | 7766 | 5 | 2234 | 53 |
| 8 | 3 | o806 |  | 8766 | 5 | 2039 | 4 | 7961 | 52 |
| 9 | 3 | 4661 |  | 8353 |  | 6309 | 4 | 3691 | 51 |
| 10 | 3 | 8513 |  | 7938 | 6 | 0575 | 3 | 9425 | 50 |
| 11 | 4 | 2361 |  | 7523 | 6 | 4838 | 3 | 5162 | 49 |
| 12 | 4 | 6205 |  | 7108 | 6 | 9097 | 3 | 0903 | 48 |
| 13 | 5 | 0046 |  | 6693 | 7 | 3353 | 2 | 6647 | 47 |
| 14 | 5 | 3883 |  | 6277 | 7 | 7606 | 2 | 2394 | 46 |
| 15 | 5 | 7716 |  | 5860 | 8 | 1855 | 1 | 8145 | 45 |
| 16 | 6 | 1545 |  | 5444 | 8 | 6101 | 1 | 3899 | 44 |
| 17 | 6 | 5370 |  | 5026 | 9 | 0344 | 0 | 9656 | 43 |
| 18 | 6 | 9192 |  | 4609 | 9 | 4583 | 0 | 5417 | 42 |
| 19 | 7 | 3010 |  | 4191 | 9 | 8819 | 0 | 1181 | 41 |
| 20 | 7 | 6824 |  | 3772 | 9520 | 3052 | 10479 | 6948 | 40 |
| 21 | 8 | 0635 |  | 3354 | - | 7282 | 9 | 2718 | 39 |
| 22 | 8 | 4442 |  | 2934 | 1 | 1508 | 8 | 8492 | 38 |
| 23 | 8 | 8245 |  | 2515 | 1 | 5730 | 8 | 4270 | 37 |
| 24 | 9 | 2045 |  | 2095 | 1 | 9950 | 8 | 0050 | 36 |
| 25 | 9 | 5840 |  | 1674 | 2 | 4166 | 7 | 5834 | 35 |
| 26 | 9 | 9633 |  | 1253 | 2 | 8379 | 7 | 1621 | 34 |
| 27 | 9500 | 3421 |  | 0832 | 3 | 2589 | 6 | 7411 | 33 |
| 28 | 0 | 7206 |  | 0410 |  | 6795 | 6 | 3205 | 32 |
| 29 | 1 | o987 | 9976 | 9988 | 4 | 0999 | 5 | 9001 | $3^{1}$ |
| 30 | 1 | 4764 |  | 9566 |  | 5199 |  | 4801 | 30 |
|  |  |  | Sin. | . 71 |  |  | Tan. | 71 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 18 |  |  |  | Tan. 18 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9501 | 4764 | 9976 | 9566 | 9524 | 5199 | 10475 | 4801 | 30 |
| 31 | 1 | 8538 |  | 9143 | 4 | 9395 | 5 | 0605 | 29 |
| 32 | 2 | 2308 |  | 8720 | 5 | 3589 | 4 | 6411 | 28 |
| 33 | 2 | 6075 |  | 8296 | 5 | 7779 | 4 | 2221 | 27 |
| 34 | 2 | 9838 |  | 7872 | 6 | 1966 | 3 | 8034 | 26 |
| 35 | 3 | 3597 |  | 7447 | 6 | 6150 | 3 | 3850 | 25 |
| 36 | 3 | 7353 |  | 7022 | 7 | 0331 | 2 | 9669 | 24 |
| 37 | 4 | 1105 |  | 6597 | 7 | 4508 | 2 | 5492 | 23 |
| 38 | 4 | 4853 |  | 6171 | 7 | 8682 | 2 | 1318 | 22 |
| 39 | 4 | 8598 |  | 5745 | 8 | 2853 | 1 | 7147 | 21 |
| 40 | 5 | 2339 |  | 5318 | 8 | 7021 | 1 | 2979 | 20 |
| 41 | 5 | 6077 |  | 4891 | 9 | 1186 |  | 8814 | 19 |
| 42 | 5 | 9811 |  | 4464 | 9 | 5347 | 0 | 4653 | 18 |
| 43 | 6 | 3542 |  | 4036 | 9 | 9505 | 0 | 0495 | 17 |
| 44 | 6 | 7269 |  | 3608 | 9530 | 3661 | 10469 | 6339 | 16 |
| 45 | 7 | 0992 |  | 3179 | 0 | 7813 | 9 | 2187 | 15 |
| 46 | 7 | 4712 |  | 2750 | 1 | 1961 |  | 8039 | 14 |
| 47 | 7 | 8428 |  | 2321 | 1 | 6107 | 8 | 3893 | 13 |
| 48 | 8 | 2141 |  | 1891 | 2 | 0250 | 7 | 9750 | 12 |
| 49 | 8 | 5850 |  | 1461 | 2 | 4389 | 7 | 5611 | 11 |
| 50 | 8 | 9556 |  | 1030 | 2 | 8526 | 7 | 1474 | 10 |
| 51 | 9 | 3258 |  | 0599 | 3 | 2659 | 6 | 7341 | 9 |
| 52 | 9 | 6956 |  | 0167 | 3 | 6789 | 6 | 3211 | 8 |
| 53 | 9510 | 0651 | 9975 | 9736 | 4 | 0916 | 5 | 9084 | 7 |
| 54 | 0 | 4343 |  | 9303 | 4 | 5040 | 5 | 4960 | 6 |
| 55 | 0 | 8031 |  | 8870 | 4 | 9161 | 5 | 0839 | 5 |
| 56 | 1 | 1716 |  | 8437 | 5 | 3278 |  | 6722 | 4 |
| 57 | 1 | 5397 |  | 8004 | 5 | 7393 | 4 | 2607 | 3 |
| 58 | 1 | 9074 |  | 7570 | 6 | 1505 | 3 | 8495 | 2 |
| 59 | 2 | 2749 |  | 7135 |  | 5613 | 3 | 4387 | 1 |
| 60 | 2 | 6419 |  | 6701 | 6 | 9719 | 3 | 0281 | 0 |
|  |  |  | Sin | . 71 |  |  | Tan. | 71 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 19 |  |  |  | Tan. 19 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9512 | 6419 | 9975 | 6701 | 9536 | 9719 | 10463 | 0281 | 60 |
| 1 | 3 | 0086 |  | 6265 | 7 | 3821 | 2 | 6179 | 59 |
| 2 | 3 | 3750 |  | 5830 | 7 | 7920 | 2 | 2080 | 58 |
| 3 | 3 | 7410 |  | 5394 | 8 | 2017 | 1 | 7983 | 57 |
| 4 | 4 | 1067 |  | 4957 | 8 | 6110 | 1 | 3890 | 56 |
| 5 | 4 | 4721 |  | 4521 | 9 | 0200 | 0 | 9800 | 55 |
| 6 | 4 | 8371 |  | 4083 | 9 | 4287 | 0 | 5713 | 54 |
| 7 | 5 | 2017 |  | 3646 | 9 | 8371 | 0 | 1629 | 53 |
| 8 | 5 | 5660 |  | 3208 | 9540 | 2453 | 10459 | 7547 | 52 |
| 9 | 5 | 9300 |  | 2769 | 0 | 6531 | 9 | 3469 | 51 |
| 10 | 6 | 2936 |  | 2330 | 1 | 0606 | 8 | 9394 | 50 |
| 11 | 6 | 6569 |  | 1891 |  | 4678 | 8 | 5322 | 49 |
| 12 | 7 | 0198 |  | 1451 | 1 | 8747 | 8 | 1253 | 48 |
| 13 | 7 | 3824 |  | 1011 | 2 | 2813 | 7 | 7187 | 47 |
| 14 | 7 | 7447 |  | 0570 |  | 6877 | 7 | 3123 | 46 |
| 15 | 8 | 1066 |  | 0129 | 3 | 0937 | 6 | 9063 | 45 |
| 16 | 8 | 4682 | 9974 | 9688 | 3 | 4994 | 6 | 5006 | 44 |
| 17 | 8 | 8295 |  | 9246 | 3 | 9048 | 6 | 0952 | 43 |
| 18 | 9 | 1904 |  | 8804 |  | 3100 | 5 | 6900 | 42 |
| 19 | 9 | 5510 |  | 8361 | 4 | 7148 | 5 | 2852 | 41 |
| 20 | 9 | 9112 |  | 7918 | 5 | 1193 | 4 | 8807 | 40 |
| 21 | 9520 | 2711 |  | 7475 | 5 | 5236 | 4 | 4764 | 39 |
| 22 | 0 | 6307 |  | 7031 |  | 9276 | 4 | 0724 | 38 |
| 23 | 0 | 9899 |  | 6587 | 6 | 3312 | 3 | 6688 | 37 |
| 24 | 1 | 3488 |  | 6142 | 6 | 7346 | 3 | 2654 | 36 |
| 25 | 1 | 7074 |  | 5697 | 7 | 1377 | 2 | 8623 | 35 |
| 26 | 2 | 0656 |  | 5252 | 7 | 5405 | 2 | 4595 | 34 |
| 27 | 2 | 4235 |  | 4806 | 7 | 9430 | 2 | 0570 | 33 |
| 28 | 2 | 7811 |  | 4359 | 8 | 3452 | 1 | 6548 | 32 |
| 29 | 3 | 1383 |  | 3913 | 8 | 7471 | 1 | 2529 | $3^{1}$ |
| 30 | 3 | 4953 |  | 3466 | 9 | 1487 |  | 8513 | 30 |
|  |  |  | Sin. | . 70 |  |  | Tan. | 70 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 19 |  |  | Tan. 19 |  | 10450 | 8513 | 30 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 95234953 | 9974 | 3466 | 9549 | 1487 |  |  |  |
| 31 | 38518 |  | 3018 | 9 | 5500 | 0 | 4500 | 29 |
| 32 | 42081 |  | 2570 | 9 | 9511 | 0 | 0489 | 28 |
| 33 | 45640 |  | 2122 | 9550 | 3519 | 10449 | 6481 | 27 |
| 34 | 49196 |  | 1673 | 0 | 7523 | 9 | 2477 | 26 |
| 35 | 52749 |  | 1224 | 1 | 1525 | 8 | 8475 | 25 |
| 36 | 56298 |  | 0774 | 1 | 5524 | 8 | 4476 | 24 |
| 37 | 59844 |  | 0324 | 1 | 9521 | 8 | 0479 | 23 |
| 38 | 63387 | 9973 | 9873 | 2 | 3514 | 7 | 6486 | 22 |
| 39 | 66927 |  | 9422 | 2 | 7504 | 7 | 2496 | 21 |
| 40 | 70463 |  | 8971 | 3 | 1492 | 6 | 8508 | 20 |
| 41 | 73997 |  | 8519 | 3 | 5477 | 6 | 4523 | 19 |
| 42 | 77526 |  | 8067 | 3 | 9459 | 6 | 0541 | 18 |
| 43 | 81053 |  | 7615 | 4 | 3438 | 5 | 6562 | 17 |
| 44 | 84577 |  | 7162 | 4 | 7415 | 5 | 2585 | 16 |
| 45 | 88097 |  | 6709 | 5 | 1388 | 4 | 8612 | 15 |
| 46 | 91614 |  | 6255 | 5 | 5359 | 4 | 4641 | 14 |
| 47 | 95128 |  | 5801 | 5 | 9327 | 4 | 0673 | 13 |
| 48 | 98638 |  | 5346 | 6 | 3292 | 3 | 6708 | 12 |
| 49 | 95302146 |  | 4891 | 6 | 7255 | 3 | 2745 | 11 |
| 50 | - 5650 |  | 4435 | 7 | 1214 | 2 | 8786 | 10 |
| 51 | 9151 |  | 3980 | 7 | 5171 | 2 | 4829 | 9 |
| 52 | 12649 |  | 3523 | 7 | 9125 | 2 | 0875 | 8 |
| 53 | 16143 |  | 3067 | 8 | 3077 | 1 | 6923 | 7 |
| 54 | 19635 |  | 2610 | 8 | 7025 | 1 | 2975 | 6 |
| 55 | 23123 |  | 2152 | 9 | 0971 | 0 | 9029 | 5 |
| 56 | 26608 |  | 1694 | 9 | 4914 | 0 | 5086 | 4 |
| 57 | 30090 |  | 1236 | 9 | 8854 | 0 | 1146 | 3 |
| 58 | 33569 |  | 0777 | 9560 | 2792 | 10439 | 7208 | 2 |
| 59 | 37044 |  | 0318 | 0 | 6727 | 9 | 3273 | 1 |
| 60 | 40517 | 9972 | 9858 | 1 | 0659 | 8 | 9341 | 0 |
|  |  | Sin | 70 |  |  | Tan. | 70 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 20 |  |  |  | Tan. 20 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9534 | 0517 | 9972 | 9858 | 9561 | 0659 | 10438 | 9341 | 60 |
| 1 | 4 | 3986 |  | 9398 | 1 | 4588 | 8 | 5412 | 59 |
| 2 | 4 | 7452 |  | 8938 | 1 | 8515 | 8 | 1485 | 58 |
| 3 | 5 | 0915 |  | 8477 | 2 | 2439 | 7 | 7561 | 57 |
| 4 | 5 | 4375 |  | 8016 | 2 | 6360 | 7 | 3640 | 56 |
| 5 | 5 | 7832 |  | 7554 | 3 | 0278 | 6 | 9722 | 55 |
| 6 | 6 | 1286 |  | 7092 | 3 | 4194 | 6 | 5806 | 54 |
| 7 | 6 | 4737 |  | 6629 | 3 | 8107 | 6 | 1893 | 53 |
| 8 | 6 | 8184 |  | 6166 | 4 | 2018 | 5 | 7982 | 52 |
| 9 | 7 | 1629 |  | 5703 | 4 | 5925 | 5 | 4075 | 51 |
| 10 | 7 | 5070 |  | 5239 | 4 | 9831 | 5 | 0169 | 50 |
| 11 |  | 8508 |  | 4775 | 5 | 3733 | 4 | 6267 | 49 |
| 12 | 8 | 1943 |  | 4310 | 5 | 7633 | 4 | 2367 | 48 |
| 13 | 8 | 5375 |  | 3845 | 6 | 1530 | 3 | 8470 | 47 |
| 14 | 8 | 8804 |  | 3380 | 6 | 5424 | 3 | 4576 | 46 |
| 15 | 9 | 2230 |  | 2914 | 6 | 9316 | 3 | 0684 | 45 |
| 16 | 9 | 5653 |  | 2448 | 7 | 3205 | 2 | 6795 | 44 |
| 17 | 9 | 9073 |  | 1981 | 7 | 7091 | 2 | 2909 | 43 |
| 18 | 9540 | 2489 |  | 1514 | 8 | 0975 | 1 | 9025 | 42 |
| 19 | 0 | 5903 |  | 1047 | 8 | 4856 | 1 | 5144 | 41 |
| 20 | - | 9314 |  | 0579 | 8 | 8735 | 1 | 1265 | 40 |
| 21 | 1 | 2721 |  | 0110 | 9 | 2611 | 0 | 7389 | 39 |
| 22 | 1 | 6126 | 9971 | 9642 | 9 | 6484 | 0 | 3516 | 38 |
| 23 | 1 | 9527 |  | 9172 | 9570 | 0355 | 10429 | 9645 | 37 |
| 24 | 2 | 2926 |  | 8703 | 0 | 4223 | 9 | 5777 | 36 |
| 25 | 2 | 6321 |  | 8233 | 0 | 8088 | 9 | 1912 | 35 |
| 26 | 2 | 9713 |  | 7762 | 1 | 1951 | 8 | 8049 | 34 |
| 27 | 3 | 3103 |  | 7291 | 1 | 5811 | 8 | 4189 | 33 |
| 28 | 3 | 6489 |  | 6820 | 1 | 9669 |  | 0331 | 32 |
| 29 | 3 | 9873 |  | 6348 | 2 | 3524 | 7 | 6476 | $3^{1}$ |
| 30 | 4 | 3253 |  | 5876 | 2 | 7377 |  | 2623 | 30 |
|  |  |  | Sin. | . 69 |  |  | Tan. | 69 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 20 |  |  |  | Tan. 20 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9544 | 3253 | 9971 | 5876 | 9572 | 7377 | 10427 | 2623 | 30 |
| 31 | 4 | 6630 |  | 5404 | 3 | 1227 | 6 | 8773 | 29 |
| 32 | 5 | 0005 |  | 4931 | 3 | 5074 | 6 | 4926 | 28 |
| 33 | 5 | 3376 |  | 4457 | 3 | 8919 | 6 | 1081 | 27 |
| 34 | 5 | 6745 |  | 3984 | 4 | 2761 | 5 | 7239 | 26 |
| 35 | 6 | 0110 |  | 3509 | 4 | 6601 | 5 | 3399 | 25 |
| 36 | 6 | 3472 |  | 3035 | 5 | 0438 | 4 | 9562 | 24 |
| 37 | 6 | 6832 |  | 2560 | 5 | 4272 |  | 5728 | 23 |
| 38 | 7 | 0189 |  | 2084 | 5 | 8104 | 4 | 1896 | 22 |
| 39 | 7 | 3542 |  | 1608 | 6 | 1934 | 3 | 8066 | 21 |
| 40 | 7 | 6893 |  | 1132 | 6 | 5761 | 3 | 4239 | 20 |
| 41 | 8 | 0240 |  | 0655 | 6 | 9585 | 3 | 0415 | 19 |
| 42 | 8 | 3585 |  | 0178 | 7 | 3407 | 2 | 6593 | 18 |
| 43 | 8 | 6927 | 9970 | 9701 | 7 | 7226 | 2 | 2774 | 17 |
| 44 | 9 | 0266 |  | 9223 | 8 | 1043 | 1 | 8957 | 16 |
| 45 | 9 | 3602 |  | 8744 | 8 | 4858 | 1 | 5142 | 15 |
| 46 | 9 | 6935 |  | 8265 | 8 | 8669 | 1 | 1331 | 14 |
| 47 | 9550 | 0265 |  | 7786 | 9 | 2479 | 0 | 7521 | 13 |
| 48 | 0 | 3592 |  | 7306 | 9 | 6286 | 0 | 3714 | 12 |
| 49 | 0 | 6916 |  | 6826 | 9580 | 0090 | 10419 | 9910 | 11 |
| 50 | 1 | 0237 |  | 6346 | 0 | 3892 | 9 | 6108 | 10 |
| 51 | 1 | 3556 |  | 5865 | 0 | 7691 | 9 | 2309 | 9 |
| 52 | 1 | 6871 |  | 5383 | 1 | 1488 | 8 | 8512 | 8 |
| 53 | 2 | 0184 |  | 4902 | 1 | 5282 | 8 | 4718 | 7 |
| 54 | 2 | 3494 |  | 4419 | 1 | 9074 | 8 | 0926 | 6 |
| 55 | 2 | 6801 |  | 3937 | 2 | 2864 | 7 | 7136 | 5 |
| 56 | 3 | 0105 |  | 3454 | 2 | 6651 |  | 3349 | 4 |
| 57 | 3 | 3406 |  | 2970 | 3 | 0435 |  | 9565 | 3 |
| 58 | 3 | 6704 |  | 2486 | 3 | 4217 |  | 5783 | 2 |
| 59 | 3 | 9999 |  | 2002 | 3 | 7997 |  | 2003 | 1 |
| 60 | 4 | 3292 |  | 1517 | 4 | 1774 | 5 | 8226 | 0 |
|  |  |  | Sin | . 69 |  |  | Tan. | 69 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 21 |  |  |  | Tan. 21 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9554 | 3292 | 9970 | 1517 | 9584 | 1774 | 10415 | 8226 | 60 |
| 1 | 4 | 6581 |  | 1032 | 4 | 5549 | 5 | 4451 | 59 |
| 2 | 4 | 9868 |  | 0547 | 4 | 9321 | 5 | 0679 | 58 |
| 3 | 5 | 3152 |  | 0061 | 5 | 3091 | 4 | 6909 | 57 |
| 4 | 5 | 6433 | 9969 | 9574 | 5 | 6859 | 4 | 3141 | 56 |
| 5 | 5 | 9711 |  | 9087 | 6 | 0624 | 3 | 9376 | 55 |
| 6 | 6 | 2987 |  | 8600 | 6 | 4386 | 3 | 5614 | 54 |
| 7 | 6 | 6259 |  | 8112 | 6 | 8147 | 3 | 1853 | 53 |
| 8 | 6 | 9529 |  | 7624 | 7 | 1904 | 2 | 8096 | 52 |
| 9 | 7 | 2796 |  | 7136 | 7 | 5660 | 2 | 4340 | 51 |
| 10 | 7 | 6060 |  | 6647 | 7 | 9413 | 2 | 0587 | 50 |
| 11 | 7 | 9321 |  | 6158 | 8 | 3163 | 1 | 6837 | 49 |
| 12 | 8 | 2579 |  | 5668 | 8 | 6912 | 1 | 3088 | 48 |
| 13 | 8 | 5835 |  | 5177 | 9 | 0657 | 0 | 9343 | 47 |
| 14 | 8 | 9088 |  | 4687 | 9 | 4401 | 0 | 5599 | 46 |
| 15 | 9 | 2338 |  | 4196 | 9 | 8142 | 0 | 1858 | 45 |
| 16 | 9 | 5585 |  | 3704 | 9590 | 1881 | 10409 | 8119 | 44 |
| 17 | 9 | 8829 |  | 3212 | 0 | 5617 |  | 4383 | 43 |
| 18 | 9560 | 2071 |  | 2720 | - | 9351 | 9 | o649 | 42 |
| 19 | 0 | 5310 |  | 2227 | 1 | 3082 | 8 | 6918 | $4^{1}$ |
| 20 | 0 | 8546 |  | 1734 | 1 | 6812 | 8 | 3188 | 40 |
| 21 | 1 | 1779 |  | 1241 | 2 | 0539 | 7 | 9461 | 39 |
| 22 | 1 | 5010 |  | 0746 | 2 | 4263 | 7 | 5737 | 38 |
| 23 | 1 | 8237 |  | 0252 | 2 | 7985 | 7 | 2015 | 37 |
| 24 | 2 | 1462 | 9968 | 9757 | 3 | 1705 | 6 | 8295 | 36 |
| 25 | 2 | 4685 |  | 9262 |  | 5423 | 6 | 4577 | 35 |
| 26 | 2 | 7904 |  | 8766 | 3 | 9138 | 6 | 0862 | 34 |
| 27 | 3 | 1121 |  | 8270 | 4 | 2851 | 5 | 7149 | 33 |
| 28 | 3 | 4335 |  | 7773 | 4 | 6561 | 5 | 3439 | 32 |
| 29 | 3 | 7546 |  | 7276 | 5 | 0269 |  | 9731 | $3^{1}$ |
| 30 | 4 | 0754 |  | 6779 |  | 3975 |  | 6025 | 30 |
|  |  |  | Sin. | . 68 |  |  | Tan. | 68 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 21 |  |  |  | Tan. 21 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9564 | 0754 | 9968 | 6779 | 9595 | 3975 | 10404 | 6025 | 30 |
| 31 | 4 | 3960 |  | 6281 | 5 | 7679 | 4 | 2321 | 29 |
| 32 | 4 | 7163 |  | 5783 | 6 | 1380 | 3 | 8620 | 28 |
| 33 | 5 | 0363 |  | 5284 | 6 | 5079 | 3 | 4921 | 27 |
| 34 | 5 | 3561 |  | 4785 | 6 | 8776 | 3 | 1224 | 26 |
| 35 | 5 | 6756 |  | 4286 | 7 | 2470 | 2 | 7530 | 25 |
| 36 | 5 | 9948 |  | 3786 | 7 | 6162 | 2 | 3838 | 24 |
| 37 | 6 | 3137 |  | 3285 | 7 | 9852 | 2 | 0148 | 23 |
| 38 | 6 | 6324 |  | 2784 | 8 | 3540 | 1 | 6460 | 22 |
| 39 | 6 | 9508 |  | 2283 | 8 | 7225 | 1 | 2775 | 21 |
| 40 | 7 | 2689 |  | 1781 | 9 | 0908 | - | 9092 | 20 |
| 41 | 7 | 5868 |  | 1279 | 9 | 4588 | 0 | 5412 | 19 |
| 42 | 7 | 9044 |  | 0777 | 9 | 8267 | 0 | 1733 | 18 |
| 43 | 8 | 2217 |  | 0274 | 9600 | 1943 | 10399 | 8057 | 17 |
| 44 | 8 | $53^{87}$ | 9967 | 9771 | 0 | 5617 | 9 | 4383 | 16 |
| 45 | 8 | 8555 |  | 9267 | 0 | 9289 | 9 | 0711 | 15 |
| 46 | 9 | 1721 |  | 8763 | 1 | 2958 | 8 | 7042 | 14 |
| 47 | 9 | 4883 |  | 8258 | 1 | 6625 | 8 | 3375 | 13 |
| 48 | 9 | 8043 |  | 7753 | 2 | 0290 | 7 | 9710 | 12 |
| 49 | 9570 | 1200 |  | 7247 | 2 | 3953 | 7 | 6047 | 11 |
| 50 | 0 | 4355 |  | 6741 | 2 | 7613 | 7 | 2387 | 10 |
| 51 | 0 | 7506 |  | 6235 | 3 | 1271 | 6 | 8729 | 9 |
| 52 | 1 | 0656 |  | 5728 | 3 | 4927 | 6 | 5073 | 8 |
| 53 | 1 | 3802 |  | 5221 | 3 | 8581 | 6 | 1419 | 7 |
| 54 | 1 | 6946 |  | 4713 | 4 | 2233 | 5 | 7767 | 6 |
| 55 | 2 | 0087 |  | 4205 | 4 | 5882 | 5 | 4118 | 5 |
| 56 | 2 | 3226 |  | 3697 | 4 | 9529 | 5 | 0471 | 4 |
| 57 | 2 | 6362 |  | 3188 | 5 | 3174 | 4 | 6826 | 3 |
| 58 | 2 | 9495 |  | 2679 | 5 | 6817 | 4 | 3183 | 2 |
| 59 | 3 | 2626 |  | 2169 | 6 | 0457 | 3 | 9543 | 1 |
| 60 | 3 | 5754 |  | 1659 | 6 | 4096 | 3 | 5904 | 0 |
|  |  |  | Sin | 68 |  |  | Tan. | 68 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 22 |  |  |  | Tan. 22 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9573 | 5754 | 9967 | 1659 | 9606 | 4096 | 10393 | 5904 | 60 |
| 1 | 3 | 8880 |  | 1148 | 6 | 7732 | 3 | 2268 | 59 |
| 2 | 4 | 2003 |  | 0637 | 7 | 1366 | 2 | 8634 | 58 |
| 3 | 4 | 5123 |  | 0125 | 7 | 4997 | 2 | 5003 | 57 |
| 4 | 4 | 8240 | 9966 | 9614 | 7 | 8627 | 2 | 1373 | 56 |
| 5 | 5 | 1356 |  | 9101 | 8 | 2254 | 1 | 7746 | 55 |
| 6 | 5 | 4468 |  | 8588 | 8 | 5880 | 1 | 4120 | 54 |
| 7 | 5 | 7578 |  | 8075 | 8 | 9503 | 1 | 0497 | 53 |
| 8 | 6 | 0685 |  | 7562 | 9 | 3124 | 0 | 6876 | 52 |
| 9 | 6 | 3790 |  | 7048 | 9 | 6742 | 0 | 3258 | 51 |
| 10 | 6 | 6892 |  | 6533 | 9610 | 0359 | 10389 | 9641 | 50 |
| 11 | 6 | 9991 |  | 6018 | 0 | 3973 | 9 | 6027 | 49 |
| 12 | 7 | 3088 |  | 5503 | - | 7586 | 9 | 2414 | 48 |
| 13 | 7 | 6183 |  | 4987 | 1 | 1196 | 8 | 8804 | 47 |
| 14 | 7 | 9275 |  | 4471 | 1 | 4804 | 8 | 5196 | 46 |
| 15 | 8 | 2364 |  | 3954 | 1 | 8409 | 8 | 1591 | 45 |
| 16 | 8 | 5450 |  | 3437 | 2 | 2013 |  | 7987 | 44 |
| 17 | 8 | 8535 |  | 2920 | 2 | 5615 | 7 | 4385 | 43 |
| 18 | 9 | 1616 |  | 2402 | 2 | 9214 | 7 | 0786 | 42 |
| 19 | 9 | 4695 |  | 1884 | 3 | 2812 | 6 | 7188 | 41 |
| 20 | 9 | 7772 |  | 1365 | 3 | 6407 | 6 | 3593 | 40 |
| 21 | 9580 | 0845 |  | 0846 | 4 | 0000 | 6 | 0000 | 39 |
| 22 | 0 | 3917 |  | 0326 | 4 | 3591 | 5 | 6409 | 38 |
| 23 | 0 | 6986 | 9965 | 9806 | 4 | 7180 | 5 | 2820 | 37 |
| 24 | 1 | 0052 |  | 9285 | 5 | 0766 |  | 9234 | 36 |
| 25 | 1 | 3116 |  | 8764 | 5 | 4351 | 4 | 5649 | 35 |
| 26 | 1 | 6177 |  | 8243 | 5 | 7934 | 4 | 2066 | 34 |
| 27 | 1 | 9236 |  | 7721 | 6 | 1514 | 3 | 8486 | 33 |
| 28 | 2 | 2292 |  | 7199 | 6 | 5093 | 3 | 4907 | 32 |
| 29 | 2 | 5345 |  | 6677 | 6 | 8669 | 3 | 1331 | 31 |
| 30 | 2 | 8397 |  | 6153 | 7 | 2243 |  | 7757 | 30 |
|  |  |  | Sin. | . 67 |  |  | Tan. | 67 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 22 |  |  |  | Tan. 22 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9582 | 8397 | 9965 | 6153 | 9617 | 2243 | 10382 | 7757 | 30 |
| 31 | 3 | 1445 |  | 5630 | 7 | 5815 | 2 | 4185 | 29 |
| 32 | 3 | 4491 |  | 5106 | 7 | 9385 | 2 | 0615 | 28 |
| 33 | 3 | 7535 |  | 4582 | 8 | 2953 |  | 7047 | 27 |
| 34 | 4 | 0576 |  | 4057 | 8 | 6519 |  | 3481 | 26 |
| 35 | 4 | 3615 |  | 3532 | 9 | 0083 | 0 | 9917 | 25 |
| 36 | 4 | 6651 |  | 3006 | 9 | 3645 | 0 | 6355 | 24 |
| 37 | 4 | 9685 |  | 2480 | 9 | 7205 | 0 | 2795 | 23 |
| 38 | 5 | 2716 |  | 1953 | 9620 | 0762 | 10379 | 9238 | 22 |
| 39 | 5 | 5745 |  | 1426 | 0 | 4318 | 9 | 5682 | 21 |
| 40 | 5 | 8771 |  | o899 | 0 | 7872 | 9 | 2128 | 20 |
| 41 | 6 | 1795 |  | 0371 | 1 | 1423 | 8 | 8577 | 19 |
| 42 | 6 | 4816 | 9964 | 9843 | 1 | 4973 | 8 | 5027 | 18 |
| 43 | 6 | 7835 |  | 9314 | 1 | 8520 | 8 | 1480 | 17 |
| 44 | 7 | 0851 |  | 8785 | 2 | 2066 | 7 | 7934 | 16 |
| 45 | 7 | 3865 |  | 8256 | 2 | 5609 | 7 | 4391 | 15 |
| 46 | 7 | 6876 |  | 7726 | 2 | 9150 | 7 | o850 | 14 |
| 47 | 7 | 9885 |  | 7195 | 3 | 2690 | 6 | 7310 | 13 |
| 48 | 8 | 2892 |  | 6665 | 3 | 6227 |  | 3773 | 12 |
| 49 | 8 | 5896 |  | 6133 | 3 | 9763 | 6 | 0237 | 11 |
| 50 | 8 | 8897 |  | 5602 | 4 | 3296 | 5 | 6704 | 10 |
| 51 | 9 | 1897 |  | 5069 | 4 | 6827 | 5 | 3173 | 9 |
| 52 | 9 | 4893 |  | 4537 | 5 | 0356 | 4 | 9644 | 8 |
| 53 | 9 | 7888 |  | 4004 | 5 | 3884 | 4 | 6116 | 7 |
| 54 | 9590 | 0880 |  | 3470 | 5 | 7409 | 4 | 2591 | 6 |
| 55 | 0 | 3869 |  | 2937 | 6 | 0932 | 3 | 9068 | 5 |
| 56 | 0 | 6856 |  | 2402 | 6 | 4454 | 3 | 5546 | 4 |
| 57 | 0 | 9841 |  | 1868 | 6 | 7973 | 3 | 2027 | 3 |
| 58 | 1 | 2823 |  | 1332 | 7 | 1491 | 2 | 8509 | 2 |
| 59 | 1 | 5803 |  | 0797 | 7 | 5006 | 2 | 4994 | 1 |
| 60 | 1 | 8780 |  | 0261 | 7 | 8519 | 2 | 1481 | 0 |
|  |  |  | Sin | . 67 |  |  | Tan. | 67 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 23 |  |  |  | Tan. 23 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9591 | 8780 | 9964 | 0261 | 9627 | 8519 | 10372 | 1481 | 60 |
| 1 | 2 | 1755 | 9963 | 9724 | 8 | 2031 | 1 | 7969 | 59 |
| 2 | 2 | 4728 |  | 9187 | 8 | 5540 | 1 | 4460 | 58 |
| 3 | 2 | 7698 |  | 8650 | 8 | 9048 | 1 | 0952 | 57 |
| 4 | 3 | o666 |  | 8112 | 9 | 2553 | 0 | 7447 | 56 |
| 5 | 3 | 3631 |  | 7574 | 9 | 6057 | 0 | 3943 | 55 |
| 6 | 3 | 6594 |  | 7036 | 9 | 9558 | 0 | 0442 | 54 |
| 7 | 3 | 9555 |  | 6496 | 9630 | 3058 | 10369 | 6942 | 53 |
| 8 | 4 | 2513 |  | 5957 | 0 | 6556 | 9 | 3444 | 52 |
| 9 | 4 | 5469 |  | 5417 | 1 | 0052 | 8 | 9948 | 51 |
| 10 | 4 | 8422 |  | 4877 | 1 | 3545 | 8 | 6455 | 50 |
| 11 | 5 | 1373 |  | 4336 |  | 7037 | 8 | 2963 | 49 |
| 12 | 5 | 4322 |  | 3795 |  | 0527 | 7 | 9473 | 48 |
| 13 | 5 | 7268 |  | 3253 |  | 4015 | 7 | 5985 | 47 |
| 14 | 6 | 0212 |  | 2711 | 2 | 7501 | 7 | 2499 | 46 |
| 15 | 6 | 3154 |  | 2168 | 3 | 0985 | 6 | 9015 | 45 |
| 16 | 6 | 6093 |  | 1625 | 3 | 4468 | 6 | 5532 | 44 |
| 17 | 6 | 9030 |  | 1082 |  | 7948 | 6 | 2052 | 43 |
| 18 | 7 | 1965 |  | 0538 |  | 1426 | 5 | 8574 | 42 |
| 19 | 7 | 4897 | 9962 | 9994 |  | 4903 | 5 | 5097 | 41 |
| 20 | 7 | 7827 |  | 9449 | 4 | 8378 | 5 | 1622 | 40 |
| 21 | 8 | 0754 |  | 8904 | 5 | 1850 | 4 | 8150 | 39 |
| 22 | 8 | 3679 |  | 8358 |  | 5321 | 4 | 4679 | 38 |
| 23 | 8 | 6602 |  | 7812 |  | 8790 | 4 | 1210 | 37 |
| 24 | 8 | 9523 |  | 7266 |  | 2257 | 3 | 7743 | 36 |
| 25 | 9 | 2441 |  | 6719 |  | 5722 | 3 | 4278 | 35 |
| 26 | 9 | 5357 |  | 6172 |  | 9185 | 3 | 0815 | 34 |
| 27 | 9 | 8270 |  | 5624 |  | 2646 | 2 | 7354 | 33 |
| 28 | 9600 | 1181 |  | 5076 |  | 6106 | 2 | 3894 | 32 |
| 29 | 0 | 4090 |  | 4527 |  | 9563 | 2 | 0437 | $3^{1}$ |
| 30 | 0 | 6997 |  | 3978 | 8 | 3019 | 1 | 6981 | 30 |
|  |  |  | Sin. | . 66 |  |  | Tan. | 66 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 23 |  |  |  | Tan. 23 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9600 | 6997 | 9962 | 3978 | 9638 | 3019 | 10361 | 6981 | 30 |
| 31 | 0 | 9901 |  | 3428 | 8 | 6473 | 1 | 3527 | 29 |
| 32 | 1 | 2803 |  | 2878 | 8 | 9925 |  | 0075 | 28 |
| 33 | 1 | 5703 |  | 2328 | 9 | 3375 | - | 6625 | 27 |
| 34 | 1 | 8600 |  | 1777 | 9 | 6823 | 0 | 3177 | 26 |
| 35 | 2 | 1495 |  | 1226 | 9640 | 0269 | 10359 | 9731 | 25 |
| 36 | 2 | 4388 |  | 0674 | 0 | 3714 | 9 | 6286 | 24 |
| 37 | 2 | 7278 |  | 0122 | 0 | 7156 |  | 2844 | 23 |
| 38 | 3 | 0166 | 9961 | 9569 | 1 | 0597 | 8 | 9403 | 22 |
| 39 | 3 | 3052 |  | 9016 | 1 | 4036 | 8 | 5964 | 21 |
| 40 | 3 | 5936 |  | 8463 | 1 | 7473 | 8 | 2527 | 20 |
| 41 | 3 | 8817 |  | 7909 | 2 | 0908 | 7 | 9092 | 19 |
| 42 | 4 | 1696 |  | 7355 | 2 | 4342 | 7 | 5658 | 18 |
| 43 |  | 4573 |  | 6800 | 2 | 7773 | 7 | 2227 | 17 |
| 44 | 4 | 7448 |  | 6245 | 3 | 1203 | 6 | 8797 | 16 |
| 45 | 5 | 0320 |  | 5689 | 3 | 4631 | 6 | 5369 | 15 |
| 46 | 5 | 3190 |  | 5133 | 3 | 8057 | 6 | 1943 | 14 |
| 47 | 5 | 6057 |  | 4576 | 4 | 1481 | 5 | 8519 | 13 |
| 48 | 5 | 8923 |  | 4020 | 4 | 4903 | 5 | 5097 | 12 |
| 49 | 6 | 1786 |  | 3462 | 4 | 8324 | 5 | 1676 | 11 |
| 50 | 6 | 4647 |  | 2904 | 5 | 1743 | 1 | 8257 | 10 |
| 51 | 6 | 7506 |  | 2346 | 5 | 5160 |  | 4840 | 9 |
| 52 | 7 | 0362 |  | 1787 | 5 | 8575 | 4 | 1425 | 8 |
| 53 | 7 | 3216 |  | 1228 | 6 | 1988 | 3 | 8012 | 7 |
| 54 | 7 | 6068 |  | 0668 | 6 | 5400 | 3 | 4600 | 6 |
| 55 | 7 | 8918 |  | 0108 | 6 | 8810 | 3 | 1190 | 5 |
| 56 | 8 | 1765 | 9960 | 9548 | 7 | 2217 | 2 | 7783 | 4 |
| 57 | 8 | 4611 |  | 8987 | 7 | 5624 | 2 | 4376 | 3 |
| 58 | 8 | 7454 |  | 8426 | 7 | 9028 | 2 | 0972 | 2 |
| 59 | 9 | 0294 |  | 7864 | 8 | 2431 |  | 7569 | 1 |
| 60 | 9 | 3133 |  | 7302 | 8 | 5831 |  | 4169 | 0 |
|  |  |  | Sin | . 66 |  |  | Tan. | 66 | M |


| M | Sin. 24 |  |  |  | Tan. 24 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9609 | 3133 | 9960 | 7302 | 9648 | 5831 | 10351 | 4169 | 60 |
| 1 | 9 | 5969 |  | 6739 | 8 | 9230 | 1 | 0770 | 59 |
| 2 | 9 | 8803 |  | 6176 | 9 | 2628 | 0 | 7372 | 58 |
| 3 | 9610 | 1635 |  | 5612 | 9 | 6023 | 0 | 3977 | 57 |
| 4 | 0 | 4465 |  | 5048 | 9 | 9417 | 0 | 0583 | 56 |
| 5 | 0 | 7293 |  | 4484 | 9650 | 2809 | 10349 | 7191 | 55 |
| 6 | 1 | 0118 |  | 3919 | 0 | 6199 | 9 | 3801 | 54 |
| 7 | 1 | 2941 |  | 3354 |  | 9587 | 9 | 0413 | 53 |
| 8 | 1 | 5762 |  | 2788 |  | 2974 | 8 | 7026 | 52 |
| 9 | 1 | 8580 |  | 2222 | 1 | 6359 | 8 | 3641 | 51 |
| 10 | 2 | 1397 |  | 1655 |  | 9742 | 8 | 0258 | 50 |
| 11 | 2 | 4211 |  | 1088 |  | 3123 | 7 | 6877 | 49 |
| 12 | 2 | 7023 |  | 0520 | 2 | 6503 | 7 | 3497 | 48 |
| 13 | 2 | 9833 | 9959 | 9952 | 2 | 9881 | 7 | 0119 | 47 |
| 14 | 3 | 2641 |  | 9384 |  | 3257 | 6 | 6743 | 46 |
| 15 | 3 | 5446 |  | 8815 | 3 | 6631 | 6 | 3369 | 45 |
| 16 | 3 | 8250 |  | 8246 | 4 | 0004 | 5 | 9996 | 44 |
| 17 | 4 | 1051 |  | 7676 | 4 | 3375 | 5 | 6625 | 43 |
| 18 | 4 | 3850 |  | 7106 | 4 | 6744 | 5 | 3256 | 42 |
| 19 | 1 | 6647 |  | 6535 | 5 | 0112 |  | 9888 | 41 |
| 20 | 4 | 9441 |  | 5964 |  | 3477 | 4 | 6523 | 40 |
| 21 | 5 | 2234 |  | 5393 |  | 6841 | 4 | 3159 | 39 |
| 22 | 5 | 5024 |  | 4821 |  | 0204 | 3 | 9796 | $3^{8}$ |
| 23 | 5 | 7812 |  | 4248 |  | 3564 | 3 | 6436 | 37 |
| 24 | 6 | 0599 |  | 3675 |  | 6923 | 3 | 3077 | 36 |
| 25 | 6 | 3382 |  | 3102 |  | 0280 | 2 | 9720 | 35 |
| 26 | 6 | 6164 |  | 2528 |  | 3636 | 2 | 6364 | 34 |
| 27 | 6 | 8944 |  | 1954 |  | 6989 | 2 | 3011 | 33 |
| 28 | 7 | 1721 |  | 1380 | 8 | 0341 | 1 | 9659 | 32 |
| 29 | 7 | 4496 |  | 0805 | 8 | 3692 | 1 | 6308 | $3^{1}$ |
| 30 | 7 | 7270 |  | 0229 | 8 | 7041 |  | 2959 | 30 |
|  |  |  | Sin. | 65 |  |  | Tan. | 65 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 24 |  |  |  | Tan. 24 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9617 | 7270 | 9959 | 0229 | 9658 | 7041 | 10341 | 2959 | 30 |
| 31 |  | 0041 | 9958 | 9653 | 9 | 0387 | 0 | 9613 | 29 |
| 32 | 8 | 2809 |  | 9077 | 9 | 3733 | 0 | 6267 | 28 |
| 33 | 8 | 5576 |  | 8500 | 9 | 7076 | 0 | 2924 | 27 |
| 34 | 8 | 8341 |  | 7923 | 9660 | 0418 | 10339 | 9582 | 26 |
| 35 | 9 | 1103 |  | 7345 | 0 | 3758 | 9 | 6242 | 25 |
| 36 | 9 | 3864 |  | 6767 | 0 | 7097 | 9 | 2903 | 24 |
| 37 | 9 | 6622 |  | 6188 | 1 | 0434 | 8 | 9566 | 23 |
| 38 | 9 | 9378 |  | 5609 | 1 | 3769 | 8 | 6231 | 22 |
| 39 | 9620 | 2132 |  | 5030 | 1 | 7103 | 8 | 2897 | 21 |
| 40 | 0 | 4884 |  | 4450 | 2 | 0434 | 7 | 9566 | 20 |
| 41 | 0 | 7634 |  | 3869 | 2 | 3765 | 7 | 6235 | 19 |
| 42 | 1 | 0382 |  | 3288 | 2 | 7093 | 7 | 2907 | 18 |
| 43 | 1 | 3127 |  | 2707 | 3 | 0420 |  | 9580 | 17 |
| 44 | 1 | 5871 |  | 2125 | 3 | 3745 | 6 | 6255 | 16 |
| 45 | 1 | 8612 |  | 1543 | 3 | 7069 | 6 | 2931 | 15 |
| 46 | 2 | 1351 |  | 0961 | 4 | 0391 | 5 | 9609 | 14 |
| 47 | 2 | 4088 |  | 0378 | 4 | 3711 | 5 | 6289 | 13 |
| 48 | 2 | 6824 | 9957 | 9794 | 4 | 7030 | 5 | 2970 | 12 |
| 49 | 2 | 9557 |  | 9210 | 5 | 0346 |  | 9654 | 11 |
| 50 | 3 | 2287 |  | 8626 | 5 | 3662 | 4 | 6338 | 10 |
| 51 | 3 | 5016 |  | 8041 | 5 | 6975 | 4 | 3025 | 9 |
| 52 | 3 | 7743 |  | 7456 | 6 | 0288 | 3 | 9712 | 8 |
| 53 | 4 | 0468 |  | 6870 | 6 | 3598 | 3 | 6402 | 7 |
| 54 | 4 | 3190 |  | 6284 | 6 | 6907 | 3 | 3093 | 6 |
| 55 | 4 | 5911 |  | 5697 | 7 | 0214 |  | 9786 | 5 |
| 56 | 4 | 8629 |  | 5110 |  | 3519 | 2 | 6481 | 4 |
| 57 | 5 | 1346 |  | 4522 | 7 | 6823 | 2 | 3177 | 3 |
| 58 | 5 | 4060 |  | 3934 | 8 | 0126 |  | 9874 | 2 |
| 59 | 5 | 6772 |  | 3346 | 8 | 3426 | 1 | 6574 | 1 |
| 60 | 5 | 9483 |  | 2757 | 8 | 6725 |  | 3275 | 0 |
|  |  |  | Sin. | . 65 |  |  | Tan. | 65 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 25 |  |  |  | Tan. 25 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9625 | 9483 | 9957 | 2757 | 9668 | 6725 | 10331 | 3275 | 60 |
| 1 | 6 | 2191 |  | 2168 | 9 | 0023 | 0 | 9977 | 59 |
| 2 | 6 | 4897 |  | 1578 | 9 | 3319 | 0 | 6681 | 58 |
| 3 | 6 | 7601 |  | 0988 | 9 | 6613 | - | 3387 | 57 |
| 4 | 7 | 0303 |  | 0397 | 9 | 9906 | 0 | 0094 | 56 |
| 5 | 7 | 3003 | 9956 | 9806 | 9670 | 3197 | 10329 | 6803 | 55 |
| 6 | 7 | 5701 |  | 9215 | - | 6486 | 9 | 3514 | 54 |
| 7 | 7 | 8397 |  | 8623 |  | 9774 | 9 | 0226 | 53 |
| 8 | 8 | 1090 |  | 8030 |  | 3060 | 8 | 6940 | 52 |
| 9 | 8 | 3782 |  | 7437 | 1 | 6345 | 8 | 3655 | 51 |
| 10 | 8 | 6472 |  | 6844 | 1 | 9628 | 8 | 0372 | 50 |
| 11 | 8 | 9160 |  | 6250 |  | 2910 | 7 | 7090 | 49 |
| 12 | 9 | 1845 |  | 5656 | 2 | 6190 | 7 | 3810 | 48 |
| 13 | 9 | 4529 |  | 5061 |  | 9468 | 7 | 0532 | 47 |
| 14 | 9 | 7211 |  | 4466 | 3 | 2745 | 6 | 7255 | 46 |
| 15 | 9 | 9890 |  | 3870 | 3 | 6020 | 6 | 3980 | 45 |
| 16 | 9630 | 2568 |  | 3274 |  | 9294 | 6 | 0706 | 44 |
| 17 | 0 | 5243 |  | 2678 | 4 | 2566 | 5 | 7434 | 43 |
| 18 | 0 | 7917 |  | 2081 | 4 | 5836 | 5 | 4164 | 42 |
| 19 | 1 | 0589 |  | 1483 |  | 9105 | 5 | 0895 | 41 |
| 20 | 1 | 3258 |  | 0886 | 5 | 2372 | 4 | 7628 | 40 |
| 21 | 1 | 5926 |  | 0287 | 5 | 5638 | 4 | 4362 | 39 |
| 22 | 1 | 8591 | 9955 | 9689 | 5 | 8903 | 4 | 1097 | 38 |
| 23 | 2 | 1255 |  | 9089 |  | 2165 | 3 | 7835 | 37 |
| 24 | 2 | 3916 |  | 8490 |  | 5426 | 3 | 4574 | 36 |
| 25 | 2 | 6576 |  | 7890 | 6 | 8686 | 3 | 1314 | 35 |
| 26 | 2 | 9233 |  | 7289 | 7 | 1944 | 2 | 8056 | 34 |
| 27 | 3 | 1889 |  | 6688 | 7 | 5201 | 2 | 4799 | 33 |
| 28 | 3 | 4542 |  | 6087 |  | 8456 | 2 | 1544 | 32 |
| 29 | 3 | 7194 |  | 5485 | 8 | 1709 | 1 | 8291 | $3^{1}$ |
| 30 | 3 | 9844 |  | 4882 | 8 | 4961 |  | 5039 | 30 |
|  |  |  | Sin. | . 64 |  |  | Tan. | 64 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 25 |  |  |  | Tan. 25 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9633 | 9844 | 9955 | 4882 | 9678 | 4961 | 10321 | 5039 | 30 |
| 31 | 4 | 2491 |  | 4280 | 8 | 8211 | 1 | 1789 | 29 |
| 32 | 4 | 5137 |  | 3676 | 9 | 1460 | 0 | 8540 | 28 |
| 33 | 4 | 7780 |  | 3073 | 9 | 4708 | 0 | 5292 | 27 |
| 34 | 5 | 0422 |  | 2469 | 9 | 7953 | 0 | 2047 | 26 |
| 35 | 5 | 3062 |  | 1864 | 9680 | 1198 | 10319 | 8802 | 25 |
| 36 | 5 | 5699 |  | 1259 | 0 | 4440 | 9 | 5560 | 24 |
| 37 | 5 | 8335 |  | 0653 | 0 | 7682 | 9 | 2318 | 23 |
| 38 | 6 | og69 |  | 0047 | 1 | 0921 | 8 | 9079 | 22 |
| 39 | 6 | 3601 | 9954 | 9441 | 1 | 4160 | 8 | 5840 | 21 |
| 40 | 6 | 6231 |  | 8834 | 1 | 7396 | 8 | 2604 | 20 |
| 41 | 6 | 8859 |  | 8227 | 2 | 0632 |  | 9368 | 19 |
| 42 | 7 | 1484 |  | 7619 | 2 | 3865 | 7 | 6135 | 18 |
| 43 | 7 | 4108 |  | 7011 | 2 | 7098 | 7 | 2902 | 17 |
| 44 | 7 | 6731 |  | 6402 | 3 | 0328 | 6 | 9672 | 16 |
| 45 | 7 | 9351 |  | 5793 | 3 | 3557 | 6 | 6443 | 15 |
| 46 | 8 | 1969 |  | 5184 | 3 | 6785 | 6 | 3215 | 14 |
| 47 | 8 | 4585 |  | 4574 | 4 | 0011 | 5 | 9989 | 13 |
| 48 | 8 | 7199 |  | 3963 | 4 | 3236 | 5 | 6764 | 12 |
| 49 | 8 | 9812 |  | 3352 | 4 | 6459 | 5 | 3541 | 11 |
| 50 | 9 | 2422 |  | 2741 | 4 | 9681 | 5 | 0319 | 10 |
| 51 | 9 | 5030 |  | 2129 | 5 | 2901 | 4 | 7099 | 9 |
| 52 | 9 | 7637 |  | 1517 | 5 | 6120 | 4 | 3880 | 8 |
| 53 | 9640 | 0241 |  | 0904 | 5 | 9338 | 4 | 0662 | 7 |
| 54 | 0 | 2844 |  | 0291 | 6 | 2553 | 3 | 7447 | 6 |
| 55 | 0 | 5445 | 9953 | 9677 | 6 | 5768 | 3 | 4232 | 5 |
| 56 | 0 | 8044 |  | 9063 | 6 | 8981 | 3 | 1019 | 4 |
| 57 | 1 | 0640 |  | 8448 | 7 | 2192 | 2 | 7808 | 3 |
| 58 | 1 | 3235 |  | 7833 | 7 | 5402 | 2 | 4598 | 2 |
| 59 | 1 | 5828 |  | 7218 | 7 | 8611 | 2 | 1389 | 1 |
| 60 | 1 | 8420 |  | 6602 | 8 | 1818 | 1 | 8182 | 0 |
|  |  |  | Sin. | . 64 |  |  | Tan. | 64 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 26 |  |  |  | Tan. 26 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9641 | 8420 | 9953 | 6602 | 9688 | 1818 | 10311 | 8182 | 60 |
| 1 | 2 | 1009 |  | 5985 | 8 | 5023 | 1 | 4977 | 59 |
| 2 | 2 | 3596 |  | 5369 | 8 | 8227 | 1 | 1773 | 58 |
| 3 | 2 | 6182 |  | 4751 | 9 | 1430 | 0 | 8570 | 57 |
| 4 | 2 | 8765 |  | 4134 | 9 | 4631 | 0 | 5369 | 56 |
| 5 | 3 | 1347 |  | 3515 | 9 | 7831 | 0 | 2169 | 55 |
| 6 | 3 | 3926 |  | 2897 | 9690 | 1030 | 10309 | 8970 | 54 |
| 7 | 3 | 6504 |  | 2278 | 0 | 4226 | 9 | 5774 | 53 |
| 8 | 3 | 9080 |  | 1658 | 0 | 7422 | 9 | 2578 | 52 |
| 9 | 4 | 1654 |  | 1038 | 1 | 0616 | 8 | 9384 | 51 |
| 10 | 4 | 4226 |  | 0418 | 1 | 3809 | 8 | 6191 | 50 |
| 11 | 4 | 6796 | 9952 | 9797 | 1 | 7000 | 8 | 3000 | 49 |
| 12 | 4 | 9365 |  | 9175 | 2 | 0189 | 7 | 9811 | 48 |
| 13 | 5 | 1931 |  | 8553 | 2 | 3378 | 7 | 6622 | 47 |
| 14 | 5 | 4496 |  | 7931 | 2 | 6565 | 7 | 3435 | 46 |
| 15 | 5 | 7058 |  | 7308 | 2 | 9750 | 7 | 0250 | 45 |
| 16 | 5 | 9619 |  | 6685 |  | 2934 | 6 | 7066 | 44 |
| 17 |  | 2178 |  | 6061 | 3 | 6117 | 6 | 3883 | 43 |
| 18 | 6 | 4735 |  | 5437 | 3 | 9298 | 6 | 0702 | 42 |
| 19 | 6 | 7290 |  | 4813 | 4 | 2478 | 5 | 7522 | 41 |
| 20 | 6 | 9844 |  | 4188 | 4 | 5656 | 5 | 4344 | 40 |
| 21 | 7 | 2395 |  | 3562 | 4 | 8833 | 5 | 1167 | 39 |
| 22 | 7 | 4945 |  | 2936 | 5 | 2009 | 4 | 7991 | 38 |
| 23 | 7 | 7492 |  | 2310 | 5 | 5183 | 4 | 4817 | 37 |
| 24 | 8 | 0038 |  | 1683 | 5 | 8355 | 4 | 1645 | 36 |
| 25 | 8 | 2582 |  | 1055 | 6 | 1527 | 3 | 8473 | 35 |
| 26 | 8 | 5124 |  | 0428 |  | 4697 | 3 | 5303 | 34 |
| 27 | 8 | 7665 | 9951 | 9799 | 6 | 7865 | 3 | 2135 | 33 |
| 28 | 9 | 0203 |  | 9171 | 7 | 1032 | 2 | 8968 | 32 |
| 29 | 9 | 2740 |  | 8541 | 7 | 4198 | 2 | 5802 | 31 |
| 30 | 9 | 5274 |  | 7912 |  | 7363 |  | 2637 | 30 |
|  |  |  | Sin. | 63 |  |  | Tan. | 63 | M |

Gunter's table (reconstruction, D. Roegel, 2010)


Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 27 |  |  |  | Tan. 27 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9657 | 0468 | 9949 | 8809 | 9707 | 1659 | 10292 | 8341 | 60 |
| 1 | 7 | 2946 |  | 8165 | 7 | 4781 | 2 | 5219 | 59 |
| 2 | 7 | 5423 |  | 7521 | 7 | 7902 | 2 | 2098 | 58 |
| 3 | 7 | 7898 |  | 6876 | 8 | 1022 | 1 | 8978 | 57 |
| 4 | 8 | 0371 |  | 6230 | 8 | 4141 | 1 | 5859 | 56 |
| 5 | 8 | 2842 |  | 5585 | 8 | 7258 | 1 | 2742 | 55 |
| 6 | 8 | 5312 |  | 4938 | 9 | 0374 | 0 | 9626 | 54 |
| 7 | 8 | 7780 |  | 4292 | 9 | 3488 | O | 6512 | 53 |
| 8 | 9 | 0246 |  | 3645 | 9 | 6601 | 0 | 3399 | 52 |
| 9 | 9 | 2710 |  | 2997 | 9 | 9713 | 0 | 0287 | 51 |
| 10 | 9 | 5173 |  | 2349 | 9710 | 2824 | 10289 | 7176 | 50 |
| 11 | 9 | 7633 |  | 1700 | 0 | 5933 | 9 | 4067 | 49 |
| 12 | 9660 | 0093 |  | 1051 | 0 | 9041 | 9 | 0959 | 48 |
| 13 | 0 | 2550 |  | 0402 | 1 | 2148 | 8 | 7852 | 47 |
| 14 | 0 | 5005 | 9948 | 9752 | 1 | 5254 | 8 | 4746 | 46 |
| 15 | 0 | 7459 |  | 9101 | 1 | 8358 | 8 | 1642 | 45 |
| 16 | 0 | 9911 |  | 8450 | 2 | 1461 | 7 | 8539 | 44 |
| 17 | 1 | 2361 |  | 7799 | 2 | 4562 | 7 | 5438 | 43 |
| 18 | 1 | 4810 |  | 7147 | 2 | 7662 |  | 2338 | 42 |
| 19 | 1 | 7257 |  | 6495 | 3 | 0761 | 6 | 9239 | 41 |
| 20 | 1 | 9702 |  | 5842 | 3 | 3859 |  | 6141 | 40 |
| 21 | 2 | 2145 |  | 5189 | 3 | 6956 | 6 | 3044 | 39 |
| 22 | 2 | 4586 |  | 4535 | 4 | 0051 | 5 | 9949 | 38 |
| 23 | 2 | 7026 |  | 3881 | 4 | 3145 | 5 | 6855 | 37 |
| 24 | 2 | 9464 |  | 3227 | 4 | 6237 |  | 3763 | 36 |
| 25 | 3 | 1900 |  | 2572 | 4 | 9329 |  | 0671 | 35 |
| 26 | 3 | 4335 |  | 1916 | 5 | 2419 | 4 | 7581 | 34 |
| 27 | 3 | 6768 |  | 1260 | 5 | 5508 | 4 | 4492 | 33 |
| 28 | 3 | 9199 |  | 0604 |  | 8595 |  | 1405 | 32 |
| 29 | 4 | 1628 | 9947 | 9947 | 6 | 1682 |  | 8318 | 31 |
| 30 | 4 | 4056 |  | 9289 | 6 | 4767 |  | 5233 | 30 |
|  |  |  | Sin. | . 62 |  |  | Tan | 62 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 27 |  |  |  | Tan. 27 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9664 | 4056 | 9947 | 9289 | 9716 | 4767 | 10283 | 5233 | 30 |
| 31 | 4 | 6482 |  | 8631 | 6 | 7851 | 3 | 2149 | 29 |
| 32 | 4 | 8906 |  | 7973 | 7 | 0933 | 2 | 9067 | 28 |
| 33 | 5 | 1329 |  | 7314 | 7 | 4014 | 2 | 5986 | 27 |
| 34 | 5 | 3749 |  | 6655 | 7 | 7094 | 2 | 2906 | 26 |
| 35 | 5 | 6168 |  | 5995 | 8 | 0173 | 1 | 9827 | 25 |
| 36 | 5 | 8586 |  | 5335 | 8 | 3251 | 1 | 6749 | 24 |
| 37 | 6 | 1001 |  | 4674 | 8 | 6327 | 1 | 3673 | 23 |
| 38 | 6 | 3415 |  | 4013 | 8 | 9402 | 1 | 0598 | 22 |
| 39 | 6 | 5828 |  | 3352 | 9 | 2476 |  | 7524 | 21 |
| 40 | 6 | 8238 |  | 2689 | 9 | 5549 | 0 | 4451 | 20 |
| 41 | 7 | 0647 |  | 2027 | 9 | 8620 | 0 | 1380 | 19 |
| 42 | 7 | 3054 |  | 1364 | 9720 | 1690 | 10279 | 8310 | 18 |
| 43 | 7 | 5459 |  | 0700 | 0 | 4759 | 9 | 5241 | 17 |
| 44 | 7 | 7863 |  | 0036 | O | 7827 | 9 | 2173 | 16 |
| 45 | 8 | 0265 | 9946 | 9372 | 1 | 0893 | 8 | 9107 | 15 |
| 46 | 8 | 2665 |  | 8707 | 1 | 3958 | 8 | 6042 | 14 |
| 47 | 8 | 5064 |  | 8042 | 1 | 7022 | 8 | 2978 | 13 |
| 48 | 8 | 7461 |  | 7376 | 2 | 0085 |  | 9915 | 12 |
| 49 | 8 | 9856 |  | 6710 | 2 | 3147 | 7 | 6853 | 11 |
| 50 | 9 | 2250 |  | 6043 | 2 | 6207 | 7 | 3793 | 10 |
| 51 | 9 | 4642 |  | 5376 | 2 | 9266 | 7 | 0734 | 9 |
| 52 | 9 | 7032 |  | 4708 | 3 | 2324 | 6 | 7676 | 8 |
| 53 | 9 | 9420 |  | 4040 | 3 | 5381 |  | 4619 | 7 |
| 54 | 9670 | 1807 |  | 3371 | 3 | 8436 | 6 | 1564 | 6 |
| 55 | 0 | 4192 |  | 2702 | 4 | 1490 | 5 | 8510 | 5 |
| 56 | 0 | 6576 |  | 2032 | 4 | 4543 | 5 | 5457 | 4 |
| 57 | 0 | 8958 |  | 1362 | 4 | 7595 | 5 | 2405 | 3 |
| 58 | 1 | 1338 |  | 0692 | 5 | 0646 |  | 9354 | 2 |
| 59 | 1 | 3716 |  | 0021 |  | 3695 |  | 6305 | 1 |
| 60 | 1 | 6093 | 9945 | 9349 | 5 | 6744 |  | 3256 | 0 |
|  |  |  | Sin. | . 62 |  |  | Tan. | 62 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 28 |  |  |  | Tan. 28 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9671 | 6093 | 9945 | 9349 | 9725 | 6744 | 10274 | 3256 | 60 |
| 1 | 1 | 8468 |  | 8677 | 5 | 9791 | 4 | 0209 | 59 |
| 2 | 2 | 0841 |  | 8005 | 6 | 2837 | 3 | 7163 | 58 |
| 3 | 2 | 3213 |  | 7332 | 6 | 5881 | 3 | 4119 | 57 |
| 4 | 2 | 5583 |  | 6659 | 6 | 8925 | 3 | 1075 | 56 |
| 5 | 2 | 7952 |  | 5985 | 7 | 1967 | 2 | 8033 | 55 |
| 6 | 3 | 0319 |  | 5310 | 7 | 5008 | 2 | 4992 | 54 |
| 7 | 3 | 2684 |  | 4636 | 7 | 8048 | 2 | 1952 | 53 |
| 8 | 3 | 5047 |  | 3960 | 8 | 1087 | 1 | 8913 | 52 |
| 9 | 3 | 7409 |  | 3285 | 8 | 4124 | 1 | 5876 | 51 |
| 10 | 3 | 9769 |  | 2609 | 8 | 7161 | 1 | 2839 | 50 |
| 11 | 4 | 2128 |  | 1932 | 9 | 0196 | 0 | 9804 | 49 |
| 12 | 4 | 4485 |  | 1255 |  | 3230 | 0 | 6770 | 48 |
| 13 | 4 | 6840 |  | 0577 | 9 | 6263 | 0 | 3737 | 47 |
| 14 |  | 9194 | 9944 | 9899 |  | 9295 | 0 | 0705 | 46 |
| 15 | 5 | 1546 |  | 9220 | 9730 | 2325 | 10269 | 7675 | 45 |
| 16 | 5 | 3896 |  | 8541 | 0 | 5354 | 9 | 4646 | 44 |
| 17 | 5 | 6245 |  | 7862 | 0 | 8383 | 9 | 1617 | 43 |
| 18 | 5 | 8592 |  | 7182 | 1 | 1410 | 8 | 8590 | 42 |
| 19 | 6 | 0937 |  | 6501 |  | 4436 | 8 | 5564 | 41 |
| 20 | 6 | 3281 |  | 5821 |  | 7460 | 8 | 2540 | 40 |
| 21 | 6 | 5623 |  | 5139 |  | 0484 | 7 | 9516 | 39 |
| 22 | 6 | 7963 |  | 4457 |  | 3506 | 7 | 6494 | 38 |
| 23 | 7 | 0302 |  | 3775 |  | 6527 | 7 | 3473 | 37 |
| 24 | 7 | 2640 |  | 3092 | 2 | 9547 | 7 | 0453 | 36 |
| 25 | 7 | 4975 |  | 2409 | 3 | 2566 | 6 | 7434 | 35 |
| 26 | 7 | 7309 |  | 1725 |  | 5584 | 6 | 4416 | 34 |
| 27 | 7 | 9642 |  | 1041 |  | 8601 | 6 | 1399 | 33 |
| 28 | 8 | 1972 |  | 0356 |  | 1616 | 5 | 8384 | 32 |
| 29 | 8 | 4301 | 9943 | 9671 | 4 | 4631 | 5 | 5369 | $3^{1}$ |
| 30 | 8 | 6629 |  | 8985 | 4 | 7644 |  | 2356 | 30 |
|  |  |  | Sin. | . 61 |  |  | Tan. | 61 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 28 |  |  |  | Tan. 28 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9678 | 6629 | 9943 | 8985 | 9734 | 7644 | 10265 | 2356 | 30 |
| 31 | 8 | 8955 |  | 8299 | 5 | 0656 | 4 | 9344 | 29 |
| 32 | 9 | 1279 |  | 7612 | 5 | 3667 | 4 | 6333 | 28 |
| 33 | 9 | 3602 |  | 6925 | 5 | 6677 | 4 | 3323 | 27 |
| 34 | 9 | 5923 |  | 6238 | 5 | 9685 | 4 | 0315 | 26 |
| 35 | 9 | 8243 |  | 5549 | 6 | 2693 | 3 | 7307 | 25 |
| 36 | 9680 | 0560 |  | 4861 | 6 | 5699 | 3 | 4301 | 24 |
| 37 | 0 | 2877 |  | 4172 | 6 | 8705 | 3 | 1295 | 23 |
| 38 | 0 | 5191 |  | 3482 | 7 | 1709 | 2 | 8291 | 22 |
| 39 | 0 | 7504 |  | 2792 | 7 | 4712 | 2 | 5288 | 21 |
| 40 | 0 | 9816 |  | 2102 | 7 | 7714 | 2 | 2286 | 20 |
| 41 | 1 | 2126 |  | 1411 | 8 | 0715 | 1 | 9285 | 19 |
| 42 | 1 | 4434 |  | 0720 | 8 | 3714 | 1 | 6286 | 18 |
| 43 | 1 | 6741 |  | 0028 | 8 | 6713 | 1 | 3287 | 17 |
| 44 | 1 | 9046 | 9942 | 9335 | 8 | 9710 | 1 | 0290 | 16 |
| 45 | 2 | 1349 |  | 8643 | 9 | 2707 | 0 | 7293 | 15 |
| 46 | 2 | 3651 |  | 7949 | 9 | 5702 | O | 4298 | 14 |
| 47 | 2 | 5952 |  | 7255 | 9 | 8696 | 0 | 1304 | 13 |
| 48 | 2 | 8250 |  | 6561 | 9740 | 1689 | 10259 | 8311 | 12 |
| 49 | 3 | 0548 |  | 5866 | 0 | 4681 | 9 | 5319 | 11 |
| 50 | 3 | 2843 |  | 5171 | 0 | 7672 | 9 | 2328 | 10 |
| 51 | 3 | 5137 |  | 4476 | 1 | o662 | 8 | 9338 | 9 |
| 52 | 3 | 7430 |  | 3779 | 1 | 3650 | 8 | 6350 | 8 |
| 53 | 3 | 9720 |  | 3083 | 1 | 6638 | 8 | 3362 | 7 |
| 54 | 4 | 2010 |  | 2386 | 1 | 9624 | 8 | 0376 | 6 |
| 55 | 4 | 4297 |  | 1688 | 2 | 2609 | 7 | 7391 | 5 |
| 56 | 4 | 6583 |  | 0990 | 2 | 5594 |  | 4406 | 4 |
| 57 | 4 | 8868 |  | 0291 | 2 | 8577 |  | 1423 | 3 |
| 58 | 5 | 1151 | 9941 | 9592 | 3 | 1559 | 6 | 8441 | 2 |
| 59 | 5 | 3432 |  | 8893 | 3 | 4540 |  | 5460 | 1 |
| 60 | 5 | 5712 |  | 8193 | 3 | 7520 |  | 2480 | 0 |
|  |  |  | Sin. | . 61 |  |  | Tan. | 61 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 29 |  |  |  | Tan. 29 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9685 | 5712 | 9941 | 8193 | 9743 | 7520 | 10256 | 2480 | 60 |
| 1 | 5 | 7991 |  | 7492 | 4 | 0499 | 5 | 9501 | 59 |
| 2 | 6 | 0267 |  | 6791 | 4 | 3476 | 5 | 6524 | 58 |
| 3 | 6 | 2542 |  | 6090 | 4 | 6453 | 5 | 3547 | 57 |
| 4 | 6 | 4816 |  | 5388 | 4 | 9428 | 5 | 0572 | 56 |
| 5 | 6 | 7088 |  | 4685 | 5 | 2403 | 4 | 7597 | 55 |
| 6 | 6 | 9359 |  | 3982 | 5 | 5376 | 4 | 4624 | 54 |
| 7 | 7 | 1628 |  | 3279 | 5 | 8349 | 4 | 1651 | 53 |
| 8 | 7 | 3895 |  | 2575 | 6 | 1320 | 3 | 8680 | 52 |
| 9 | 7 | 6161 |  | 1871 | 6 | 4290 | 3 | 5710 | 51 |
| 10 | 7 | 8425 |  | 1166 |  | 7259 | 3 | 2741 | 50 |
| 11 | 8 | 0688 |  | 0461 | 7 | 0227 | 2 | 9773 | 49 |
| 12 | 8 | 2949 | 9940 | 9755 | 7 | 3194 | 2 | 6806 | 48 |
| 13 | 8 | 5209 |  | 9048 | 7 | 6160 | 2 | 3840 | 47 |
| 14 | 8 | 7467 |  | 8342 | 7 | 9125 | 2 | 0875 | 46 |
| 15 | 8 | 9723 |  | 7634 | 8 | 2089 | 1 | 7911 | 45 |
| 16 | 9 | 1978 |  | 6927 | 8 | 5052 | 1 | 4948 | 44 |
| 17 | 9 | 4232 |  | 6219 | 8 | 8013 | 1 | 1987 | 43 |
| 18 | 9 | 6484 |  | 5510 | 9 | 0974 | 0 | 9026 | 42 |
| 19 |  | 8734 |  | 4801 | 9 | 3934 | 0 | 6066 | 41 |
| 20 | 9690 | o983 |  | 4091 |  | 6892 | 0 | 3108 | 40 |
| 21 | 0 | 3231 |  | 3381 | 9 | 9850 | 0 | 0150 | 39 |
| 22 | 0 | 5476 |  | 2670 | 9750 | 2806 | 10249 | 7194 | 38 |
| 23 | 0 | 7721 |  | 1959 | 0 | 5762 | 9 | 4238 | 37 |
| 24 | 0 | 9964 |  | 1248 | 0 | 8716 | 9 | 1284 | 36 |
| 25 | 1 | 2205 |  | 0535 | 1 | 1669 | 8 | 8331 | 35 |
| 26 | 1 | 4445 | 9939 | 9823 | 1 | 4622 | 8 | 5378 | 34 |
| 27 | 1 | 6683 |  | 9110 | 1 | 7573 | 8 | 2427 | 33 |
| 28 | 1 | 8919 |  | 8396 | 2 | 0523 | 7 | 9477 | 32 |
| 29 | 2 | 1155 |  | 7682 | 2 | 3472 | 7 | 6528 | $3^{1}$ |
| 30 | 2 | 3388 |  | 6968 |  | 6420 |  | 3580 | 30 |
|  |  |  | Sin. | 60 |  |  | Tan. | 60 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 29 |  |  |  | Tan. 29 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9692 | 3388 | 9939 | 6968 | 9752 | 6420 | 10247 | 3580 | 30 |
| 31 | 2 | 5620 |  | 6253 | 2 | 9368 | 7 | 0632 | 29 |
| 32 | 2 | 7851 |  | 5537 | 3 | 2314 | 6 | 7686 | 28 |
| 33 | 3 | 0080 |  | 4821 | 3 | 5259 | 6 | 4741 | 27 |
| 34 | 3 | 2308 |  | 4105 | 3 | 8203 | 6 | 1797 | 26 |
| 35 | 3 | 4534 |  | 3388 | 4 | 1146 | 5 | 8854 | 25 |
| 36 | 3 | 6758 |  | 2671 | 4 | 4088 | 5 | 5912 | 24 |
| 37 | 3 | 8981 |  | 1953 | 4 | 7029 | 5 | 2971 | 23 |
| 38 | 4 | 1203 |  | 1234 | 4 | 9969 | 5 | 0031 | 22 |
| 39 | 4 | 3423 |  | 0515 | 5 | 2908 | 4 | 7092 | 21 |
| 40 | 4 | 5642 | 9938 | 9796 | 5 | 5846 | 4 | 4154 | 20 |
| 41 | 4 | 7859 |  | 9076 | 5 | 8783 | 4 | 1217 | 19 |
| 42 | 5 | 0074 |  | 8356 | 6 | 1718 | 3 | 8282 | 18 |
| 43 | 5 | 2288 |  | 7635 | 6 | 4653 | 3 | 5347 | 17 |
| 44 | 5 | 4501 |  | 6914 | 6 | 7587 | 3 | 2413 | 16 |
| 45 | 5 | 6712 |  | 6192 | 7 | 0520 | 2 | 9480 | 15 |
| 46 | 5 | 8922 |  | 5470 | 7 | 3452 | 2 | 6548 | 14 |
| 47 | 6 | 1130 |  | 4747 | 7 | 6383 | 2 | 3617 | 13 |
| 48 | 6 | 3336 |  | 4024 | 7 | 9313 | 2 | 0687 | 12 |
| 49 | 6 | 5541 |  | 3300 | 8 | 2242 | 1 | 7758 | 11 |
| 50 | 6 | 7745 |  | 2576 | 8 | 5170 | 1 | 4830 | 10 |
| 51 | 6 | 9947 |  | 1851 | 8 | 8096 | 1 | 1904 | 9 |
| 52 | 7 | 2148 |  | 1126 | 9 | 1022 | 0 | 8978 | 8 |
| 53 | 7 | 4347 |  | 0400 | 9 | 3947 | 0 | 6053 | 7 |
| 54 | 7 | 6545 | 9937 | 9674 | 9 | 6871 | 0 | 3129 | 6 |
| 55 | 7 | 8741 |  | 8947 | 9 | 9794 | 0 | 0206 | 5 |
| 56 | 8 | 0936 |  | 8220 | 9760 | 2716 | 10239 | 7284 | 4 |
| 57 | 8 | 3129 |  | 7492 | 0 | 5637 | 9 | 4363 | 3 |
| 58 | 8 | 5321 |  | 6764 | 0 | 8557 | 9 | 1443 | 2 |
| 59 | 8 | 7511 |  | 6035 | 1 | 1476 | 8 | 8524 | 1 |
| 60 | 8 | 9700 |  | 5306 | 1 | 4394 | 8 | 5606 | 0 |
|  |  |  | Sin | 60 |  |  | Tan. | 60 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 30 |  |  |  | Tan. 30 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9698 | 9700 | 9937 | 5306 | 9761 | 4394 | 10238 | 5606 | 60 |
| 1 | 9 | 1887 |  | 4577 | 1 | 7311 | 8 | 2689 | 59 |
| 2 | 9 | 4073 |  | 3847 | 2 | 0227 | 7 | 9773 | 58 |
| 3 | 9 | 6258 |  | 3116 | 2 | 3142 | 7 | 6858 | 57 |
| 4 | 9 | 8441 |  | 2385 | 2 | 6056 | 7 | 3944 | 56 |
| 5 | 9700 | 0622 |  | 1653 | 2 | 8969 | 7 | 1031 | 55 |
| 6 | 0 | 2802 |  | 0921 | 3 | 1881 | 6 | 8119 | 54 |
| 7 | 0 | 4981 |  | 0189 | 3 | 4792 | 6 | 5208 | 53 |
| 8 | 0 | 7158 | 9936 | 9456 | 3 | 7702 | 6 | 2298 | 52 |
| 9 | 0 | 9334 |  | 8722 | 4 | 0612 | 5 | 9388 | 51 |
| 10 | 1 | 1508 |  | 7988 | 4 | 3520 | 5 | 6480 | 50 |
| 11 | 1 | 3681 |  | 7254 | 4 | 6427 | 5 | 3573 | 49 |
| 12 | 1 | 5852 |  | 6519 | 4 | 9334 | 5 | 0666 | 48 |
| 13 | 1 | 8022 |  | 5783 | 5 | 2239 | 4 | 7761 | 47 |
| 14 | 2 | 0190 |  | 5047 | 5 | 5143 | 4 | 4857 | 46 |
| 15 | 2 | 2357 |  | 4311 | 5 | 8047 | 4 | 1953 | 45 |
| 16 | 2 | 4523 |  | 3574 | 6 | 0949 | 3 | 9051 | 44 |
| 17 | 2 | 6687 |  | 2836 | 6 | 3851 | 3 | 6149 | 43 |
| 18 | 2 | 8849 |  | 2098 | 6 | 6751 | 3 | 3249 | 42 |
| 19 | 3 | 1011 |  | 1360 | 6 | 9651 | 3 | 0349 | 41 |
| 20 | 3 | 3170 |  | 0621 | 7 | 2550 | 2 | 7450 | 40 |
| 21 | 3 | 5329 | 9935 | 9881 | 7 | 5448 | 2 | 4552 | 39 |
| 22 | 3 | 7486 |  | 9141 | 7 | 8344 | 2 | 1656 | 38 |
| 23 | 3 | 9641 |  | 8401 | 8 | 1240 | 1 | 8760 | 37 |
| 24 | 4 | 1795 |  | 7660 | 8 | 4135 | 1 | 5865 | 36 |
| 25 | 4 | 3947 |  | 6918 | 8 | 7029 | 1 | 2971 | 35 |
| 26 |  | 6099 |  | 6177 | 8 | 9922 | 1 | 0078 | 34 |
| 27 | 4 | 8248 |  | 5434 | 9 | 2814 | 0 | 7186 | 33 |
| 28 | 5 | 0397 |  | 4691 |  | 5705 | 0 | 4295 | 32 |
| 29 | 5 | 2543 |  | 3948 | 9 | 8596 | 0 | 1404 | $3^{1}$ |
| 30 | 5 | 4689 |  | 3204 | 9770 | 1485 | 10229 | 8515 | 30 |
|  |  |  | Sin. | . 59 |  |  | Tan. | 59 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 30 |  |  |  | Tan. 30 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9705 | 4689 | 9935 | 3204 | 9770 | 1485 | 10229 | 8515 | 30 |
| 31 | 5 | 6833 |  | 2459 | 0 | 4373 | 9 | 5627 | 29 |
| 32 | 5 | 8975 |  | 1715 | 0 | 7261 | 9 | 2739 | 28 |
| 33 | 6 | 1116 |  | o969 | 1 | 0147 | 8 | 9853 | 27 |
| 34 | 6 | 3256 |  | 0223 | 1 | 3033 | 8 | 6967 | 26 |
| 35 | 6 | 5394 | 9934 | 9477 | 1 | 5917 | 8 | 4083 | 25 |
| 36 | 6 | 7531 |  | 8730 | 1 | 8801 | 8 | 1199 | 24 |
| 37 | 6 | 9667 |  | 7983 | 2 | 1684 | 7 | 8316 | 23 |
| 38 | 7 | 1801 |  | 7235 | 2 | 4566 | 7 | 5434 | 22 |
| 39 | 7 | 3933 |  | 6486 | 2 | 7447 | 7 | 2553 | 21 |
| 40 | 7 | 6064 |  | 5738 | 3 | 0327 | 6 | 9673 | 20 |
| 41 | 7 | 8194 |  | 4988 | 3 | 3206 | 6 | 6794 | 19 |
| 42 | 8 | 0323 |  | 4238 | 3 | 6084 | 6 | 3916 | 18 |
| 43 | 8 | 2450 |  | 3488 | 3 | 8961 | 6 | 1039 | 17 |
| 44 | 8 | 4575 |  | 2737 | 4 | 1838 | 5 | 8162 | 16 |
| 45 | 8 | 6699 |  | 1986 | 4 | 4713 | 5 | 5287 | 15 |
| 46 | 8 | 8822 |  | 1234 | 4 | 7588 | 5 | 2412 | 14 |
| 47 | 9 | 0943 |  | 0482 | 5 | 0462 | 4 | 9538 | 13 |
| 48 | 9 | 3063 | 9933 | 9729 | 5 | 3334 | 4 | 6666 | 12 |
| 49 | 9 | 5182 |  | 8976 | 5 | 6206 | 4 | 3794 | 11 |
| 50 | 9 | 7299 |  | 8222 | 5 | 9077 | 4 | 0923 | 10 |
| 51 | 9 | 9415 |  | 7467 |  | 1947 | 3 | 8053 | 9 |
| 52 | 9710 | 1529 |  | 6713 | 6 | 4816 | 3 | 5184 | 8 |
| 53 | 0 | 3642 |  | 5957 | 6 | 7685 | 3 | 2315 | 7 |
| 54 | 0 | 5753 |  | 5201 | 7 | 0552 | 2 | 9448 | 6 |
| 55 | 0 | 7863 |  | 4445 | 7 | 3418 | 2 | 6582 | 5 |
| 56 | 0 | 9972 |  | 3688 | 7 | 6284 | 2 | 3716 | 4 |
| 57 | 1 | 2080 |  | 2931 | 7 | 9149 | 2 | 0851 | 3 |
| 58 | 1 | 4186 |  | 2173 | 8 | 2012 | 1 | 7988 | 2 |
| 59 | 1 | 6290 |  | 1415 | 8 | 4875 | 1 | 5125 | 1 |
| 60 | 1 | 8393 |  | 0656 | 8 | 7737 |  | 2263 | 0 |
|  |  |  | Sin. | . 59 |  |  | Tan. | 59 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 31 |  |  |  | Tan. 31 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9711 | 8393 | 9933 | 0656 | 9778 | 7737 | 10221 | 2263 | 60 |
| 1 | 2 | 0495 | 9932 | 9897 | 9 | 0599 | 0 | 9401 | 59 |
| 2 | 2 | 2596 |  | 9137 | 9 | 3459 | 0 | 6541 | 58 |
| 3 | 2 | 4695 |  | 8376 | 9 | 6318 | 0 | 3682 | 57 |
| 4 | 2 | 6792 |  | 7616 | 9 | 9177 | 0 | 0823 | 56 |
| 5 | 2 | 8889 |  | 6854 | 9780 | 2034 | 10219 | 7966 | 55 |
| 6 | 3 | o983 |  | 6092 | - | 4891 | 9 | 5109 | 54 |
| 7 | 3 | 3077 |  | 5330 |  | 7747 | 9 | 2253 | 53 |
| 8 | 3 | 5169 |  | 4567 |  | 0602 | 8 | 9398 | 52 |
| 9 | 3 | 7260 |  | 3804 |  | 3456 | 8 | 6544 | 51 |
| 10 | 3 | 9349 |  | 3040 | 1 | 6309 | 8 | 3691 | 50 |
| 11 | 4 | 1437 |  | 2276 |  | 9162 | 8 | 0838 | 49 |
| 12 | 4 | 3524 |  | 1511 |  | 2013 | 7 | 7987 | 48 |
| 13 | 4 | 5609 |  | 0746 | 2 | 4864 | 7 | 5136 | 47 |
| 14 |  | 7693 | 9931 | 9980 | 2 | 7713 | 7 | 2287 | 46 |
| 15 | 4 | 9776 |  | 9213 | 3 | 0562 | 6 | 9438 | 45 |
| 16 | 5 | 1857 |  | 8447 |  | 3410 | 6 | 6590 | 44 |
| 17 | 5 | 3937 |  | 7679 | 3 | 6258 | 6 | 3742 | 43 |
| 18 | 5 | 6015 |  | 6911 | 3 | 9104 | 6 | 0896 | 42 |
| 19 | 5 | 8092 |  | 6143 |  | 1949 | 5 | 8051 | 41 |
| 20 | 6 | 0168 |  | 5374 | 4 | 4794 | 5 | 5206 | 40 |
| 21 | 6 | 2243 |  | 4605 | 4 | 7638 | 5 | 2362 | 39 |
| 22 | 6 | 4316 |  | 3835 | 5 | 0481 | 4 | 9519 | 38 |
| 23 | 6 | 6387 |  | 3065 |  | 3323 | 4 | 6677 | 37 |
| 24 | 6 | 8458 |  | 2294 | 5 | 6164 | 4 | 3836 | 36 |
| 25 | 7 | 0526 |  | 1522 |  | 9004 | 4 | 0996 | 35 |
| 26 | 7 | 2594 |  | 0750 |  | 1844 | 3 | 8156 | 34 |
| 27 | 7 | 4660 | 9930 | 9978 | 6 | 4682 | 3 | 5318 | 33 |
| 28 | 7 | 6725 |  | 9205 |  | 7520 | 3 | 2480 | 32 |
| 29 | 7 | 8789 |  | 8432 | 7 | 0357 | 2 | 9643 | $3^{1}$ |
| 30 | 8 | 0851 |  | 7658 |  | 3193 |  | 6807 | 30 |
|  |  |  | Sin. | . $5^{8}$ |  |  | Tan. | 58 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 31 |  |  |  | Tan. 31 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9718 | 0851 | 9930 | 7658 | $97^{87}$ | 3193 | 10212 | 6807 | 30 |
| 31 | 8 | 2912 |  | 6883 | 7 | 6028 | 2 | 3972 | 29 |
| 32 | 8 | 4971 |  | 6109 | 7 | 8863 | 2 | 1137 | 28 |
| 33 | 8 | 7030 |  | 5333 | 8 | 1696 | 1 | 8304 | 27 |
| 34 | 8 | 9086 |  | 4557 | 8 | 4529 |  | 5471 | 26 |
| 35 | 9 | 1142 |  | 3781 | 8 | 7361 |  | 2639 | 25 |
| 36 | 9 | 3196 |  | 3004 | 9 | 0192 | 0 | 9808 | 24 |
| 37 | 9 | 5249 |  | 2226 | 9 | 3023 | 0 | 6977 | 23 |
| 38 | 9 | 7300 |  | 1448 | 9 | 5852 |  | 4148 | 22 |
| 39 | 9 | 9350 |  | 0670 | 9 | 8681 | 0 | 1319 | 21 |
| 40 | 9720 | 1399 | 9929 | 9891 | 9790 | 1508 | 10209 | 8492 | 20 |
| 41 | 0 | 3447 |  | 9112 | 0 | 4335 | 9 | 5665 | 19 |
| 42 | O | 5493 |  | 8332 | 0 | 7161 | 9 | 2839 | 18 |
| 43 | 0 | 7538 |  | 7551 | 0 | 9987 | 9 | 0013 | 17 |
| 44 | 0 | 9581 |  | 6770 | 1 | 2811 | 8 | 7189 | 16 |
| 45 | 1 | 1623 |  | 5989 | 1 | 5635 | 8 | 4365 | 15 |
| 46 | 1 | 3664 |  | 5207 | 1 | 8458 | 8 | 1542 | 14 |
| 47 | 1 | 5704 |  | 4424 | 2 | 1280 | 7 | 8720 | 13 |
| 48 | 1 | 7742 |  | 3641 | 2 | 4101 |  | 5899 | 12 |
| 49 | 1 | 9779 |  | 2857 | 2 | 6921 | 7 | 3079 | 11 |
| 50 | 2 | 1814 |  | 2073 | 2 | 9741 | 7 | 0259 | 10 |
| 51 | 2 | 3848 |  | 1289 | 3 | 2560 | 6 | 7440 | 9 |
| 52 | 2 | 5881 |  | 0504 | 3 | 5378 |  | 4622 | 8 |
| 53 | 2 | 7913 | 9928 | 9718 | 3 | 8195 | 6 | 1805 | 7 |
| 54 | 2 | 9943 |  | 8932 | 4 | 1011 | 5 | 8989 | 6 |
| 55 | 3 | 1972 |  | 8145 | 4 | 3827 | 5 | 6173 | 5 |
| 56 | 3 | 4000 |  | 7358 | 1 | 6641 |  | 3359 | 4 |
| 57 | 3 | 6026 |  | 6571 | 4 | 9455 | 5 | 0545 | 3 |
| 58 | 3 | 8051 |  | 5783 | 5 | 2268 |  | 7732 | 2 |
| 59 | 4 | 0075 |  | 4994 | 5 | 5081 |  | 4919 | 1 |
| 60 | 4 | 2097 |  | 4205 | 5 | 7892 | 4 | 2108 | 0 |
|  |  |  | Sin | . 58 |  |  | Tan | 58 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 32 |  |  |  | Tan. 32 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9724 | 2097 | 9928 | 4205 | 9795 | 7892 | 10204 | 2108 | 60 |
| 1 | 4 | 4118 |  | 3415 | 6 | 0703 | 3 | 9297 | 59 |
| 2 | 4 | 6138 |  | 2625 | 6 | 3513 | 3 | 6487 | 58 |
| 3 | 4 | 8156 |  | 1834 | 6 | 6322 | 3 | 3678 | 57 |
| 4 | 5 | 0174 |  | 1043 | 6 | 9130 | 3 | 0870 | 56 |
| 5 | 5 | 2189 |  | 0251 | 7 | 1938 | 2 | 8062 | 55 |
| 6 | 5 | 4204 | 9927 | 9459 | 7 | 4745 | 2 | 5255 | 54 |
| 7 | 5 | 6217 |  | 8666 | 7 | 7551 | 2 | 2449 | 53 |
| 8 | 5 | 8229 |  | 7873 | 8 | 0356 | 1 | 9644 | 52 |
| 9 | 6 | 0240 |  | 7079 | 8 | 3160 | 1 | 6840 | 51 |
| 10 | 6 | 2249 |  | 6285 | 8 | 5964 | 1 | 4036 | 50 |
| 11 | 6 | 4257 |  | 5490 | 8 | 8767 | 1 | 1233 | 49 |
| 12 | 6 | 6264 |  | 4695 | 9 | 1569 | 0 | 8431 | 48 |
| 13 | 6 | 8269 |  | 3899 | 9 | 4370 | 0 | 5630 | 47 |
| 14 | 7 | 0273 |  | 3103 | 9 | 7170 | 0 | 2830 | 46 |
| 15 | 7 | 2276 |  | 2306 | 9 | 9970 | 0 | 0030 | 45 |
| 16 | 7 | 4278 |  | 1509 | 9800 | 2769 | 10199 | 7231 | 44 |
| 17 | 7 | 6278 |  | 0711 |  | 5567 | 9 | 4433 | 43 |
| 18 | 7 | 8277 | 9926 | 9913 | 0 | 8365 | 9 | 1635 | 42 |
| 19 | 8 | 0275 |  | 9114 | 1 | 1161 | 8 | 8839 | 41 |
| 20 | 8 | 2271 |  | 8314 | 1 | 3957 | 8 | 6043 | 40 |
| 21 | 8 | 4267 |  | 7514 |  | 6752 | 8 | 3248 | 39 |
| 22 | 8 | 6260 |  | 6714 | 1 | 9546 | 8 | 0454 | 38 |
| 23 | 8 | 8253 |  | 5913 | 2 | 2340 | 7 | 7660 | 37 |
| 24 | 9 | 0244 |  | 5112 | 2 | 5133 | 7 | 4867 | 36 |
| 25 | 9 | 2234 |  | 4310 | 2 | 7925 | 7 | 2075 | 35 |
| 26 | 9 | 4223 |  | 3507 | 3 | 0716 |  | 9284 | 34 |
| 27 | 9 | 6211 |  | 2704 | 3 | 3506 |  | 6494 | 33 |
| 28 | 9 | 8197 |  | 1901 | 3 | 6296 | 6 | 3704 | 32 |
| 29 | 9730 | 0182 |  | 1096 | 3 | 9085 |  | 0915 | 31 |
| 30 |  | 2165 |  | 0292 |  | 1873 |  | 8127 | 30 |
|  |  |  | Sin. | . 57 |  |  | Tan. | 57 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 32 |  |  |  | Tan. 32 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9730 | 2165 | 9926 | 0292 | 9804 | 1873 | 10195 | 8127 | 30 |
| 31 | 0 | 4148 | 9925 | 9487 | 4 | 4661 | 5 | 5339 | 29 |
| 32 | 0 | 6129 |  | 8681 | 4 | 7447 | 5 | 2553 | 28 |
| 33 | 0 | 8109 |  | 7875 | 5 | 0233 | 4 | 9767 | 27 |
| 34 | 1 | 0087 |  | 7069 | 5 | 3019 | 4 | 6981 | 26 |
| 35 | 1 | 2064 |  | 6261 | 5 | 5803 | 4 | 4197 | 25 |
| 36 | 1 | 4040 |  | 5454 | 5 | 8587 | 4 | 1413 | 24 |
| 37 | 1 | 6015 |  | 4646 | 6 | 1370 | 3 | 8630 | 23 |
| 38 | 1 | 7989 |  | 3837 | 6 | 4152 | 3 | 5848 | 22 |
| 39 | 1 | 9961 |  | 3028 | 6 | 6933 | 3 | 3067 | 21 |
| 40 | 2 | 1932 |  | 2218 | 6 | 9714 | 3 | 0286 | 20 |
| 41 | 2 | 3902 |  | 1408 | 7 | 2494 | 2 | 7506 | 19 |
| 42 | 2 | 5870 |  | 0597 | 7 | 5273 | 2 | 4727 | 18 |
| 43 | 2 | 7837 | 9924 | 9786 | 7 | 8052 | 2 | 1948 | 17 |
| 44 | 2 | 9803 |  | 8974 | 8 | 0829 | 1 | 9171 | 16 |
| 45 | 3 | 1768 |  | 8161 | 8 | 3606 | 1 | 6394 | 15 |
| 46 | 3 | 3731 |  | 7349 | 8 | 6383 | 1 | 3617 | 14 |
| 47 | 3 | 5693 |  | 6535 | 8 | 9158 | 1 | 0842 | 13 |
| 48 | 3 | 7654 |  | 5721 | 9 | 1933 | 0 | 8067 | 12 |
| 49 | 3 | 9614 |  | 4907 | 9 | 4707 | 0 | 5293 | 11 |
| 50 | 4 | 1572 |  | 4092 | 9 | 7480 | 0 | 2520 | 10 |
| 51 | 4 | 3529 |  | 3277 | 9810 | 0253 | 10189 | 9747 | 9 |
| 52 | 4 | 5485 |  | 2461 | 0 | 3025 | 9 | 6975 | 8 |
| 53 | 4 | 7440 |  | 1644 | 0 | 5796 | 9 | 4204 | 7 |
| 54 | 4 | 9393 |  | 0827 | 0 | 8566 | 9 | 1434 | 6 |
| 55 | 5 | 1345 |  | 0010 | 1 | 1336 | 8 | 8664 | 5 |
| 56 | 5 | 3296 | 9923 | 9191 | 1 | 4105 | 8 | 5895 | 4 |
| 57 | 5 | 5246 |  | 8373 | 1 | 6873 | 8 | 3127 | 3 |
| 58 | 5 | 7195 |  | 7554 | 1 | 9641 | 8 | 0359 | 2 |
| 59 | 5 | 9142 |  | 6734 | 2 | 2408 |  | 7592 | 1 |
| 60 | 6 | 1088 |  | 5914 | 2 | 5174 |  | 4826 | 0 |
|  |  |  | Sin. | . 57 |  |  | Tan. | 57 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 33 |  |  |  | Tan. 33 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9736 | 1088 | 9923 | 5914 | 9812 | 5174 | 10187 | 4826 | 60 |
| 1 | 6 | 3032 |  | 5093 | 2 | 7939 | 7 | 2061 | 59 |
| 2 | 6 | 4976 |  | 4272 | 3 | 0704 | 6 | 9296 | 58 |
| 3 | 6 | 6918 |  | 3450 | 3 | 3468 | 6 | 6532 | 57 |
| 4 | 6 | 8859 |  | 2628 | 3 | 6231 | 6 | 3769 | 56 |
| 5 | 7 | 0799 |  | 1805 | 3 | 8993 | 6 | 1007 | 55 |
| 6 | 7 | 2737 |  | 0982 | 4 | 1755 | 5 | 8245 | 54 |
| 7 | 7 | 4675 |  | 0158 | 4 | 4516 | 5 | 5484 | 53 |
| 8 | 7 | 6611 | 9922 | 9334 | 4 | 7277 | 5 | 2723 | 52 |
| 9 | 7 | 8546 |  | 8509 | 5 | 0036 | 4 | 9964 | 51 |
| 10 | 8 | 0479 |  | 7684 | 5 | 2795 | 4 | 7205 | 50 |
| 11 | 8 | 2412 |  | 6858 | 5 | 5554 | 4 | 4446 | 49 |
| 12 | 8 | 4343 |  | 6032 | 5 | 8311 | 4 | 1689 | 48 |
| 13 | 8 | 6273 |  | 5205 | 6 | 1068 | 3 | 8932 | 47 |
| 14 | 8 | 8201 |  | 4377 |  | 3824 | 3 | 6176 | 46 |
| 15 | 9 | 0129 |  | 3549 | 6 | 6580 | 3 | 3420 | 45 |
| 16 | 9 | 2055 |  | 2721 | 6 | 9335 | 3 | 0665 | 44 |
| 17 | 9 | 3980 |  | 1891 | 7 | 2089 | 2 | 7911 | 43 |
| 18 | 9 | 5904 |  | 1062 | 7 | 4842 | 2 | 5158 | 42 |
| 19 | 9 | 7827 |  | 0232 |  | 7595 | 2 | 2405 | 41 |
| 20 | 9 | 9748 | 9921 | 9401 | 8 | 0347 |  | 9653 | 40 |
| 21 | 9740 | 1668 |  | 8570 | 8 | 3098 |  | 6902 | 39 |
| 22 | 0 | 3587 |  | 7738 | 8 | 5849 | 1 | 4151 | 38 |
| 23 | 0 | 5505 |  | 6906 | 8 | 8599 | 1 | 1401 | 37 |
| 24 | 0 | 7421 |  | 6073 | 9 | 1348 | 0 | 8652 | 36 |
| 25 | 0 | 9337 |  | 5240 |  | 4096 | 0 | 5904 | 35 |
| 26 | 1 | 1251 |  | 4406 | 9 | 6844 |  | 3156 | 34 |
| 27 | 1 | 3164 |  | 3572 |  | 9592 | 0 | 0408 | 33 |
| 28 | 1 | 5075 |  | 2737 | 9820 | 2338 | 10179 | 7662 | 32 |
| 29 | 1 | 6986 |  | 1902 | 0 | 5084 | 9 | 4916 | $3^{1}$ |
| 30 | 1 | 8895 |  | 1066 | 0 | 7829 |  | 2171 | 30 |
|  |  |  | Sin. | . 56 |  |  | Tan. | 56 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 33 |  |  |  | Tan. 33 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9741 | 8895 | 9921 | 1066 | 9820 | 7829 | 10179 | 2171 | 30 |
| 31 | 2 | 0803 |  | 0229 | 1 | 0574 | 8 | 9426 | 29 |
| 32 | 2 | 2710 | 9920 | 9393 |  | 3317 | 8 | 6683 | 28 |
| 33 | 2 | 4616 |  | 8555 | 1 | 6060 | 8 | 3940 | 27 |
| 34 | 2 | 6520 |  | 7717 | 1 | 8803 | 8 | 1197 | 26 |
| 35 | 2 | 8423 |  | 6878 | 2 | 1545 | 7 | 8455 | 25 |
| 36 | 3 | 0325 |  | 6039 | 2 | 4286 | 7 | 5714 | 24 |
| 37 | 3 | 2226 |  | 5200 | 2 | 7026 | 7 | 2974 | 23 |
| 38 | 3 | 4126 |  | 4360 | 2 | 9766 | 7 | 0234 | 22 |
| 39 | 3 | 6024 |  | 3519 | 3 | 2505 | 6 | 7495 | 21 |
| 40 | 3 | 7921 |  | 2678 | 3 | 5244 | 6 | 4756 | 20 |
| 41 | 3 | 9817 |  | 1836 | 3 | 7981 | 6 | 2019 | 19 |
| 42 | 4 | 1712 |  | 0994 | 4 | 0719 | 5 | 9281 | 18 |
| 43 | 4 | 3606 |  | 0151 | 4 | 3455 | 5 | 6545 | 17 |
| 44 | 4 | 5498 | 9919 | 9308 | 4 | 6191 | 5 | 3809 | 16 |
| 45 | 4 | 7390 |  | 8464 | 4 | 8926 | 5 | 1074 | 15 |
| 46 | 4 | 9280 |  | 7619 | 5 | 1660 | 4 | 8340 | 14 |
| 47 | 5 | 1169 |  | 6775 | 5 | 4394 | 4 | 5606 | 13 |
| 48 | 5 | 3056 |  | 5929 | 5 | 7127 | 4 | 2873 | 12 |
| 49 | 5 | 4943 |  | 5083 | 5 | 9860 | 4 | 0140 | 11 |
| 50 | 5 | 6828 |  | 4237 | 6 | 2592 | 3 | 7408 | 10 |
| 51 | 5 | 8712 |  | 3390 | 6 | 5323 | 3 | 4677 | 9 |
| 52 | 6 | 0595 |  | 2542 | 6 | 8053 | 3 | 1947 | 8 |
| 53 | 6 | 2477 |  | 1694 | 7 | 0783 | 2 | 9217 | 7 |
| 54 | 6 | 4358 |  | 0845 | 7 | 3513 | 2 | 6487 | 6 |
| 55 | 6 | 6237 | 9918 | 9996 | 7 | 6241 | 2 | 3759 | 5 |
| 56 | 6 | 8115 |  | 9146 | 7 | 8969 | 2 | 1031 | 4 |
| 57 | 6 | 9992 |  | 8296 | 8 | 1696 | 1 | 8304 | 3 |
| 58 | 7 | 1868 |  | 7445 | 8 | 4423 | 1 | 5577 | 2 |
| 59 | 7 | 3743 |  | 6594 | 8 | 7149 | 1 | 2851 | 1 |
| 60 | 7 | 5617 |  | 5742 | 8 | 9874 | 1 | 0126 | 0 |
|  |  |  | Sin. | . 56 |  |  | Tan. | 56 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 34 |  |  |  | Tan. 34 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9747 | 5617 | 9918 | 5742 | 9828 | 9874 | 10171 | 0126 | 60 |
| 1 | 7 | 7489 |  | 4890 | 9 | 2599 | 0 | 7401 | 59 |
| 2 | 7 | 9360 |  | 4037 | 9 | 5323 | 0 | 4677 | 58 |
| 3 | 8 | 1230 |  | 3183 | 9 | 8047 | 0 | 1953 | 57 |
| 4 | 8 | 3099 |  | 2329 | 9830 | 0769 | 10169 | 9231 | 56 |
| 5 | 8 | 4967 |  | 1475 | 0 | 3492 | 9 | 6508 | 55 |
| 6 | 8 | 6833 |  | 0620 | 0 | 6213 | 9 | 3787 | 54 |
| 7 | 8 | 8698 | 9917 | 9764 | 0 | 8934 | 9 | 1066 | 53 |
| 8 | 9 | 0562 |  | 8908 | 1 | 1654 | 8 | 8346 | 52 |
| 9 | 9 | 2425 |  | 8051 | 1 | 4374 | 8 | 5626 | 51 |
| 10 | 9 | 4287 |  | 7194 | 1 | 7093 | 8 | 2907 | 50 |
| 11 | 9 | 6148 |  | 6336 | 1 | 9811 | 8 | 0189 | 49 |
| 12 | 9 | 8007 |  | 5478 | 2 | 2529 | 7 | 7471 | 48 |
| 13 | 9 | 9866 |  | 4619 | 2 | 5246 | 7 | 4754 | 47 |
| 14 | 9750 | 1723 |  | 3760 | 2 | 7963 | 7 | 2037 | 46 |
| 15 | 0 | 3579 |  | 2900 | 3 | o679 | 6 | 9321 | 45 |
| 16 | 0 | 5434 |  | 2040 |  | 3394 | 6 | 6606 | 44 |
| 17 | 0 | 7287 |  | 1179 | 3 | 6109 | 6 | 3891 | 43 |
| 18 | 0 | 9140 |  | 0317 | 3 | 8823 | 6 | 1177 | 42 |
| 19 | 1 | 0991 | 9916 | 9455 | 4 | 1536 | 5 | 8464 | 41 |
| 20 | 1 | 2842 |  | 8593 | 4 | 4249 | 5 | 5751 | 40 |
| 21 | 1 | 4691 |  | 7730 |  | 6961 | 5 | 3039 | 39 |
| 22 | 1 | 6538 |  | 6866 | 4 | 9673 | 5 | 0327 | $3^{8}$ |
| 23 | 1 | 8385 |  | 6002 | 5 | 2384 | 4 | 7616 | 37 |
| 24 | 2 | 0231 |  | 5137 | 5 | 5094 | 4 | 4906 | 36 |
| 25 | 2 | 2075 |  | 4272 |  | 7804 | 4 | 2196 | 35 |
| 26 | 2 | 3919 |  | 3406 |  | 0513 | 3 | 9487 | 34 |
| 27 | 2 | 5761 |  | 2539 | 6 | 3221 | 3 | 6779 | 33 |
| 28 | 2 | 7602 |  | 1673 | 6 | 5929 | 3 | 4071 | 32 |
| 29 | 2 | 9442 |  | 0805 | 6 | 8636 | 3 | 1364 | 31 |
| 30 | 3 | 1280 | 9915 | 9937 |  | 1343 | 2 | 8657 | 30 |
|  |  |  | Sin. | . 55 |  |  | Tan. | 55 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 34 |  |  |  | Tan. 34 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9753 | 1280 | 9915 | 9937 | 9837 | 1343 | 10162 | 8657 | 30 |
| 31 | 3 | 3118 |  | 9069 | 7 | 4049 | 2 | 5951 | 29 |
| 32 | 3 | 4954 |  | 8200 | 7 | 6755 | 2 | 3245 | 28 |
| 33 | 3 | 6790 |  | 7330 | 7 | 9460 | 2 | 0540 | 27 |
| 34 | 3 | 8624 |  | 6460 | 8 | 2164 | 1 | 7836 | 26 |
| 35 | 4 | 0457 |  | 5589 | 8 | 4867 | 1 | 5133 | 25 |
| 36 | 4 | 2288 |  | 4718 | 8 | 7571 |  | 2429 | 24 |
| 37 | 4 | 4119 |  | 3846 | 9 | 0273 | 0 | 9727 | 23 |
| 38 | 4 | 5949 |  | 2974 | 9 | 2975 | 0 | 7025 | 22 |
| 39 | 4 | 7777 |  | 2101 | 9 | 5676 | 0 | 4324 | 21 |
| 40 | 4 | 9604 |  | 1228 | 9 | 8377 | O | 1623 | 20 |
| 41 | 5 | 1431 |  | 0354 | 9840 | 1077 | 10159 | 8923 | 19 |
| 42 | 5 | 3256 | 9914 | 9479 | 0 | 3776 | 9 | 6224 | 18 |
| 43 | 5 | 5080 |  | 8604 | 0 | 6475 | 9 | 3525 | 17 |
| 44 | 5 | 6902 |  | 7729 | 0 | 9174 | 9 | 0826 | 16 |
| 45 | 5 | 8724 |  | 6852 | 1 | 1871 | 8 | 8129 | 15 |
| 46 | 6 | 0544 |  | 5976 | 1 | 4569 | 8 | 5431 | 14 |
| 47 | 6 | 2364 |  | 5099 | 1 | 7265 | 8 | 2735 | 13 |
| 48 | 6 | 4182 |  | 4221 | 1 | 9961 | 8 | 0039 | 12 |
| 49 | 6 | 5999 |  | 3342 | 2 | 2657 | 7 | 7343 | 11 |
| 50 | 6 | 7815 |  | 2464 | 2 | 5351 | 7 | 4649 | 10 |
| 51 | 6 | 9630 |  | 1584 | 2 | 8046 | 7 | 1954 | 9 |
| 52 | 7 | 1444 |  | 0704 | 3 | 0739 | 6 | 9261 | 8 |
| 53 | 7 | 3256 | 9913 | 9824 | 3 | 3432 | 6 | 6568 | 7 |
| 54 | 7 | 5068 |  | 8943 | 3 | 6125 | 6 | 3875 | 6 |
| 55 | 7 | 6878 |  | 8061 | 3 | 8817 | 6 | 1183 | 5 |
| 56 | 7 | 8687 |  | 7179 | 4 | 1508 | 5 | 8492 | 4 |
| 57 | 8 | 0495 |  | 6296 | 4 | 4199 | 5 | 5801 | 3 |
| 58 | 8 | 2302 |  | 5413 | 4 | 6889 | 5 | 3111 | 2 |
| 59 | 8 | 4108 |  | 4530 | 4 | 9579 | 5 | 0421 | 1 |
| 60 | 8 | 5913 |  | 3645 | 5 | 2268 | 4 | 7732 | 0 |
|  |  |  | Sin. | . 55 |  |  | Tan | 55 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 35 |  |  |  | Tan. 35 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9758 | 5913 | 9913 | 3645 | 9845 | 2268 | 10154 | 7732 | 60 |
| 1 | 8 | 7717 |  | 2760 | 5 | 4956 | 4 | 5044 | 59 |
| 2 | 8 | 9519 |  | 1875 | 5 | 7644 | 4 | 2356 | 58 |
| 3 | 9 | 1321 |  | 0989 | 6 | 0332 | 3 | 9668 | 57 |
| 4 | 9 | 3121 |  | 0102 | 6 | 3018 | 3 | 6982 | 56 |
| 5 | 9 | 4920 | 9912 | 9215 | 6 | 5705 | 3 | 4295 | 55 |
| 6 | 9 | 6718 |  | 8328 | 6 | 8390 | 3 | 1610 | 54 |
| 7 | 9 | 8515 |  | 7440 | 7 | 1075 | 2 | 8925 | 53 |
| 8 | 9760 | 0311 |  | 6551 | 7 | 3760 | 2 | 6240 | 52 |
| 9 | 0 | 2106 |  | 5662 | 7 | 6444 | 2 | 3556 | 51 |
| 10 | 0 | 3899 |  | 4772 | 7 | 9127 | 2 | 0873 | 50 |
| 11 | 0 | 5692 |  | 3882 | 8 | 1810 | 1 | 8190 | 49 |
| 12 | 0 | 7483 |  | 2991 | 8 | 4492 | 1 | 5508 | 48 |
| 13 | 0 | 9274 |  | 2099 | 8 | 7174 | 1 | 2826 | 47 |
| 14 | 1 | 1063 |  | 1207 | 8 | 9855 | 1 | 0145 | 46 |
| 15 | 1 | 2851 |  | 0315 | 9 | 2536 | 0 | 7464 | 45 |
| 16 | 1 | 4638 | 9911 | 9422 | 9 | 5216 | 0 | 4784 | 44 |
| 17 | 1 | 6424 |  | 8528 |  | 7896 | 0 | 2104 | 43 |
| 18 | 1 | 8208 |  | 7634 | 9850 | 0575 | 10149 | 9425 | 42 |
| 19 | 1 | 9992 |  | 6739 | 0 | 3253 | 9 | 6747 | 41 |
| 20 | 2 | 1775 |  | 5844 | 0 | 5931 | 9 | 4069 | 40 |
| 21 | 2 | 3556 |  | 4948 | 0 | 8608 | 9 | 1392 | 39 |
| 22 | 2 | 5337 |  | 4051 | 1 | 1285 | 8 | 8715 | 38 |
| 23 | 2 | 7116 |  | 3155 | 1 | 3961 | 8 | 6039 | 37 |
| 24 | 2 | 8894 |  | 2257 | 1 | 6637 | 8 | 3363 | 36 |
| 25 | 3 | 0671 |  | 1359 | 1 | 9312 | 8 | 0688 | 35 |
| 26 | 3 | 2447 |  | 0460 | 2 | 1987 | 7 | 8013 | 34 |
| 27 | 3 | 4222 | 9910 | 9561 | 2 | 4661 | 7 | 5339 | 33 |
| 28 | 3 | 5996 |  | 8661 | 2 | 7335 | 7 | 2665 | 32 |
| 29 | 3 | 7769 |  | 7761 | 3 | 0008 | 6 | 9992 | 31 |
| 30 | 3 | 9540 |  | 6860 |  | 2680 | 6 | 7320 | 30 |
|  |  |  | Sin. | . 54 |  |  | Tan. | 54 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 35 |  |  |  | Tan. 35 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9763 | 9540 | 9910 | 6860 | 9853 | 2680 | 10146 | 7320 | 30 |
| 31 | 4 | 1311 |  | 5959 | 3 | 5352 | 6 | 4648 | 29 |
| 32 | 4 | 3080 |  | 5057 | 3 | 8023 | 6 | 1977 | 28 |
| 33 | 4 | 4849 |  | 4155 | 4 | o694 | 5 | 9306 | 27 |
| 34 | 4 | 6616 |  | 3251 | 4 | 3365 | 5 | 6635 | 26 |
| 35 | 4 | 8382 |  | 2348 | 4 | 6034 | 5 | 3966 | 25 |
| 36 | 5 | 0147 |  | 1444 | 4 | 8704 | 5 | 1296 | 24 |
| 37 | 5 | 1911 |  | 0539 | 5 | 1372 | 4 | 8628 | 23 |
| 38 | 5 | 3674 | 9909 | 9634 | 5 | 4041 | 4 | 5959 | 22 |
| 39 | 5 | 5436 |  | 8728 | 5 | 6708 | 4 | 3292 | 21 |
| 40 | 5 | 7197 |  | 7821 |  | 9376 | 4 | o624 | 20 |
| 41 | 5 | 8957 |  | 6915 | 6 | 2042 | 3 | 7958 | 19 |
| 42 | 6 | 0715 |  | 6007 | 6 | 4708 | 3 | 5292 | 18 |
| 43 | 6 | 2473 |  | 5099 | 6 | 7374 | 3 | 2626 | 17 |
| 44 | 6 | 4229 |  | 4190 | 7 | 0039 | 2 | 9961 | 16 |
| 45 | 6 | 5985 |  | 3281 | 7 | 2704 | 2 | 7296 | 15 |
| 46 | 6 | 7739 |  | 2371 |  | 5368 | 2 | 4632 | 14 |
| 47 | 6 | 9492 |  | 1461 | 7 | 8031 | 2 | 1969 | 13 |
| 48 | 7 | 1244 |  | 0550 | 8 | o694 | 1 | 9306 | 12 |
| 49 | 7 | 2996 | 9908 | 9639 | 8 | 3357 | 1 | 6643 | 11 |
| 50 | 7 | 4746 |  | 8727 | 8 | 6019 | 1 | 3981 | 10 |
| 51 | 7 | 6494 |  | 7814 | 8 | 8680 | 1 | 1320 | 9 |
| 52 | 7 | 8242 |  | 6901 | 9 | 1341 |  | 8659 | 8 |
| 53 | 7 | 9989 |  | 5988 | 9 | 4002 |  | 5998 | 7 |
| 54 | 8 | 1735 |  | 5073 | 9 | 6661 | 0 | 3339 | 6 |
| 55 | 8 | 3480 |  | 4159 | 9 | 9321 | 0 | o679 | 5 |
| 56 | 8 | 5223 |  | 3243 | 9860 | 1980 | 10139 | 8020 | 4 |
| 57 | 8 | 6966 |  | 2327 | - | 4638 | 9 | 5362 | 3 |
| 58 | 8 | 8707 |  | 1411 | - | 7296 | y | 2704 | 2 |
| 59 | 9 | 0448 |  | 0494 | 0 | 9954 | 9 | 0046 | 1 |
| 60 | 9 | 2187 | 9907 | 9576 | 1 | 2610 | 8 | 7390 | 0 |
|  |  |  | Sin. | . 54 |  |  | Tan. | 54 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. $3^{6}$ |  |  |  | Tan. $3^{6}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9769 | 2187 | 9907 | 9576 | 9861 | 2610 | 10138 | 7390 | 60 |
| 1 | 9 | 3925 |  | 8658 | 1 | 5267 | 8 | 4733 | 59 |
| 2 | 9 | 5662 |  | 7740 | 1 | 7923 | 8 | 2077 | 58 |
| 3 | 9 | 7398 |  | 6820 | 2 | 0578 | 7 | 9422 | 57 |
| 4 | 9 | 9134 |  | 5901 | 2 | 3233 | 7 | 6767 | 56 |
| 5 | 9770 | 0868 |  | 4980 | 2 | 5887 | 7 | 4113 | 55 |
| 6 | 0 | 2601 |  | 4059 | 2 | 8541 | 7 | 1459 | 54 |
| 7 | 0 | 4332 |  | 3138 | 3 | 1195 | 6 | 8805 | 53 |
| 8 | 0 | 6063 |  | 2216 | 3 | 3848 | 6 | 6152 | 52 |
| 9 | 0 | 7793 |  | 1293 | 3 | 6500 | 6 | 3500 | 51 |
| 10 | 0 | 9522 |  | 0370 | 3 | 9152 | 6 | 0848 | 50 |
| 11 | 1 | 1249 | 9906 | 9446 | 4 | 1803 | 5 | 8197 | 49 |
| 12 | 1 | 2976 |  | 8522 | 4 | 4454 | 5 | 5546 | 48 |
| 13 | 1 | 4702 |  | 7597 | 4 | 7105 | 5 | 2895 | 47 |
| 14 | 1 | 6426 |  | 6671 | 4 | 9755 | 5 | 0245 | 46 |
| 15 | 1 | 8150 |  | 5745 | 5 | 2404 | 4 | 7596 | 45 |
| 16 | 1 | 9872 |  | 4819 | 5 | 5053 | 4 | 4947 | 44 |
| 17 | 2 | 1593 |  | 3892 | 5 | 7702 |  | 2298 | 43 |
| 18 | 2 | 3314 |  | 2964 | 6 | 0350 | 3 | 9650 | 42 |
| 19 | 2 | 5033 |  | 2036 | 6 | 2997 | 3 | 7003 | 41 |
| 20 | 2 | 6751 |  | 1107 | 6 | 5644 | 3 | 4356 | 40 |
| 21 | 2 | 8468 |  | 0177 | 6 | 8291 | 3 | 1709 | 39 |
| 22 | 3 | 0185 | 9905 | 9247 | 7 | 0937 | 2 | 9063 | 38 |
| 23 | 3 | 1900 |  | 8317 | 7 | 3583 | 2 | 6417 | 37 |
| 24 | 3 | 3614 |  | 7386 | 7 | 6228 | 2 | 3772 | 36 |
| 25 | 3 | 5327 |  | 6454 |  | 8873 | 2 | 1127 | 35 |
| 26 | 3 | 7039 |  | 5522 | 8 | 1517 | 1 | 8483 | 34 |
| 27 | 3 | 8749 |  | 4589 | 8 | 4160 | 1 | 5840 | 33 |
| 28 | 4 | 0459 |  | 3656 | 8 | 6804 | 1 | 3196 | 32 |
| 29 | 4 | 2168 |  | 2722 | 8 | 9446 | 1 | 0554 | 31 |
| 30 | 4 | 3876 |  | 1787 |  | 2089 | 0 | 7911 | 30 |
|  |  |  | Sin. | . 53 |  |  | Tan. | 53 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. $3^{6}$ |  |  |  | Tan. 36 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9774 | 3876 | 9905 | 1787 | 9869 | 2089 | 10130 | 7911 | 30 |
| 31 | 4 | 5583 |  | 0852 | 9 | 4731 | 0 | 5269 | 29 |
| 32 | 4 | 7288 | 9904 | 9916 | 9 | 7372 | 0 | 2628 | 28 |
| 33 | 4 | 8993 |  | 8980 | 9870 | 0013 | 10129 | 9987 | 27 |
| 34 | 5 | 0697 |  | 8043 | 0 | 2653 | 9 | 7347 | 26 |
| 35 | 5 | 2399 |  | 7106 | 0 | 5293 | 9 | 4707 | 25 |
| 36 | 5 | 4101 |  | 6168 | 0 | 7933 | 9 | 2067 | 24 |
| 37 | 5 | 5801 |  | 5230 | 1 | 0572 | 8 | 9428 | 23 |
| 38 | 5 | 7501 |  | 4291 | 1 | 3210 | 8 | 6790 | 22 |
| 39 | 5 | 9199 |  | 3351 | 1 | 5848 | 8 | 4152 | 21 |
| 40 | 6 | 0897 |  | 2411 | 1 | 8486 | 8 | 1514 | 20 |
| 41 | 6 | 2593 |  | 1470 | 2 | 1123 | 7 | 8877 | 19 |
| 42 | 6 | 4289 |  | 0529 | 2 | 3760 | 7 | 6240 | 18 |
| 43 | 6 | 5983 | 9903 | 9587 | 2 | 6396 |  | 3604 | 17 |
| 44 | 6 | 7676 |  | 8644 | 2 | 9032 | 7 | og68 | 16 |
| 45 | 6 | 9369 |  | 7701 | 3 | 1668 | 6 | 8332 | 15 |
| 46 | 7 | 1060 |  | 6757 | 3 | 4302 | 6 | 5698 | 14 |
| 47 | 7 | 2750 |  | 5813 | 3 | 6937 |  | 3063 | 13 |
| 48 | 7 | 4439 |  | 4868 | 3 | 9571 | 6 | 0429 | 12 |
| 49 | 7 | 6128 |  | 3923 | 4 | 2204 | 5 | 7796 | 11 |
| 50 | 7 | 7815 |  | 2977 | 4 | 4838 | 5 | 5162 | 10 |
| 51 | 7 | 9501 |  | 2031 | 4 | 7470 | 5 | 2530 | 9 |
| 52 | 8 | 1186 |  | 1084 | 5 | 0102 |  | 9898 | 8 |
| 53 | 8 | 2870 |  | 0136 | 5 | 2734 |  | 7266 | 7 |
| 54 | 8 | 4553 | 9902 | 9188 | , | 5365 |  | 4635 | 6 |
| 55 | 8 | 6235 |  | 8239 | 5 | 7996 | 4 | 2004 | 5 |
| 56 | 8 | 7916 |  | 7289 |  | 0627 | 3 | 9373 | 4 |
| 57 | 8 | 9596 |  | 6339 | 6 | 3257 | 3 | 6743 | 3 |
| 58 | 9 | 1275 |  | 5389 | 6 | 5886 | 3 | 4114 | 2 |
| 59 | 9 | 2953 |  | 4438 | 6 | 8515 | 3 | 1485 | 1 |
| 60 | 9 | 4630 |  | 3486 | 7 | 1144 | 2 | 8856 | 0 |
|  |  |  | Sin. | . 53 |  |  | Tan. | 53 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 37 |  |  |  | Tan. 37 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9779 | 4630 | 9902 | 3486 | 9877 | 1144 | 10122 | 8856 | 60 |
| 1 | 9 | 6306 |  | 2534 | 7 | 3772 | 2 | 6228 | 59 |
| 2 | 9 | 7981 |  | 1581 | 7 | 6400 | 2 | 3600 | 58 |
| 3 | 9 | 9655 |  | o628 | 7 | 9027 | 2 | 0973 | 57 |
| 4 | 9780 | 1328 | 9901 | 9674 | 8 | 1654 | 1 | 8346 | 56 |
| 5 | 0 | 3000 |  | 8719 | 8 | 4281 | 1 | 5719 | 55 |
| 6 | 0 | 4671 |  | 7764 | 8 | 6907 | 1 | 3093 | 54 |
| 7 | 0 | 6341 |  | 6808 | 8 | 9533 | 1 | 0467 | 53 |
| 8 | 0 | 8010 |  | 5852 | 9 | 2158 | 0 | 7842 | 52 |
| 9 | 0 | 9677 |  | 4895 | 9 | 4782 | 0 | 5218 | 51 |
| 10 | 1 | 1344 |  | 3938 | 9 | 7407 | 0 | 2593 | 50 |
| 11 | 1 | 3010 |  | 2980 | 9880 | 0031 | 10119 | 9969 | 49 |
| 12 | 1 | 4675 |  | 2021 | - | 2654 | 9 | 7346 | 48 |
| 13 | 1 | 6339 |  | 1062 | 0 | 5277 | 9 | 4723 | 47 |
| 14 | 1 | 8002 |  | 0102 | 0 | 7900 |  | 2100 | 46 |
| 15 | 1 | 9664 | 9900 | 9142 | 1 | 0522 | 8 | 9478 | 45 |
| 16 | 2 | 1324 |  | 8181 | 1 | 3144 | 8 | 6856 | 44 |
| 17 | 2 | 2984 |  | 7219 | 1 | 5765 | 8 | 4235 | 43 |
| 18 | 2 | 4643 |  | 6257 | 1 | 8386 | 8 | 1614 | 42 |
| 19 |  | 6301 |  | 5294 | 2 | 1007 | 7 | 8993 | 41 |
| 20 | 2 | 7958 |  | 4331 | 2 | 3627 | 7 | 6373 | 40 |
| 21 | 2 | 9614 |  | 3367 | 2 | 6246 | 7 | 3754 | 39 |
| 22 | 3 | 1268 |  | 2403 | 2 | 8866 | 7 | 1134 | 38 |
| 23 | 3 | 2922 |  | 1438 | 3 | 1484 | 6 | 8516 | 37 |
| 24 | 3 | 4575 |  | 0472 |  | 4103 | 6 | 5897 | 36 |
| 25 | 3 | 6227 | 9899 | 9506 | 3 | 6721 | 6 | 3279 | 35 |
| 26 | 3 | 7878 |  | 8539 |  | 9338 | 6 | 0662 | 34 |
| 27 | 3 | 9528 |  | 7572 | 4 | 1956 | 5 | 8044 | 33 |
| 28 | 4 | 1177 |  | 6604 | 4 | 4572 | 5 | 5428 | 32 |
| 29 | 4 | 2824 |  | 5636 | 4 | 7189 | 5 | 2811 | 31 |
| 30 | 4 | 4471 |  | 4667 |  | 9805 |  | 0195 | 30 |
|  |  |  | Sin. | . 52 |  |  | Tan. | 52 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 37 |  |  |  | Tan. 37 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9784 | 4471 | 9899 | 4667 | 9884 | 9805 | 10115 | 0195 | 30 |
| 31 | 4 | 6117 |  | 3697 | 5 | 2420 | 4 | 7580 | 29 |
| 32 | 4 | 7762 |  | 2727 | 5 | 5035 | 4 | 4965 | 28 |
| 33 | 4 | 9406 |  | 1756 | 5 | 7650 | 4 | 2350 | 27 |
| 34 | 5 | 1049 |  | 0784 |  | 0264 | 3 | 9736 | 26 |
| 35 | 5 | 2691 | 9898 | 9812 | 6 | 2878 | 3 | 7122 | 25 |
| 36 | 5 | 4332 |  | 8840 | 6 | 5492 | 3 | 4508 | 24 |
| 37 | 5 | 5972 |  | 7867 | 6 | 8105 | 3 | 1895 | 23 |
| 38 | 5 | 7611 |  | 6893 | 7 | 0718 | 2 | 9282 | 22 |
| 39 | 5 | 9249 |  | 5919 | 7 | 3330 | 2 | 6670 | 21 |
| 40 | 6 | 0886 |  | 4944 | 7 | 5942 | 2 | 4058 | 20 |
| 41 | 6 | 2522 |  | 3968 | 7 | 8554 | 2 | 1446 | 19 |
| 42 | 6 | 4157 |  | 2992 | 8 | 1165 | 1 | 8835 | 18 |
| 43 | 6 | 5791 |  | 2015 | 8 | 3775 | 1 | 6225 | 17 |
| 44 | 6 | 7424 |  | 1038 | 8 | 6386 | 1 | 3614 | 16 |
| 45 | 6 | 9056 |  | 0060 | 8 | 8996 | 1 | 1004 | 15 |
| 46 | 7 | 0687 | 9897 | 9082 | 9 | 1605 |  | 8395 | 14 |
| 47 | 7 | 2317 |  | 8103 | 9 | 4214 | 0 | 5786 | 13 |
| 48 | 7 | 3946 |  | 7123 | 9 | 6823 | 0 | 3177 | 12 |
| 49 | 7 | 5574 |  | 6143 | 9 | 9432 | 0 | 0568 | 11 |
| 50 | 7 | 7202 |  | 5162 | 9890 | 2040 | 10109 | 7960 | 10 |
| 51 | 7 | 8828 |  | 4181 | 0 | 4647 | 9 | 5353 | 9 |
| 52 | 8 | 0453 |  | 3199 | 0 | 7254 | 9 | 2746 | 8 |
| 53 | 8 | 2077 |  | 2216 | 0 | 9861 | 9 | 0139 | 7 |
| 54 | 8 | 3701 |  | 1233 | 1 | 2468 | 8 | 7532 | 6 |
| 55 | 8 | 5323 |  | 0249 | 1 | 5074 | 8 | 4926 | 5 |
| 56 | 8 | 6944 | 9896 | 9265 | 1 | 7679 | 8 | 2321 | 4 |
| 57 | 8 | 8565 |  | 8280 | 2 | 0285 |  | 9715 | 3 |
| 58 | 9 | 0184 |  | 7294 | 2 | 2890 |  | 7110 | 2 |
| 59 | 9 | 1802 |  | 6308 | 2 | 5494 | 7 | 4506 | 1 |
| 60 | 9 | 3420 |  | 5321 | 2 | 8098 | 7 | 1902 | 0 |
|  |  |  | Sin | . 52 |  |  | Tan. | 52 | M |


| M | Sin. 38 |  |  |  | Tan. $3^{8}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9789 | 3420 | 9896 | 5321 | 9892 | 8098 | 10107 | 1902 | 60 |
| 1 | 9 | 5036 |  | 4334 | 3 | 0702 | 6 | 9298 | 59 |
| 2 | 9 | 6652 |  | 3346 | 3 | 3306 | 6 | 6694 | 58 |
| 3 | 9 | 8266 |  | 2358 | 3 | 5909 | 6 | 4091 | 57 |
| 4 | 9 | 9880 |  | 1369 | 3 | 8511 | 6 | 1489 | 56 |
| 5 | 9790 | 1493 |  | 0379 | 4 | 1114 | 5 | 8886 | 55 |
| 6 | 0 | 3104 | 9895 | 9389 | 4 | 3715 | 5 | 6285 | 54 |
| 7 | 0 | 4715 |  | 8398 | 4 | 6317 | 5 | 3683 | 53 |
| 8 | 0 | 6325 |  | 7406 |  | 8918 | 5 | 1082 | 52 |
| 9 | 0 | 7933 |  | 6414 | 5 | 1519 | 4 | 8481 | 51 |
| 10 | 0 | 9541 |  | 5422 | 5 | 4119 | 4 | 5881 | 50 |
| 11 | 1 | 1148 |  | 4429 | 5 | 6719 | 4 | 3281 | 49 |
| 12 | 1 | 2754 |  | 3435 | 5 | 9319 | 4 | 0681 | 48 |
| 13 | 1 | 4359 |  | 2440 | 6 | 1918 | 3 | 8082 | 47 |
| 14 | 1 | 5963 |  | 1445 | 6 | 4517 | 3 | 5483 | 46 |
| 15 | 1 | 7566 |  | 0450 | 6 | 7116 | 3 | 2884 | 45 |
| 16 | 1 | 9168 | 9894 | 9453 | 6 | 9714 | 3 | 0286 | 44 |
| 17 | 2 | 0769 |  | 8457 | 7 | 2312 | 2 | 7688 | 43 |
| 18 | 2 | 2369 |  | 7459 | 7 | 4910 | 2 | 5090 | 42 |
| 19 | 2 | 3968 |  | 6461 |  | 7507 | 2 | 2493 | 41 |
| 20 | 2 | 5566 |  | 5463 | 8 | 0104 | 1 | 9896 | 40 |
| 21 | 2 | 7163 |  | 4463 | 8 | 2700 | 1 | 7300 | 39 |
| 22 | 2 | 8760 |  | 3464 | 8 | 5296 | 1 | 4704 | 38 |
| 23 | 3 | 0355 |  | 2463 | 8 | 7892 | 1 | 2108 | 37 |
| 24 | 3 | 1949 |  | 1462 | 9 | 0487 | 0 | 9513 | 36 |
| 25 | 3 | 3543 |  | 0461 | 9 | 3082 | 0 | 6918 | 35 |
| 26 | 3 | 5135 | 9893 | 9458 | 9 | 5677 | 0 | 4323 | 34 |
| 27 | 3 | 6727 |  | 8456 | 9 | 8271 | 0 | 1729 | 33 |
| 28 | 3 | 8317 |  | 7452 | 9900 | 0865 | 10099 | 9135 | 32 |
| 29 | 3 | 9907 |  | 6448 | - | 3459 | 9 | 6541 | 31 |
| 30 | 4 | 1496 |  | 5444 |  | 6052 | 9 | 3948 | 30 |
|  |  |  | Sin. | . 51 |  |  | Tan. | 51 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. $3^{8}$ |  |  |  | Tan. 38 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9794 | 1496 | 9893 | 5444 | 9900 | 6052 | 10099 | 3948 | 30 |
| 31 | 4 | 3083 |  | 4439 | 0 | 8645 | 9 | 1355 | 29 |
| 32 | 4 | 4670 |  | 3433 | 1 | 1237 | 8 | 8763 | 28 |
| 33 | 4 | 6256 |  | 2426 |  | 3830 | 8 | 6170 | 27 |
| 34 | 4 | 7841 |  | 1419 |  | 6422 | 8 | 3578 | 26 |
| 35 | 4 | 9425 |  | 0412 | 1 | 9013 | 8 | 0987 | 25 |
| 36 | 5 | 1008 | 9892 | 9404 | 2 | 1604 | 7 | 8396 | 24 |
| 37 | 5 | 2590 |  | 8395 | 2 | 4195 | 7 | 5805 | 23 |
| 38 | 5 | 4171 |  | 7385 | 2 | 6786 | 7 | 3214 | 22 |
| 39 | 5 | 5751 |  | 6375 | 2 | 9376 | 7 | o624 | 21 |
| 40 | 5 | 7330 |  | 5365 | 3 | 1966 | 6 | 8034 | 20 |
| 41 | 5 | 8909 |  | 4354 | 3 | 4555 | 6 | 5445 | 19 |
| 42 | 6 | 0486 |  | 3342 | 3 | 7144 | 6 | 2856 | 18 |
| 43 | 6 | 2062 |  | 2329 | 3 | 9733 | 6 | 0267 | 17 |
| 44 | 6 | 3638 |  | 1316 | 4 | 2321 | 5 | 7679 | 16 |
| 45 | 6 | 5212 |  | 0303 | 4 | 4910 | 5 | 5090 | 15 |
| 46 | 6 | 6786 | 9891 | 9289 | 4 | 7497 | 5 | 2503 | 14 |
| 47 | 6 | 8359 |  | 8274 | 5 | 0085 | 4 | 9915 | 13 |
| 48 | 6 | 9930 |  | 7258 | 5 | 2672 | 4 | 7328 | 12 |
| 49 | 7 | 1501 |  | 6242 | 5 | 5259 | 4 | 4741 | 11 |
| 50 | 7 | 3071 |  | 5226 | 5 | 7845 | 4 | 2155 | 10 |
| 51 | 7 | 4640 |  | 4208 | 6 | 0431 |  | 9569 | 9 |
| 52 | 7 | 6208 |  | 3191 | 6 | 3017 | 3 | 6983 | 8 |
| 53 | 7 | 7775 |  | 2172 | 6 | 5603 | 3 | 4397 | 7 |
| 54 | 7 | 9341 |  | 1153 | 6 | 8188 | 3 | 1812 | 6 |
| 55 | 8 | 0906 |  | 0133 | 7 | 0773 | 2 | 9227 | 5 |
| 56 | 8 | 2470 | 9890 | 9113 | 7 | 3357 | 2 | 6643 | 4 |
| 57 | 8 | 4034 |  | 8092 | 7 | 5941 | 2 | 4059 | 3 |
| 58 | 8 | 5596 |  | 7071 | 7 | 8525 | 2 | 1475 | 2 |
| 59 | 8 | 7158 |  | 6049 | 8 | 1109 | 1 | 8891 | 1 |
| 60 | 8 | 8718 |  | 5026 | 8 | 3692 |  | 6308 | 0 |
|  |  |  | Sin | . 51 |  |  | Tan | 51 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 39 |  |  |  | Tan. 39 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9798 | 8718 | 9890 | 5026 | 9908 | 3692 | 10091 | 6308 | 60 |
| 1 | 9 | 0278 |  | 4003 | 8 | 6275 | 1 | 3725 | 59 |
| 2 | 9 | 1836 |  | 2979 | 8 | 8858 | 1 | 1142 | 58 |
| 3 | 9 | 3394 |  | 1954 | 9 | 1440 | 0 | 8560 | 57 |
| 4 | 9 | 4951 |  | 0929 |  | 4022 | 0 | 5978 | 56 |
| 5 | 9 | 6507 | 9889 | 9903 |  | 6603 | 0 | 3397 | 55 |
| 6 | 9 | 8062 |  | 8877 | 9 | 9185 | 0 | 0815 | 54 |
| 7 | 9 | 9616 |  | 7850 | 9910 | 1766 | 10089 | 8234 | 53 |
| 8 | 9800 | 1169 |  | 6822 |  | 4347 | 9 | 5653 | 52 |
| 9 | 0 | 2721 |  | 5794 |  | 6927 | 9 | 3073 | 51 |
| 10 | 0 | 4272 |  | 4765 |  | 9507 | 9 | 0493 | 50 |
| 11 | 0 | 5823 |  | 3736 |  | 2087 | 8 | 7913 | 49 |
| 12 | 0 | 7372 |  | 2706 |  | 4666 | 8 | 5334 | 48 |
| 13 | 0 | 8921 |  | 1675 |  | 7245 | 8 | 2755 | 47 |
| 14 | 1 | 0468 |  | o644 | 1 | 9824 | 8 | 0176 | 46 |
| 15 | 1 | 2015 | 9888 | 9612 | 2 | 2403 | 7 | 7597 | 45 |
| 16 | 1 | 3561 |  | 8580 |  | 4981 | 7 | 5019 | 44 |
| 17 | 1 | 5106 |  | 7547 | 2 | 7559 | 7 | 2441 | 43 |
| 18 | 1 | 6649 |  | 6513 | 3 | 0137 | 6 | 9863 | 42 |
| 19 | 1 | 8192 |  | 5479 |  | 2714 | 6 | 7286 | 41 |
| 20 | 1 | 9735 |  | 4444 | 3 | 5291 | 6 | 4709 | 40 |
| 21 | 2 | 1276 |  | 3408 |  | 7868 | 6 | 2132 | 39 |
| 22 | 2 | 2816 |  | 2372 |  | 0444 | 5 | 9556 | 38 |
| 23 | 2 | 4355 |  | 1335 |  | 3020 | 5 | 6980 | 37 |
| 24 | 2 | 5894 |  | 0298 |  | 5596 | 5 | 4404 | 36 |
| 25 | 2 | 7431 | 9887 | 9260 | 4 | 8171 | 5 | 1829 | 35 |
| 26 | 2 | 8968 |  | 8221 | 5 | 0747 | 4 | 9253 | 34 |
| 27 | 3 | 0504 |  | 7182 | 5 | 3322 | 4 | 6678 | 33 |
| 28 | 3 | 2038 |  | 6142 |  | 5896 | 4 | 4104 | 32 |
| 29 | 3 | 3572 |  | 5102 |  | 8471 | 4 | 1529 | $3^{1}$ |
| 30 | 3 | 5105 |  | 4061 |  | 1045 |  | 8955 | 30 |
|  |  |  | Sin. | . 50 |  |  | Tan. | 50 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 39 |  |  |  | Tan. 39 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9803 | 5105 | 9887 | 4061 | 9916 | 1045 | 10083 | 8955 | 30 |
| 31 | 3 | 6637 |  | 3019 | 6 | 3618 | 3 | 6382 | 29 |
| 32 | 3 | 8168 |  | 1977 | 6 | 6192 | 3 | 3808 | 28 |
| 33 | 3 | 9699 |  | 0934 | 6 | 8765 | 3 | 1235 | 27 |
| 34 | 4 | 1228 | 9886 | 9890 | 7 | 1338 | 2 | 8662 | 26 |
| 35 | 4 | 2757 |  | 8846 | 7 | 3911 | 2 | 6089 | 25 |
| 36 | 4 | 4284 |  | 7801 | 7 | 6483 | 2 | 3517 | 24 |
| 37 | 4 | 5811 |  | 6756 | 7 | 9055 | 2 | 0945 | 23 |
| 38 | 4 | 7336 |  | 5710 | 8 | 1627 | 1 | 8373 | 22 |
| 39 | 4 | 8861 |  | 4663 | 8 | 4198 | 1 | 5802 | 21 |
| 40 | 5 | 0385 |  | 3616 | 8 | 6769 | 1 | 3231 | 20 |
| 41 | 5 | 1908 |  | 2568 | 8 | 9340 | 1 | 0660 | 19 |
| 42 | 5 | 3430 |  | 1519 | 9 | 1911 | 0 | 8089 | 18 |
| 43 | 5 | 4951 |  | 0470 | 9 | 4481 |  | 5519 | 17 |
| 44 | 5 | 6472 | 9885 | 9420 | 9 | 7051 | 0 | 2949 | 16 |
| 45 | 5 | 7991 |  | 8370 | 9 | 9621 | 0 | 0379 | 15 |
| 46 | 5 | 9510 |  | 7319 | 9920 | 2191 | 10079 | 7809 | 14 |
| 47 | , | 1027 |  | 6267 | 0 | 4760 | 9 | 5240 | 13 |
| 48 | 6 | 2544 |  | 5215 | 0 | 7329 | 9 | 2671 | 12 |
| 49 | 6 | 4060 |  | 4162 | 0 | 9898 | 9 | 0102 | 11 |
| 50 | 6 | 5575 |  | 3109 | 1 | 2466 | 8 | 7534 | 10 |
| 51 | 6 | 7089 |  | 2055 | 1 | 5034 | 8 | 4966 | 9 |
| 52 | 6 | 8602 |  | 1000 | 1 | 7602 |  | 2398 | 8 |
| 53 | 7 | 0114 | 9884 | 9945 | 2 | 0170 |  | 9830 | 7 |
| 54 | 7 | 1626 |  | 8889 | 2 | 2737 |  | 7263 | 6 |
| 55 | 7 | 3136 |  | 7832 | 2 | 5304 | 7 | 4696 | 5 |
| 56 |  | 4646 |  | 6775 | 2 | 7871 |  | 2129 | 4 |
| 57 | 7 | 6154 |  | 5717 | 3 | 0437 |  | 9563 | 3 |
| 58 | 7 | 7662 |  | 4659 | 3 | 3004 |  | 6996 | 2 |
| 59 | 7 | 9169 |  | 3599 | 3 | 5570 |  | 4430 | 1 |
| 60 | 8 | 0675 |  | 2540 | 3 | 8135 |  | 1865 | 0 |
|  |  |  | Sin | . 50 |  |  | Tan. | 50 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 40 |  |  |  | Tan. 40 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9808 | 0675 | 9884 | 2540 | 9923 | 8135 | 10076 | 1865 | 60 |
| 1 | 8 | 2180 |  | 1479 | 4 | 0701 | 5 | 9299 | 59 |
| 2 | 8 | 3684 |  | 0418 | 4 | 3266 | 5 | 6734 | 58 |
| 3 | 8 | 5188 | 9883 | 9357 | 4 | 5831 | 5 | 4169 | 57 |
| 4 | 8 | 6690 |  | 8294 | 4 | 8396 | 5 | 1604 | 56 |
| 5 | 8 | 8192 |  | 7232 | 5 | og6o | 4 | 9040 | 55 |
| 6 | 8 | 9692 |  | 6168 | 5 | 3524 | 4 | 6476 | 54 |
| 7 | 9 | 1192 |  | 5104 | 5 | 6088 | 4 | 3912 | 53 |
| 8 | 9 | 2691 |  | 4039 | 5 | 8652 | 4 | 1348 | 52 |
| 9 | 9 | 4189 |  | 2974 | 6 | 1215 | 3 | 8785 | 51 |
| 10 | 9 | 5686 |  | 1908 | 6 | 3778 | 3 | 6222 | 50 |
| 11 | 9 | 7182 |  | 0841 | 6 | 6341 | 3 | 3659 | 49 |
| 12 | 9 | 8678 | 9882 | 9774 | 6 | 8904 | 3 | 1096 | 48 |
| 13 | 9810 | 0172 |  | 8706 | 7 | 1466 | 2 | 8534 | 47 |
| 14 | 0 | 1666 |  | 7638 | 7 | 4028 | 2 | 5972 | 46 |
| 15 | 0 | 3159 |  | 6568 | 7 | 6590 | 2 | 3410 | 45 |
| 16 | 0 | 4650 |  | 5499 | 7 | 9152 | 2 | 0848 | 44 |
| 17 | 0 | 6141 |  | 4428 | 8 | 1713 | 1 | 8287 | 43 |
| 18 | 0 | 7631 |  | 3357 | 8 | 4274 | 1 | 5726 | 42 |
| 19 | 0 | 9121 |  | 2285 | 8 | 6835 | 1 | 3165 | 41 |
| 20 | 1 | 0609 |  | 1213 | 8 | 9396 | 1 | 0604 | 40 |
| 21 | 1 | 2096 |  | 0140 | 9 | 1956 | 0 | 8044 | 39 |
| 22 | 1 | 3583 | 9881 | 9067 | 9 | 4516 | 0 | 5484 | 38 |
| 23 | 1 | 5069 |  | 7992 |  | 7076 | 0 | 2924 | 37 |
| 24 | 1 | 6554 |  | 6918 |  | 9636 | 0 | 0364 | 36 |
| 25 | 1 | 8038 |  | 5842 | 9930 | 2195 | 10069 | 7805 | 35 |
| 26 | 1 | 9521 |  | 4766 | 0 | 4755 | 9 | 5245 | 34 |
| 27 | 2 | 1003 |  | 3689 | 0 | 7314 | 9 | 2686 | 33 |
| 28 | 2 | 2484 |  | 2612 | 0 | 9872 | 9 | 0128 | 32 |
| 29 |  | 3965 |  | 1534 | 1 | 2431 | 8 | 7569 | 31 |
| 30 | 2 | 5444 |  | 0455 | 1 | 4989 | 8 | 5011 | 30 |
|  |  |  | Sin. | . 49 |  |  | Tan. | 49 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 40 |  |  |  | Tan. 40 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9812 | 5444 | 9881 | 0455 | 9931 | 4989 | 10068 | 5011 | 30 |
| 31 | 2 | 6923 | 9880 | 9376 | 1 | 7547 | 8 | 2453 | 29 |
| 32 | 2 | 8401 |  | 8296 | 2 | 0105 | 7 | 9895 | 28 |
| 33 | 2 | 9878 |  | 7215 | 2 | 2662 | 7 | 7338 | 27 |
| 34 | 3 | 1354 |  | 6134 | 2 | 5220 | 7 | 4780 | 26 |
| 35 | 3 | 2829 |  | 5052 | 2 | 7777 | 7 | 2223 | 25 |
| 36 | 3 | 4303 |  | 3970 | 3 | 0334 | 6 | 9666 | 24 |
| 37 | 3 | 5777 |  | 2887 | 3 | 2890 | 6 | 7110 | 23 |
| 38 | 3 | 7250 |  | 1803 | 3 | 5446 |  | 4554 | 22 |
| 39 | 3 | 8721 |  | 0719 | 3 | 8003 | 6 | 1997 | 21 |
| 40 | 4 | 0192 | 9879 | 9634 | 4 | 0559 | 5 | 9441 | 20 |
| 41 | 4 | 1662 |  | 8548 | 4 | 3114 | 5 | 6886 | 19 |
| 42 | 4 | 3131 |  | 7462 | 4 | 5670 | 5 | 4330 | 18 |
| 43 | 4 | 4600 |  | 6375 | 4 | 8225 | 5 | 1775 | 17 |
| 44 | 4 | 6067 |  | 5287 | 5 | 0780 | 4 | 9220 | 16 |
| 45 | 4 | 7534 |  | 4199 | 5 | 3335 | 4 | 6665 | 15 |
| 46 | 4 | 8999 |  | 3110 | 5 | 5889 | 4 | 4111 | 14 |
| 47 | 5 | 0464 |  | 2021 | 5 | 8444 | 4 | 1556 | 13 |
| 48 | 5 | 1928 |  | 0930 | 6 | 0998 | 3 | 9002 | 12 |
| 49 | 5 | 3391 | 9878 | 9840 | 6 | 3552 | 3 | 6448 | 11 |
| 50 | 5 | 4854 |  | 8748 | 6 | 6105 | 3 | 3895 | 10 |
| 51 | 5 | 6315 |  | 7656 | 6 | 8659 | 3 | 1341 | 9 |
| 52 | 5 | 7776 |  | 6563 | 7 | 1212 | 2 | 8788 | 8 |
| 53 | 5 | 9235 |  | 5470 | 7 | 3765 | 2 | 6235 | 7 |
| 54 |  | 0694 |  | 4376 |  | 6318 | 2 | 3682 | 6 |
| 55 | 6 | 2152 |  | 3281 | 7 | 8871 | 2 | 1129 | 5 |
| 56 | 6 | 3609 |  | 2186 | 8 | 1423 | 1 | 8577 | 4 |
| 57 | 6 | 5066 |  | 1090 | 8 | 3975 | 1 | 6025 | 3 |
| 58 | 6 | 6521 | 9877 | 9994 | 8 | 6527 | 1 | 3473 | 2 |
| 59 | 6 | 7975 |  | 8896 | 8 | 9079 | 1 | 0921 | 1 |
| 60 | 6 | 9429 |  | 7799 | 9 | 1631 |  | 8369 | 0 |
|  |  |  | Sin. | . 49 |  |  | Tan | 49 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 41 |  |  |  | Tan. 41 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9816 | 9429 | 9877 | 7799 | 9939 | 1631 | 10060 | 8369 | 60 |
| 1 | 7 | 0882 |  | 6700 | 9 | 4182 | 0 | 5818 | 59 |
| 2 | 7 | 2334 |  | 5601 | 9 | 6733 | 0 | 3267 | 58 |
| 3 | 7 | 3785 |  | 4501 | 9 | 9284 | 0 | 0716 | 57 |
| 4 | 7 | 5235 |  | 3401 | 9940 | 1835 | 10059 | 8165 | 56 |
| 5 | 7 | 6685 |  | 2300 | 0 | 4385 | 9 | 5615 | 55 |
| 6 | 7 | 8133 |  | 1198 | 0 | 6936 | 9 | 3064 | 54 |
| 7 | 7 | 9581 |  | 0096 | 0 | 9486 | 9 | 0514 | 53 |
| 8 | 8 | 1028 | 9876 | 8993 | 1 | 2036 | 8 | 7964 | 52 |
| 9 | 8 | 2474 |  | 7889 | 1 | 4585 | 8 | 5415 | 51 |
| 10 | 8 | 3919 |  | 6785 | 1 | 7135 | 8 | 2865 | 50 |
| 11 | 8 | 5364 |  | 5680 | 1 | 9684 | 8 | 0316 | 49 |
| 12 | 8 | 6807 |  | 4574 | 2 | 2233 | 7 | 7767 | 48 |
| 13 | 8 | 8250 |  | 3468 | 2 | 4782 | 7 | 5218 | 47 |
| 14 | 8 | 9692 |  | 2361 | 2 | 7331 | 7 | 2669 | 46 |
| 15 | 9 | 1133 |  | 1253 | 2 | 9879 | 7 | 0121 | 45 |
| 16 | 9 | 2573 |  | 0145 | 3 | 2428 | 6 | 7572 | 44 |
| 17 | 9 | 4012 | 9875 | 9036 | 3 | 4976 | 6 | 5024 | 43 |
| 18 | 9 | 5450 |  | 7927 | 3 | 7524 | 6 | 2476 | 42 |
| 19 | 9 | 6888 |  | 6816 | 4 | 0072 | 5 | 9928 | 41 |
| 20 | 9 | 8325 |  | 5706 | 4 | 2619 | 5 | 7381 | 40 |
| 21 | 9 | 9761 |  | 4594 | 4 | 5166 | 5 | 4834 | 39 |
| 22 | 9820 | 1196 |  | 3482 | 4 | 7714 | 5 | 2286 | 38 |
| 23 | 0 | 2630 |  | 2369 | 5 | 0261 | 4 | 9739 | 37 |
| 24 | 0 | 4063 |  | 1256 | 5 | 2807 | 4 | 7193 | 36 |
| 25 | 0 | 5496 |  | 0142 | 5 | 5354 | 4 | 4646 | 35 |
| 26 |  | 6927 | 9874 | 9027 |  | 7900 | 4 | 2100 | 34 |
| 27 | 0 | 8358 |  | 7912 | 6 | 0447 | 3 | 9553 | 33 |
| 28 | 0 | 9788 |  | 6795 | 6 | 2993 | 3 | 7007 | 32 |
| 29 | 1 | 1217 |  | 5679 | 6 | 5539 | 3 | 4461 | 31 |
| 30 | 1 | 2646 |  | 4561 | 6 | 8084 | 3 | 1916 | 30 |
|  |  |  | Sin. | . 48 |  |  | Tan. | 48 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 41 |  |  |  | Tan. 41 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9821 | 2646 | 9874 | 4561 | 9946 | 8084 | 10053 | 1916 | 30 |
| 31 | 1 | 4073 |  | 3443 | 7 | 0630 | 2 | 9370 | 29 |
| 32 | 1 | 5500 |  | 2325 | 7 | 3175 | 2 | 6825 | 28 |
| 33 | 1 | 6926 |  | 1205 | 7 | 5720 | 2 | 4280 | 27 |
| 34 | 1 | 8351 |  | 0085 | 7 | 8265 | 2 | 1735 | 26 |
| 35 | 1 | 9775 | 9873 | 8965 | 8 | 0810 | 1 | 9190 | 25 |
| 36 | 2 | 1198 |  | 7844 | 8 | 3355 | 1 | 6645 | 24 |
| 37 | 2 | 2621 |  | 6722 | 8 | 5899 | 1 | 4101 | 23 |
| 38 | 2 | 4042 |  | 5599 | 8 | 8443 | 1 | 1557 | 22 |
| 39 | 2 | 5463 |  | 4476 | 9 | o987 | 0 | 9013 | 21 |
| 40 | 2 | 6883 |  | 3352 | 9 | 3531 | 0 | 6469 | 20 |
| 41 | 2 | 8302 |  | 2227 | 9 | 6075 | 0 | 3925 | 19 |
| 42 | 2 | 9721 |  | 1102 | 9 | 8619 | O | 1381 | 18 |
| 43 | 3 | 1138 | 9872 | 9976 | 9950 | 1162 | 10049 | 8838 | 17 |
| 44 | 3 | 2555 |  | 8849 | 0 | 3705 | 9 | 6295 | 16 |
| 45 | 3 | 3971 |  | 7722 | 0 | 6248 | 9 | 3752 | 15 |
| 46 | 3 | 5386 |  | 6594 |  | 8791 | 9 | 1209 | 14 |
| 47 | 3 | 6800 |  | 5466 | 1 | 1334 | 8 | 8666 | 13 |
| 48 | 3 | 8213 |  | 4337 | 1 | 3876 | 8 | 6124 | 12 |
| 49 | 3 | 9626 |  | 3207 | 1 | 6419 | 8 | 3581 | 11 |
| 50 | 4 | 1037 |  | 2076 | 1 | 8961 | 8 | 1039 | 10 |
| 51 | 4 | 2448 |  | 0945 | 2 | 1503 | 7 | 8497 | 9 |
| 52 | 4 | 3858 | 9871 | 9813 | 2 | 4045 | 7 | 5955 | 8 |
| 53 | 4 | 5267 |  | 8681 | 2 | 6587 |  | 3413 | 7 |
| 54 | 4 | 6676 |  | 7548 | 2 | 9128 | 7 | 0872 | 6 |
| 55 | 4 | 8083 |  | 6414 | 3 | 1670 | 6 | 8330 | 5 |
| 56 | 4 | 9490 |  | 5279 | 3 | 4211 | 6 | 5789 | 4 |
| 57 | 5 | o896 |  | 4144 | 3 | 6752 |  | 3248 | 3 |
| 58 | 5 | 2301 |  | 3008 | 3 | 9293 | 6 | 0707 | 2 |
| 59 | 5 | 3705 |  | 1872 | 4 | 1834 | 5 | 8166 | 1 |
| 60 | 5 | 5109 |  | 0735 | 4 | 4374 |  | 5626 | 0 |
|  |  |  | Sin | . 48 |  |  | Tan. | 48 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 42 |  |  |  | Tan. 42 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9825 | 5109 | 9871 | 0735 | 9954 | 4374 | 10045 | 5626 | 60 |
| 1 | 5 | 6512 | 9870 | 9597 | 4 | 6915 | 5 | 3085 | 59 |
| 2 | 5 | 7913 |  | 8458 | 4 | 9455 | 5 | 0545 | 58 |
| 3 | 5 | 9314 |  | 7319 | 5 | 1995 | 4 | 8005 | 57 |
| 4 | 6 | 0715 |  | 6179 | 5 | 4535 | 4 | 5465 | 56 |
| 5 | 6 | 2114 |  | 5039 | 5 | 7075 | 4 | 2925 | 55 |
| 6 | 6 | 3512 |  | 3898 | 5 | 9615 | 4 | 0385 | 54 |
| 7 | 6 | 4910 |  | 2756 | 6 | 2154 | 3 | 7846 | 53 |
| 8 | 6 | 6307 |  | 1613 | 6 | 4694 | 3 | 5306 | 52 |
| 9 | 6 | 7703 |  | 0470 | 6 | 7233 | 3 | 2767 | 51 |
| 10 | 6 | 9098 | 9869 | 9326 | 6 | 9772 | 3 | 0228 | 50 |
| 11 | 7 | 0493 |  | 8182 | 7 | 2311 | 2 | 7689 | 49 |
| 12 | 7 | 1887 |  | 7037 | 7 | 4850 | 2 | 5150 | 48 |
| 13 | 7 | 3279 |  | 5891 | 7 | 7389 | 2 | 2611 | 47 |
| 14 | 7 | 4671 |  | 4744 | 7 | 9927 | 2 | 0073 | 46 |
| 15 | 7 | 6063 |  | 3597 | 8 | 2465 | 1 | 7535 | 45 |
| 16 | 7 | 7453 |  | 2449 | 8 | 5004 | 1 | 4996 | 44 |
| 17 | 7 | 8843 |  | 1301 | 8 | 7542 | 1 | 2458 | 43 |
| 18 | 8 | 0231 |  | 0152 | 9 | 0080 | 0 | 9920 | 42 |
| 19 | 8 | 1619 | 9868 | 9002 | 9 | 2618 |  | 7382 | 41 |
| 20 | 8 | 3006 |  | 7851 | 9 | 5155 | 0 | 4845 | 40 |
| 21 | 8 | 4393 |  | 6700 | 9 | 7693 | 0 | 2307 | 39 |
| 22 | 8 | 5778 |  | 5548 | 9960 | 0230 | 10039 | 9770 | 38 |
| 23 | 8 | 7163 |  | 4396 | 0 | 2767 | 9 | 7233 | 37 |
| 24 | 8 | 8547 |  | 3242 | 0 | 5305 | 9 | 4695 | 36 |
| 25 | 8 | 9930 |  | 2088 | 0 | 7842 | 9 | 2158 | 35 |
| 26 | 9 | 1312 |  | 0934 | 1 | 0378 | 8 | 9622 | 34 |
| 27 | 9 | 2694 | 9867 | 9779 | 1 | 2915 |  | 7085 | 33 |
| 28 | 9 | 4075 |  | 8623 | 1 | 5452 |  | 4548 | 32 |
| 29 | 9 | 5454 |  | 7466 |  | 7988 |  | 2012 | 31 |
| 30 | 9 | 6833 |  | 6309 |  | 0525 |  | 9475 | 30 |
|  |  |  | Sin. | . 47 |  |  | Tan | 47 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 42 |  |  |  | Tan. 42 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9829 | 6833 | 9867 | 6309 | 9962 | 0525 | 10037 | 9475 | 30 |
| 31 | 9 | 8212 |  | 5151 | 2 | 3061 | 7 | 6939 | 29 |
| 32 | 9 | 9589 |  | 3992 | 2 | 5597 | 7 | 4403 | 28 |
| 33 | 9830 | o966 |  | 2833 | 2 | 8133 | 7 | 1867 | 27 |
| 34 | 0 | 2342 |  | 1673 | 3 | o669 | 6 | 9331 | 26 |
| 35 | O | 3717 |  | 0512 | 3 | 3204 | 6 | 6796 | 25 |
| 36 | 0 | 5091 | 9866 | 9351 | 3 | 5740 | 6 | 4260 | 24 |
| 37 | 0 | 6464 |  | 8189 | 3 | 8275 | 6 | 1725 | 23 |
| 38 | 0 | 7837 |  | 7026 | 4 | 0811 | 5 | 9189 | 22 |
| 39 | 0 | 9209 |  | 5863 | 4 | 3346 | 5 | 6654 | 21 |
| 40 | 1 | 0580 |  | 4699 | 4 | 5881 | 5 | 4119 | 20 |
| 41 | 1 | 1950 |  | 3534 | 4 | 8416 | 5 | 1584 | 19 |
| 42 | 1 | 3320 |  | 2369 | 5 | 0951 | 4 | 9049 | 18 |
| 43 | 1 | 4688 |  | 1203 | 5 | 3486 | 4 | 6514 | 17 |
| 44 | 1 | 6056 |  | 0036 | 5 | 6020 | 4 | 3980 | 16 |
| 45 | 1 | 7423 | 9865 | 8868 | 5 | 8555 | 4 | 1445 | 15 |
| 46 | 1 | 8789 |  | 7700 | 6 | 1089 | 3 | 8911 | 14 |
| 47 | 2 | 0155 |  | 6531 | 6 | 3623 | 3 | 6377 | 13 |
| 48 | 2 | 1519 |  | 5362 | 6 | 6157 | 3 | 3843 | 12 |
| 49 | 2 | 2883 |  | 4192 | 6 | 8692 | 3 | 1308 | 11 |
| 50 | 2 | 4246 |  | 3021 | 7 | 1225 | 2 | 8775 | 10 |
| 51 | 2 | 5609 |  | 1849 | 7 | 3759 | 2 | 6241 | 9 |
| 52 | 2 | 6970 |  | 0677 | 7 | 6293 | 2 | 3707 | 8 |
| 53 | 2 | 8331 | 9864 | 9504 | 7 | 8827 | 2 | 1173 | 7 |
| 54 | 2 | 9691 |  | 8331 | 8 | 1360 | 1 | 8640 | 6 |
| 55 | 3 | 1050 |  | 7156 | 8 | 3893 | 1 | 6107 | 5 |
| 56 | 3 | 2408 |  | 5981 | 8 | 6427 | 1 | 3573 | 4 |
| 57 | 3 | 3766 |  | 4806 | 8 | 8960 | 1 | 1040 | 3 |
| 58 | 3 | 5122 |  | 3629 | 9 | 1493 |  | 8507 | 2 |
| 59 | 3 | 6478 |  | 2452 | 9 | 4026 | 0 | 5974 | 1 |
| 60 | 3 | 7833 |  | 1275 | 9 | 6559 | 0 | 3441 | 0 |
|  |  |  | Sin. | . 47 |  |  | Tan. | 47 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 43 |  |  |  | Tan. 43 |  | 10030 | 3441 | 60 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9833 | 7833 | 9864 | 1275 | 9969 | 6559 |  |  |  |
| 1 | 3 | 9188 |  | 0096 | 9 | 9091 | 0 | 0909 | 59 |
| 2 | 4 | 0541 | 9863 | 8917 | 9970 | 1624 | 10029 | 8376 | 58 |
| 3 | 4 | 1894 |  | 7737 | 0 | 4157 | 9 | 5843 | 57 |
| 4 | 4 | 3246 |  | 6557 | 0 | 6689 | 9 | 3311 | 56 |
| 5 | 4 | 4597 |  | 5376 | 0 | 9221 | 9 | 0779 | 55 |
| 6 | 4 | 5948 |  | 4194 | 1 | 1754 | 8 | 8246 | 54 |
| 7 | 4 | 7297 |  | 3011 | 1 | 4286 | 8 | 5714 | 53 |
| 8 | 4 | 8646 |  | 1828 | 1 | 6818 | 8 | 3182 | 52 |
| 9 | 4 | 9994 |  | 0644 | 1 | 9350 | 8 | 0650 | 51 |
| 10 | 5 | 1341 | 9862 | 9460 | 2 | 1882 | 7 | 8118 | 50 |
| 11 | 5 | 2688 |  | 8274 | 2 | 4413 | 7 | $55^{87}$ | 49 |
| 12 | 5 | 4033 |  | 7088 | 2 | 6945 | 7 | 3055 | 48 |
| 13 | 5 | 5378 |  | 5902 | 2 | 9477 | 7 | 0523 | 47 |
| 14 | 5 | 6722 |  | 4714 | 3 | 2008 | 6 | 7992 | 46 |
| 15 | 5 | 8066 |  | 3526 | 3 | 4539 | 6 | 5461 | 45 |
| 16 | 5 | 9408 |  | 2338 | 3 | 7071 | 6 | 2929 | 44 |
| 17 | 6 | 0750 |  | 1148 | 3 | 9602 | 6 | 0398 | 43 |
| 18 | 6 | 2091 | 9861 | 9958 | 4 | 2133 | 5 | 7867 | 42 |
| 19 | 6 | 3431 |  | 8767 |  | 4664 | 5 | 5336 | 41 |
| 20 | 6 | 4771 |  | 7576 | 4 | 7195 | 5 | 2805 | 40 |
| 21 |  | 6109 |  | 6383 | 4 | 9726 | 5 | 0274 | 39 |
| 22 | 6 | 7447 |  | 5190 | 5 | 2257 | 4 | 7743 | 38 |
| 23 | 6 | 8784 |  | 3997 | 5 | 4787 | 4 | 5213 | 37 |
| 24 | 7 | 0121 |  | 2803 | 5 | 7318 | 4 | 2682 | 36 |
| 25 | 7 | 1456 |  | 1608 |  | 9849 | 4 | 0151 | 35 |
| 26 |  | 2791 |  | 0412 |  | 2379 | 3 | 7621 | 34 |
| 27 | 7 | 4125 | 9860 | 9215 | 6 | 4909 | 3 | 5091 | 33 |
| 28 | 7 | 5458 |  | 8018 |  | 7440 | 3 | 2560 | 32 |
| 29 | 7 | 6790 |  | 6821 | 6 | 9970 | 3 | 0030 | 31 |
| 30 | 7 | 8122 |  | 5622 | 7 | 2500 |  | 7500 | 30 |
|  |  |  | Sin. | . 46 |  |  | Tan. | 46 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 43 |  |  |  | Tan. 43 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9837 | 8122 | 9860 | 5622 | 9977 | 2500 | 10022 | 7500 | 30 |
| 31 | 7 | 9453 |  | 4423 | 7 | 5030 | 2 | 4970 | 29 |
| 32 | 8 | 0783 |  | 3223 | 7 | 7560 | 2 | 2440 | 28 |
| 33 | 8 | 2112 |  | 2022 |  | 0090 | 1 | 9910 | 27 |
| 34 | 8 | 3441 |  | 0821 | 8 | 2620 | 1 | 7380 | 26 |
| 35 | 8 | 4769 | 9859 | 9619 | 8 | 5149 | 1 | 4851 | 25 |
| 36 | 8 | 6096 |  | 8416 | 8 | 7679 | 1 | 2321 | 24 |
| 37 | 8 | 7422 |  | 7213 | 9 | 0209 | 0 | 9791 | 23 |
| 38 | 8 | 8747 |  | 6009 | 9 | 2738 | 0 | 7262 | 22 |
| 39 | 9 | 0072 |  | 4804 | 9 | 5268 | 0 | 4732 | 21 |
| 40 | 9 | 1396 |  | 3599 | 9 | 7797 | - | 2203 | 20 |
| 41 | 9 | 2719 |  | 2393 | 9980 | 0326 | 10019 | 9674 | 19 |
| 42 | 9 | 4041 |  | 1186 | 0 | 2856 | 9 | 7144 | 18 |
| 43 | 9 | 5363 | 9858 | 9978 | 0 | 5385 | 9 | 4615 | 17 |
| 44 | 9 | 6684 |  | 8770 | 0 | 7914 | 9 | 2086 | 16 |
| 45 | 9 | 8004 |  | 7561 | 1 | 0443 | 8 | 9557 | 15 |
| 46 | 9 | 9323 |  | 6351 | 1 | 2972 | 8 | 7028 | 14 |
| 47 | 9840 | 0642 |  | 5141 | 1 | 5501 | 8 | 4499 | 13 |
| 48 | 0 | 1959 |  | 3929 | 1 | 8030 | 8 | 1970 | 12 |
| 49 | 0 | 3276 |  | 2718 | 2 | 0559 | 7 | 9441 | 11 |
| 50 | 0 | 4593 |  | 1505 | 2 | 3087 | 7 | 6913 | 10 |
| 51 | 0 | 5908 |  | 0292 | 2 | 5616 | 7 | 4384 | 9 |
| 52 | 0 | 7223 | 9857 | 9078 | 2 | 8145 | 7 | 1855 | 8 |
| 53 | 0 | 8537 |  | 7863 | 3 | 0673 | 6 | 9327 | 7 |
| 54 | 0 | 9850 |  | 6648 | 3 | 3202 |  | 6798 | 6 |
| 55 | 1 | 1162 |  | 5432 | 3 | 5730 | 6 | 4270 | 5 |
| 56 | 1 | 2474 |  | 4215 | 3 | 8259 | 6 | 1741 | 4 |
| 57 | 1 | 3785 |  | 2998 | 4 | 0787 | 5 | 9213 | 3 |
| 58 | 1 | 5095 |  | 1779 | 4 | 3315 |  | 6685 | 2 |
| 59 | 1 | 6404 |  | 0561 | 4 | 5844 | 5 | 4156 | 1 |
| 60 | 1 | 7713 | 9856 | 9341 | 4 | 8372 | 5 | 1628 | 0 |
|  |  |  | Sin. | . 46 |  |  | Tan. | 46 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 44 |  |  |  | Tan. 44 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 9841 | 7713 | 9856 | 9341 | 9984 | 8372 | 10015 | 1628 | 60 |
| 1 | 1 | 9021 |  | 8121 | 5 | 0900 | 4 | 9100 | 59 |
| 2 | 2 | 0328 |  | 6900 | 5 | 3428 | 4 | 6572 | 58 |
| 3 | 2 | 1634 |  | 5678 | 5 | 5956 | 4 | 4044 | 57 |
| 4 | 2 | 2939 |  | 4455 | 5 | 8484 | 4 | 1516 | 56 |
| 5 | 2 | 4244 |  | 3232 | 6 | 1012 | 3 | 8988 | 55 |
| 6 | 2 | 5548 |  | 2008 | 6 | 3540 | 3 | 6460 | 54 |
| 7 | 2 | 6851 |  | 0784 | 6 | 6068 | 3 | 3932 | 53 |
| 8 | 2 | 8154 | 9855 | 9558 | 6 | 8596 | 3 | 1404 | 52 |
| 9 | 2 | 9456 |  | 8332 | 7 | 1123 | 2 | 8877 | 51 |
| 10 | 3 | 0757 |  | 7106 | 7 | 3651 | 2 | 6349 | 50 |
| 11 | 3 | 2057 |  | 5878 | 7 | 6179 | 2 | 3821 | 49 |
| 12 | 3 | 3356 |  | 4650 | 7 | 8706 | 2 | 1294 | 48 |
| 13 | 3 | 4655 |  | 3421 | 8 | 1234 | 1 | 8766 | 47 |
| 14 | 3 | 5953 |  | 2192 | 8 | 3761 | 1 | 6239 | 46 |
| 15 | 3 | 7250 |  | og61 | 8 | 6289 | 1 | 3711 | 45 |
| 16 | 3 | 8547 | 9854 | 9730 | 8 | 8816 | 1 | 1184 | 44 |
| 17 | 3 | 9842 |  | 8499 | 9 | 1344 | - | 8656 | 43 |
| 18 | 4 | 1137 |  | 7266 | 9 | 3871 | 0 | 6129 | 42 |
| 19 | 4 | 2432 |  | 6033 | 9 | 6399 | 0 | 3601 | 41 |
| 20 | 4 | 3725 |  | 4799 | 9 | 8926 | 0 | 1074 | 40 |
| 21 |  | 5018 |  | 3564 | 9990 | 1453 | 10009 | 8547 | 39 |
| 22 | 4 | 6310 |  | 2329 | 0 | 3981 | 9 | 6019 | 38 |
| 23 | 4 | 7601 |  | 1093 | 0 | 6508 | 9 | 3492 | 37 |
| 24 | 4 | 8891 | 9853 | 9856 | 0 | 9035 | 9 | 0965 | 36 |
| 25 | 5 | 0181 |  | 8619 | 1 | 1562 | 8 | 8438 | 35 |
| 26 | 5 | 1470 |  | 7381 | 1 | 4089 | 8 | 5911 | 34 |
| 27 | 5 | 2758 |  | 6142 | 1 | 6616 | 8 | 3384 | 33 |
| 28 | 5 | 4045 |  | 4902 | 1 | 9143 | 8 | 0857 | 32 |
| 29 | 5 | 5332 |  | 3662 | 2 | 1670 |  | 8330 | $3^{1}$ |
| 30 | 5 | 6618 |  | 2421 | 2 | 4197 |  | 5803 | 30 |
|  |  |  | Sin. | . 45 |  |  | Tan. | 45 | M |

Gunter's table (reconstruction, D. Roegel, 2010)

| M | Sin. 44 |  |  |  | Tan. 44 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30 | 9845 | 6618 | 9853 | 2421 | 9992 | 4197 | 10007 | 5803 | 30 |
| 31 | 5 | 7903 |  | 1179 | 2 | 6724 | 7 | 3276 | 29 |
| 32 | 5 | 9188 | 9852 | 9936 | 2 | 9251 | 7 | 0749 | 28 |
| 33 | 6 | 0471 |  | 8693 | 3 | 1778 | 6 | 8222 | 27 |
| 34 | 6 | 1754 |  | 7449 | 3 | 4305 | 6 | 5695 | 26 |
| 35 | 6 | 3036 |  | 6204 | 3 | 6832 | 6 | 3168 | 25 |
| 36 | 6 | 4318 |  | 4959 | 3 | 9359 | 6 | 0641 | 24 |
| 37 | 6 | 5599 |  | 3713 | 4 | 1886 | 5 | 8114 | 23 |
| 38 | 6 | 6879 |  | 2466 |  | 4413 | 5 | $55^{87}$ | 22 |
| 39 | 6 | 8158 |  | 1218 | 4 | 6940 | 5 | 3060 | 21 |
| 40 | 6 | 9436 | 9851 | 9970 |  | 9466 | 5 | 0534 | 20 |
| 41 | 7 | 0714 |  | 8721 | 5 | 1993 | 4 | 8007 | 19 |
| 42 | 7 | 1991 |  | 7471 | 5 | 4520 | 4 | 5480 | 18 |
| 43 | 7 | 3267 |  | 6220 | 5 | 7047 | 4 | 2953 | 17 |
| 44 | 7 | 4543 |  | 4969 | 5 | 9573 | 4 | 0427 | 16 |
| 45 | 7 | 5817 |  | 3717 | 6 | 2100 | 3 | 7900 | 15 |
| 46 | 7 | 7091 |  | 2465 | 6 | 4627 | 3 | 5373 | 14 |
| 47 | 7 | 8365 |  | 1211 |  | 7154 | 3 | 2846 | 13 |
| 48 | 7 | 9637 | 9850 | 9957 | 6 | 9680 | 3 | 0320 | 12 |
| 49 | 8 | 0909 |  | 8702 | 7 | 2207 | 2 | 7793 | 11 |
| 50 | 8 | 2180 |  | 7446 | 7 | 4734 | 2 | 5266 | 10 |
| 51 | 8 | 3450 |  | 6190 | 7 | 7260 | 2 | 2740 | 9 |
| 52 | 8 | 4720 |  | 4933 | 7 | 9787 | 2 | 0213 | 8 |
| 53 | 8 | 5989 |  | 3675 | 8 | 2314 | 1 | 7686 | 7 |
| 54 | 8 | 7257 |  | 2417 | 8 | 4840 | 1 | 5160 | 6 |
| 55 | 8 | 8524 |  | 1157 |  | 7367 |  | 2633 | 5 |
| 56 | 8 | 9791 | 9849 | 9897 | 8 | 9893 |  | 0107 | 4 |
| 57 | 9 | 1057 |  | 8637 |  | 2420 | 0 | 7580 | 3 |
| 58 | 9 | 2322 |  | 7375 | 9 | 4947 | 0 | 5053 | 2 |
| 59 | 9 | 3586 |  | 6113 | 9 | 7473 | - | 2527 | 1 |
| 60 | 9 | 4850 |  | 4850 | 10000 | 0000 | 10000 | 0000 | 0 |
|  |  |  | Sin. | . 45 |  |  | Tan. | 45 | M |

## Lectori practicæ Matheseos studioso S. P.

CAnon noster vsum habet, in triangulorũ sphæricorum solutione eundem quem tabulæ sinuum rectorum \& tangentium ab alijs editæ, sed praxin paulò faciliorem. Nam eorum multiplicationem per additionem, eorum diuisionem per subtractionem euitamus. Nex pluribus opus est aut præceptis aut exemplis. Idem si desideres in triangulis rectilinejs, adiunge nostris, Amici \& Collegæ Henrici Briggy Logarithmos. Nam eo nitimur fundamento, eodem vtimur operandi modo.
Vale \& si hæc tibi grata fuerint, plura a nobis in hoc genere expecta.
FINIS.


[^0]:    ${ }^{1}$ For good biographical summaries of Gunter, see Cotter [9] and Gray [16].
    ${ }^{2}$ Gresham College was a very fluctuating institution, and the main reason for its claim to scientific responsability was the work and influence of Briggs. The flourishing period of Gresham College ended with the death of Henry Gellibrand in 1636 [1, p. 20].
    ${ }^{3}$ We refer the reader to our study on Napier for more details on the origins of slide rules [35]. See also the articles by Robertson [29] and Nicholson [25].
    ${ }^{4}$ There was apparently also an English edition, perhaps published in 1620 or 1623, but we have not seen it.

[^1]:    ${ }^{5}$ The accumulation of errors was also described later by Prony [38].

[^2]:    ${ }^{6}$ Note on the titles of the works: Original titles come with many idiosyncrasies and features (line splitting, size, fonts, etc.) which can often not be reproduced in a list of references. It has therefore seemed pointless to capitalize works according to conventions which not only have no relation with the original work, but also do not restore the title entirely. In the following list of references, most title words (except in German) will therefore be left uncapitalized. The names of the authors have also been homogenized and initials expanded, as much as possible.

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

