

25985

座標增值表

內部參考
非賣品

教師參考室
陳列圖書不得携出室外

上海市房地產管理局測量總隊

一九五五年四月印製

坐標增值表用法舉例

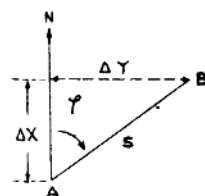
I. 本表係根據銳角的函數值按 10.20.30.40.50.60.70.80.90 等距離數計算出坐標增加數值而製成的各角相隔 1' 凡整度數分數的銳角按距離由本表可直接查得一點對於另一點的坐標增加值。

例 I：已知 A 點至 B 點的方位角為 30° ，而這兩點間的距離為 36 公尺試求 B 點對於 A 點縱橫距。

解：依三角法 B 對於 A 的縱距 $\Delta X = S \cos \varphi$

B 對於 A 的橫距 $\Delta Y = S \sin \varphi$

方位角 φ	距離 S	縱距 ΔX	橫距 ΔY
30 00 00	30 00	25.981	15.000
	6 00	5.196	3.000
30 00 00	36 00	31.177	18.000
已知件		所求件	



採用兩位小數 $\Delta X = 31.18$ 公尺
 $\Delta Y = 18.00$ 公尺

說明：縱距 25.981 是由 $\cos. 30^\circ$ 表中第一行的距離為 30 與第一列的 0' 的一行相交會的地方檢得，縱距 5.196 是由同表中第一行的 60 與第一列 0' 的一行相交處檢得 5.196 的十分之一。這兩個縱距加起來就得到 $30 \cos. 30^\circ 0' + 6 \cos. 30^\circ 0' = 36 \cos. 30^\circ 0' = 31.177$ 用同樣方法求得 $30 \sin. 30^\circ 0' + 6 \sin. 30^\circ 0' = 36 \sin. 30^\circ 0' = 18.000$ 。

例 II：已知 A 點至 B 的方位角為 $87^\circ 26'$ ，而這兩點的距離為 125 公尺試求 B 點對於 A 點縱橫距。

解：

方位角 φ	距離 S	縱距 ΔX	橫距 ΔY
87 26 00	100 00	4.478	99.900
	20 00	0.896	19.980
	5 00	2239	4.995
87 26 00	125 00	5.5979	124.875

採用兩位小數 $\Delta X = 5.60$
 $\Delta Y = 124.87$

2. 如果距離有小數的則整數部分仍按上法計算而小數部分可查十分之一及百分之一公尺數的改正附表附表的左邊第一列爲十分之一的公尺數附表的右端第一行爲百分之一的公尺數附表分四組共有八個左邊上面豎列的兩個一組是用來改正左邊大表 29' 以上坐標增加值的同側下面豎列的兩個一組是用來改正左邊大表 30' 以下坐標增加值的 29' 和 30' 之間有一根直線分劃着的同樣右邊上下兩組是用來改正右邊大表內坐標增加值的查得的改正值都應加到整尺數所得的數值內。

例Ⅲ：已知 A 點至 B 點的方位角爲 30° 而這兩點的距離爲 36.73 公尺試求 B 點對於 A 點的縱橫距。

解：

方位角 φ	距離 S	縱距 Δx	橫距 Δy
30 00 00	30.00	25.981	15.000
	6.50	5.196	3.000
	0.73	0.63	0.37
30 00 00	36.73	31.81	18.37

說明：縱距 0.63 是 30° 表的上邊附表中第一列的 $\frac{7}{10}$ 距離數 (7) 與第一行的 $\frac{3}{100}$ 距離數 (3) 的一列相交會的地方檢得同樣橫距檢得爲 0.37。

例Ⅳ：已知 A 點至 B 點的方位角爲 $87^\circ 26'$ 而這兩點的距離爲 125.36 公尺試求 B 點對 A 點的縱橫距。

解：

方位角 φ	距離 S	縱距 Δx	橫距 Δy
87 26 00	100.00	4.478	99.900
	20.00	0.896	19.980
	5.00	0.2239	4.995
	0.36	0.02	0.36
87 26 00	125.36	5.62	125.24

3. 如查 $64^\circ 25' 36''$ 的角則因表中沒有列入這個角值但整度數分數可按上法計算而秒數可化爲分數。

秒數	0	1	2	3	4	5	6	7	8	9
0	0	02	03	05	07	08	10	12	13	15
10	17	18	20	22	23	25	27	28	30	32
20	33	35	37	38	40	42	43	45	47	48
30	50	52	53	55	57	58	60	62	63	65
40	67	68	70	72	73	75	77	78	80	82
50	83	85	87	88	90	92	93	95	97	98

檢查“十分之一的改正”附表，附表左邊的第一列為十分之一的分數，附表上端第一行是從坐標增加值算出的表差，附表共有四個列在“十分之一及百分之一部分公尺數改正”附表之間，不論檢查的是正弦或餘弦，都能適用。

例 V：已知 A 點至 B 點的方位角為 $64^{\circ} 25' 36''$ ，而這兩點間的距離為 72.49 公尺，試求 B 點對於 A 點的縱橫坐標。

方位角 φ	距離 S	縱距 ΔX	橫距 ΔY
64 25.6	70 00	30 22	63 14
	2 00	0 8633	1 8041
	0 49	0 21	0 44
64 25 36	72 49	31 29	65 38

說明：先查出表差 2（即由 0.02 之小數第二位為單位者），再在附表中查 2 的一列中對應附表第一列 6（附表第一列所列的十分之一分）的一行相交處得 1.2，即改正數為 -0.012，這裡須注意的，因為從 $64^{\circ} 25'$ 增加至 $64^{\circ} 26'$ 時，它的餘弦是減少的，而 $\cos 64^{\circ} 25' 6''$ 界在 $\cos 64^{\circ} 25'$ 和 $64^{\circ} 26'$ 中間，所以要用負數而得 $70 \cos 64^{\circ} 25' 6'' = 30.23 - 0.01 = 30.22$ 。

茲更用插值法說明於下：

$$\left\{ \begin{array}{l} 70 \cos 64^{\circ} 25' = 30.23 \\ 70 \cos 64^{\circ} 25' 6'' = \end{array} \right\} \times \text{表差} \quad \text{則 } \frac{x}{0.02} = \frac{0.6}{1} \therefore x = \frac{0.6}{1} (-0.02) = -0.012$$

-0.02 所以 $70 \cos 64^{\circ} 25' 6'' = 30.22$

$70 \cos 64^{\circ} 26' = 30.21$

$$1 \left\{ \begin{array}{l} 0.6 \left\{ \begin{array}{l} 2 \cos 64^\circ 25' = 0.8636 \\ 2 \cos 64^\circ 25.6' = \\ 2 \cos 64^\circ 26' = 0.8631 \end{array} \right\} \times \left. \begin{array}{l} \text{表差} \\ -0.0005 \end{array} \right\}$$

$$\text{則 } \frac{x}{-0.0005} = \frac{0.6}{1} \therefore x = \frac{0.6}{1} (-0.0005) = -0.0003, \text{ 這數已極微小, 故略不改正, 至 } 0.49 \text{ 尺更不必改正了。}$$

$$1 \left\{ \begin{array}{l} 0.6 \left\{ \begin{array}{l} 70 \sin 64^\circ 25' = 63.14 \\ 70 \sin 64^\circ 25.6' = \\ 70 \sin 64^\circ 26' = 63.15 \end{array} \right\} \times \left. \begin{array}{l} \text{表差} \\ +0.01 \end{array} \right\}$$

$$\text{則 } \frac{x}{+0.01} = \frac{0.6}{1} \therefore x = \frac{0.6}{1} (+0.01) = +0.0006, \text{ 這數的影響不大故略不改正。}$$

4. 如查一個大於 90° (或 180° 或 270°) 的角的函數, 設 θ 為任意角, 則先在表的上端 (或下端) 正中查出 $\theta - 90^\circ$ (或 $\theta - 180^\circ$ 或 $\theta - 270^\circ$) 的整度數, 然後在表的四角檢到所要查的度數, 順矢尖 "↓" 指示的方向, 從上到下 (或從下到上) 查出分數, 其餘方法和前面 1. 2. 3. 節一樣, 但查得的結果, 它的符號就是四角上的度數前面記載的符號。

例VI: 由下表所列的已知件, 求出各兩點間的縱橫距。

已知件			計算結果	
點號	方位角 P	距離 S	縱距 ΔX	橫距 ΔY
1	98 16 20	270.35	-38 89	+267 54
2	274 35 30	69.08	+5 53	-68 86
3	176 41 45	36.14	-36 08	+2 09
4	355 03 52	27.46	+27 36	-2 36
5	244 12 10	142.79	-62 14	-128 56
6	235 20 22	45.23	-25 72	-37 20
7	214 00 40	98.91	-81 98	-55 33
8	196 57 18	53.52	-51 20	-15 61
9				

解:

$98^{\circ}16'20'' = 98^{\circ}16'.33$ 先查得 8 的表, 左下角得 98°

200 00	- 28 78	+ 197 92
70 00	- 10 06	+ 69 27
0 35	- 0 05	+ 0 35
	- 38 89	+ 267 54

$244^{\circ}12'10'' = 244^{\circ}12'.17$ 先查得 64° 的表, 右下角得 244°

100 00	- 43 519	- 90 034
42 00	- 17 407	- 36 014
2 00	- 0 870	- 1 807
79	- 0 34	- 0 71
	- 62 14	- 128 56

$274^{\circ}35'30'' = 274^{\circ}35'.5$ 先查得 4 的表, 左下角得 274°

60 00	+ 4 80	- 59 81
9 00	+ 0 72	- 8 971
08	+ 0 01	- 0 08
	+ 5 53	68 86

$235^{\circ}20'22'' = 235^{\circ}20'.37$ 先查得 55° 的表, 右下角得 235°

40 00	- 22 748	- 32 902
5 00	- 2 8436	- 4 1127
23	- 0 13	- 0 19
	- 25 72	- 37 20

$176^{\circ}41'45'' = 176^{\circ}41'.75$ 先查得 86° 的表, 右下角得 176°

30 00	- 29 950	+ 1 729
6 00	- 5 990	+ 0 346
14	- 0 14	+ 0 01
	- 36 08	+ 2 09

$214^{\circ}00'40'' = 214^{\circ}0'.67$ 先查得 34° 的表, 左上角得 214°

90 00	- 74 60	- 50 34
8 00	- 6 631	- 4 475
91	- 0 75	- 0 51
	- 81 98	- 55 33

$355^{\circ}03'52'' = 355^{\circ}03'.87$ 先查得 85° 的表, 左上角得 355°

20 00	+ 19 926	- 1 721
7 00	+ 6 974	- 0 602
46	+ 0 46	- 0 04
	+ 27 36	- 2 36

$196^{\circ}57'18'' = 196^{\circ}57'.3$ 先查得 16° 的表, 左上角得 196°

50 00	- 47 827	- 14 581
3 00	- 2 8696	- 0 8748
52	- 0 50	- 0 15
	- 51 20	- 15 61

180°
0°

Cos

0°

Δx

88° +
178° -

	10	20	30	40	50	60	70	80	90	
0	10,0000	20,0000	30,0000	40,0000	50,0000	60,0000	70,0000	80,0000	90,0000	60
1	10,0000	20,0000	30,0000	40,0000	50,0000	60,0000	70,0000	80,0000	90,0000	59
2	10,0000	20,0000	30,0000	40,0000	50,0000	60,0000	70,0000	80,0000	90,0000	58
3	10,0000	20,0000	30,0000	40,0000	50,0000	60,0000	70,0000	80,0000	90,0000	57
4	10,0000	20,0000	30,0000	40,0000	50,0000	60,0000	70,0000	80,0000	90,0000	56
5	10,0000	20,0000	30,0000	40,0000	50,0000	60,0000	70,0000	80,0000	90,0000	55
6	10,0000	20,0000	30,0000	40,0000	50,0000	60,0000	70,0000	80,0000	90,0000	54
7	10,0000	20,0000	30,0000	40,0000	50,0000	60,0000	70,0000	80,0000	90,0000	53
8	10,0000	20,0000	30,0000	40,0000	50,0000	60,0000	70,0000	80,0000	90,0000	52
9	10,0000	20,0000	30,0000	40,0000	50,0000	60,0000	70,0000	80,0000	90,0000	51
10	10,0000	20,0000	30,0000	40,0000	50,0000	60,0000	70,0000	80,0000	90,0000	50
11	9,9999	20,0000	30,0000	40,0000	50,0000	60,0000	70,0000	80,0000	90,0000	49
12	9,9999	20,0000	30,0000	40,0000	50,0000	60,0000	70,0000	80,0000	90,0000	48
13	9,9999	20,0000	30,0000	40,0000	50,0000	60,0000	70,0000	80,0000	90,0000	47
14	9,9999	20,0000	30,0000	40,0000	50,0000	60,0000	70,0000	80,0000	90,0000	46
15	9,9999	20,0000	30,0000	40,0000	50,0000	60,0000	70,0000	80,0000	90,0000	45
16	9,9999	20,0000	30,0000	40,0000	49,9999	60,0000	70,0000	80,0000	90,0000	44
17	9,9999	20,0000	30,0000	40,0000	49,9999	60,0000	70,0000	80,0000	90,0000	43
18	9,9999	20,0000	30,0000	39,9999	49,9999	60,0000	70,0000	80,0000	90,0000	42
19	9,9998	20,0000	30,0000	39,9999	49,9999	60,0000	70,0000	80,0000	90,0000	41
20	9,9998	20,0000	29,9999	39,9999	49,9999	60,0000	70,0000	80,0000	90,0000	40
21	9,9998	20,0000	29,9999	39,9999	49,9999	60,0000	70,0000	80,0000	90,0000	39
22	9,9998	20,0000	29,9999	39,9999	49,9999	60,0000	70,0000	80,0000	90,0000	38
23	9,9998	20,0000	29,9999	39,9999	49,9999	60,0000	70,0000	80,0000	90,0000	37
24	9,9998	20,0000	29,9999	39,9999	49,9999	60,0000	70,0000	80,0000	90,0000	36
25	9,9997	19,9999	29,9999	39,9999	49,9999	60,0000	70,0000	80,0000	90,0000	35
26	9,9997	19,9999	29,9999	39,9999	49,9999	60,0000	70,0000	80,0000	90,0000	34
27	9,9997	19,9999	29,9999	39,9999	49,9998	60,0000	70,0000	80,0000	90,0000	33
28	9,9997	19,9999	29,9999	39,9999	49,9998	60,0000	70,0000	80,0000	90,0000	32
29	9,9996	19,9999	29,9999	39,9999	49,9998	60,0000	70,0000	80,0000	90,0000	31
30	9,9996	19,9999	29,9999	39,9998	49,9998	60,0000	70,0000	80,0000	90,0000	30
31	9,9996	19,9999	29,9999	39,9998	49,9998	60,0000	70,0000	80,0000	90,0000	29
32	9,9996	19,9999	29,9999	39,9998	49,9998	60,0000	70,0000	80,0000	90,0000	28
33	9,9995	19,9999	29,9999	39,9998	49,9998	60,0000	70,0000	80,0000	90,0000	27
34	9,9995	19,9999	29,9999	39,9998	49,9998	60,0000	70,0000	80,0000	90,0000	26
35	9,9995	19,9999	29,9998	39,9998	49,9997	60,0000	70,0000	80,0000	90,0000	25
36	9,9995	19,9999	29,9998	39,9998	49,9997	60,0000	70,0000	80,0000	90,0000	24
37	9,9994	19,9999	29,9998	39,9998	49,9997	60,0000	70,0000	80,0000	89,9999	23
38	9,9994	19,9999	29,9998	39,9998	49,9997	60,0000	70,0000	80,0000	89,9999	22
39	9,9994	19,9999	29,9998	39,9997	49,9997	60,0000	70,0000	79,9999	89,9999	21
40	9,9993	19,9999	29,9998	39,9997	49,9997	60,0000	70,0000	79,9999	89,9999	20
41	9,9993	19,9999	29,9998	39,9997	49,9996	60,0000	70,0000	79,9999	89,9999	19
42	9,9993	19,9999	29,9998	39,9997	49,9996	60,0000	69,9999	79,9999	89,9999	18
43	9,9992	19,9998	29,9998	39,9997	49,9996	60,0000	69,9999	79,9999	89,9999	17
44	9,9992	19,9998	29,9998	39,9997	49,9996	60,0000	69,9999	79,9999	89,9999	16
45	9,9991	19,9998	29,9997	39,9997	49,9996	59,9999	69,9999	79,9999	89,9999	15
46	9,9991	19,9998	29,9997	39,9996	49,9996	59,9999	69,9999	79,9999	89,9999	14
47	9,9991	19,9998	29,9997	39,9996	49,9995	59,9999	69,9999	79,9999	89,9999	13
48	9,9990	19,9998	29,9997	39,9996	49,9995	59,9999	69,9999	79,9999	89,9999	12
49	9,9990	19,9998	29,9997	39,9996	49,9995	59,9999	69,9999	79,9999	89,9999	11
50	9,9989	19,9998	29,9997	39,9996	49,9995	59,9999	69,9999	79,9999	89,9999	10
51	9,9989	19,9998	29,9997	39,9996	49,9994	59,9999	69,9999	79,9999	89,9999	9
52	9,9989	19,9998	29,9997	39,9995	49,9994	59,9999	69,9999	79,9999	89,9999	8
53	9,9988	19,9998	29,9996	39,9995	49,9994	59,9999	69,9999	79,9999	89,9999	7
54	9,9988	19,9998	29,9996	39,9995	49,9994	59,9999	69,9999	79,9999	89,9999	6
55	9,9987	19,9997	29,9996	39,9995	49,9994	59,9999	69,9999	79,9999	89,9999	5
56	9,9987	19,9997	29,9996	39,9995	49,9993	59,9999	69,9999	79,9999	89,9999	4
57	9,9986	19,9997	29,9996	39,9995	49,9993	59,9999	69,9999	79,9999	89,9999	3
58	9,9986	19,9997	29,9996	39,9994	49,9993	59,9999	69,9999	79,9999	89,9999	2
59	9,9985	19,9997	29,9996	39,9994	49,9993	59,9999	69,9999	79,9999	89,9999	1
60	9,9985	19,9997	29,9995	39,9994	49,9992	59,9999	69,9999	79,9999	89,9999	0
	10	20	30	40	50	60	70	80	90	

180°
270°

Δy

89°

Sin

88° +
268° -

十分之一及百分之一公尺数的改正

0	1	2	3	4
0	00	01	02	03
1	10	11	12	13
2	20	21	22	23
3	30	31	32	33
4	40	41	42	43
5	50	51	52	53
6	60	61	62	63
7	70	71	72	73
8	80	81	82	83
9	90	91	92	93

5	6	7	8	9
0	05	06	07	08
1	15	16	17	18
2	25	26	27	28
3	35	36	37	38
4	45	46	47	48
5	55	56	57	58
6	65	66	67	68
7	75	76	77	78
8	85	86	87	88
9	95	96	97	98

十分之一的改正

1	2	3	5
1	0.2	0.8	0.5
2	0.4	0.6	1.0
3	0.6	0.9	1.5
4	0.8	1.2	2.0
5	1.0	1.5	2.5
6	1.2	1.8	3.0
7	1.4	2.1	3.5
8	1.6	2.4	4.0
9	1.8	2.7	4.5

6	8	9
1	0.6	0.8
2	1.2	1.6
3	1.8	2.4
4	2.4	3.2
5	3.0	4.0
6	3.6	4.8
7	4.2	5.6
8	4.8	6.4
9	5.4	7.2

十分之一及百分之一公尺数的改正

0	1	2	3	4
0	00	01	02	03
1	10	11	12	13
2	20	21	22	23
3	30	31	32	33
4	40	41	42	43
5	50	51	52	53
6	60	61	62	63
7	70	71	72	73
8	80	81	82	83
9	90	91	92	93

5	6	7	8	9
0	05	06	07	08
1	15	16	17	18
2	25	26	27	28
3	35	36	37	38
4	45	46	47	48
5	55	56	57	58
6	65	66	67	68
7	75	76	77	78
8	85	86	87	88
9	95	96	97	98

-180°
+ 0°

Sin

0°

Δy

89°
+ 179°
+ 180°

十分之一及百分之一公尺数的改正

	0	1	2	3	4
0	00	00	00	00	00
1	00	00	00	00	00
2	00	00	00	00	00
3	00	00	00	00	00
4	00	00	00	00	00
5	00	00	00	00	00
6	00	00	00	00	00
7	00	00	00	00	00
8	00	00	00	00	00
9	00	00	00	00	00

	5	6	7	8	9
0	00	00	00	00	00
1	00	00	00	00	00
2	00	00	00	00	00
3	00	00	00	00	00
4	00	00	00	00	00
5	00	00	00	00	00
6	00	00	00	00	00
7	00	00	00	00	00
8	00	00	00	00	00
9	00	00	00	00	00

十分之一的改正

	11	12	14
1	1.1	1.2	1.4
2	2.2	2.4	2.8
3	3.3	3.6	4.2
4	4.4	4.8	5.6
5	5.5	6.0	7.0
6	6.6	7.2	8.4
7	7.7	8.4	9.8
8	8.8	9.6	11.2
9	9.9	10.8	12.6

	15	29	30
1	1.5	2.9	3.0
2	3.0	5.8	6.0
3	4.5	8.7	9.0
4	6.0	11.6	12.0
5	7.5	14.5	15.0
6	9.0	17.4	18.0
7	10.5	20.3	21.0
8	12.0	23.2	24.0
9	13.5	26.1	27.0

十分之一及百分之一公尺数的改正

	0	1	2	3	4
0	00	00	00	00	00
1	00	00	00	00	00
2	00	00	00	00	00
3	00	00	00	00	00
4	01	01	01	01	01
5	01	01	01	01	01
6	01	01	01	01	01
7	01	01	01	01	01
8	01	01	01	01	01
9	01	01	01	01	01

	5	6	7	8	9
0	00	00	00	00	00
1	00	00	00	00	00
2	00	00	00	00	00
3	01	01	01	01	01
4	01	01	01	01	01
5	01	01	01	01	01
6	01	01	01	01	01
7	01	01	01	01	01
8	01	01	01	01	01
9	01	01	01	01	01

	10	20	30	40	50	60	70	80	90	
0	0.0000	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00	60
1	0.0029	0.006	0.009	0.012	0.015*	0.02	0.02	0.02	0.03	59
2	0.0058	0.012	0.017	0.023	0.029	0.03	0.04	0.05*	0.05	58
3	0.0087	0.017	0.026	0.035*	0.044	0.05	0.06	0.07	0.08	57
4	0.0116	0.023	0.035*	0.047	0.058	0.07	0.08	0.09	0.10	56
5	0.0145	0.029	0.044	0.058	0.073	0.09	0.10	0.12	0.13	55
6	0.0175*	0.035*	0.052	0.070	0.087	0.10	0.12	0.14	0.16	54
7	0.0204	0.041	0.061	0.081	0.102	0.12	0.14	0.16	0.18	53
8	0.0233	0.047	0.070	0.093	0.116	0.14	0.16	0.19	0.21	52
9	0.0262	0.052	0.079	0.105*	0.131	0.16	0.18	0.21	0.24	51
10	0.0291	0.058	0.087	0.116	0.145	0.17	0.20	0.23	0.26	50
11	0.0320	0.064	0.096	0.128	0.160	0.19	0.22	0.26	0.29	49
12	0.0349	0.070	0.105*	0.140	0.175*	0.21	0.24	0.28	0.31	48
13	0.0378	0.076	0.113	0.151	0.189	0.23	0.26	0.30	0.34	47
14	0.0407	0.081	0.122	0.163	0.204	0.24	0.29	0.33	0.37	46
15	0.0436	0.087	0.131	0.175*	0.218	0.26	0.31	0.35*	0.39	45
16	0.0465	0.093	0.140	0.186	0.233	0.28	0.33	0.37	0.42	44
17	0.0495*	0.099	0.148	0.198	0.247	0.30	0.35*	0.40	0.45*	43
18	0.0524	0.105*	0.157	0.209	0.262	0.31	0.37	0.42	0.47	42
19	0.0553	0.111	0.166	0.221	0.276	0.33	0.39	0.44	0.50*	41
20	0.0582	0.116	0.175*	0.233	0.291	0.35*	0.41	0.47	0.52	40
21	0.0611	0.122	0.183	0.244	0.305	0.37	0.43	0.49	0.55*	39
22	0.0640	0.128	0.192	0.256	0.320	0.38	0.45*	0.51	0.58	38
23	0.0669	0.134	0.201	0.268	0.334	0.40	0.47	0.54	0.60	37
24	0.0698	0.140	0.209	0.279	0.349	0.42	0.49	0.56	0.63	36
25	0.0727	0.145	0.218	0.291	0.364	0.44	0.51	0.58	0.65	35
26	0.0756	0.151	0.227	0.303	0.378	0.45	0.53	0.61	0.68	34
27	0.0785	0.157	0.236	0.314	0.393	0.47	0.55*	0.63	0.71	33
28	0.0814	0.163	0.244	0.326	0.407	0.49	0.57	0.65	0.73	32
29	0.0844	0.169	0.253	0.337	0.422	0.51	0.59	0.67	0.76	31
30	0.0873	0.175*	0.262	0.349	0.436	0.52	0.61	0.70	0.79	30
31	0.0902	0.180	0.271	0.361	0.451	0.54	0.63	0.72	0.81	29
32	0.0931	0.186	0.279	0.372	0.465	0.56	0.65	0.74	0.84	28
33	0.0960	0.192	0.288	0.384	0.480	0.58	0.67	0.77	0.86	27
34	0.0989	0.198	0.297	0.396	0.494	0.59	0.69	0.79	0.89	26
35	0.1018	0.204	0.305	0.407	0.509	0.61	0.71	0.81	0.92	25
36	0.1047	0.209	0.314	0.419	0.524	0.63	0.73	0.84	0.94	24
37	0.1076	0.215	0.323	0.431	0.538	0.65*	0.75	0.86	0.97	23
38	0.1105	0.221	0.332	0.442	0.553	0.66	0.77	0.88	0.99	22
39	0.1134	0.227	0.340	0.454	0.567	0.68	0.79	0.91	1.02	21
40	0.1164	0.233	0.349	0.465	0.582	0.70	0.81	0.93	1.05*	20
41	0.1193	0.239	0.358	0.477	0.596	0.72	0.83	0.95	1.07	19
42	0.1222	0.244	0.367	0.489	0.611	0.73	0.86	0.98	1.10	18
43	0.1251	0.250	0.375	0.500	0.625	0.75	0.88	1.00	1.13	17
44	0.1280	0.256	0.384	0.512	0.640	0.77	0.90	1.02	1.15	16
45	0.1309	0.262	0.393	0.524	0.654	0.79	0.92	1.05*	1.18	15
46	0.1338	0.268	0.401	0.535	0.669	0.80	0.94	1.07	1.20	14
47	0.1367	0.273	0.410	0.547	0.681	0.82	0.96	1.09	1.23	13
48	0.1396	0.279	0.419	0.558	0.698	0.84	0.98	1.12	1.26	12
49	0.1425	0.285	0.428	0.570	0.713	0.86	1.00	1.14	1.28	11
50	0.1454	0.291	0.436	0.582	0.727	0.87	1.02	1.16	1.31	10
51	0.1483	0.297	0.445	0.593	0.742	0.89	1.04	1.19	1.34	9
52	0.1513	0.303	0.454	0.605	0.756	0.91	1.06	1.21	1.36	8
53	0.1542	0.308	0.462	0.617	0.771	0.92	1.08	1.23	1.39	7
54	0.1571	0.314	0.471	0.628	0.785	0.94	1.10	1.26	1.41	6
55	0.1600	0.320	0.480	0.640	0.800	0.96	1.12	1.28	1.44	5
56	0.1629	0.326	0.489	0.652	0.814	0.98	1.14	1.30	1.47	4
57	0.1658	0.332	0.497	0.663	0.829	0.99	1.16	1.33	1.49	3
58	0.1687	0.337	0.506	0.675*	0.844	1.01	1.18	1.35*	1.52	2
59	0.1716	0.343	0.515*	0.686	0.858	1.03	1.20	1.37	1.54	1
60	0.1745	0.349	0.524	0.698	0.873	1.05*	1.22	1.40	1.57	0

- 90°
+ 270°

Δx

89°

Cos

89°
+ 269°
+ 270°

-181°
+ 1°

Cos

1°

Δx

358° +
178°

	10	20	30	40	50	60	70	80	90	
0	9,9985*	19,997	29,995	39,994	49,992	59,99	69,99	79,99	89,99	60
1	9,9984	19,997	29,995	39,994	49,992	59,99	69,99	79,99	89,99	59
2	9,9984	19,997	29,995	39,993	49,992	59,99	69,99	79,99	89,99	58
3	9,9983	19,997	29,995*	39,993	49,992	59,99	69,99	79,99	89,98	57
4	9,9983	19,997	29,995*	39,993	49,991	59,99	69,99	79,99	89,98	56
5	9,9982	19,996	29,995*	39,993	49,991	59,99	69,99	79,99	89,98	55
6	9,9982	19,996	29,994	39,993	49,991	59,99	69,99	79,99	89,98	54
7	9,9981	19,996	29,994	39,992	49,990	59,99	69,99	79,98	89,98	53
8	9,9980	19,996	29,994	39,992	49,990	59,99	69,99	79,98	89,98	52
9	9,9980	19,996	29,994	39,992	49,990	59,99	69,99	79,98	89,98	51
10	9,9979	19,996	29,994	39,992	49,990	59,99	69,99	79,98	89,98	50
11	9,9979	19,996	29,994	39,991	49,989	59,99	69,99	79,98	89,98	49
12	9,9978	19,996	29,993	39,991	49,989	59,99	69,98	79,98	89,98	48
13	9,9977	19,995	29,993	39,991	49,989	59,99	69,98	79,98	89,98	47
14	9,9977	19,995	29,993	39,991	49,988	59,99	69,98	79,98	89,98	46
15	9,9976	19,995	29,993	39,990	49,988	59,99	69,98	79,98	89,98	45
16	9,9976	19,995	29,993	39,990	49,988	59,99	69,98	79,98	89,98	44
17	9,9975*	19,995*	29,992	39,990	49,987	59,98	69,98	79,98	89,98	43
18	9,9974	19,995*	29,992	39,990	49,987	59,98	69,98	79,98	89,98	42
19	9,9974	19,995*	29,992	39,989	49,987	59,98	69,98	79,98	89,98	41
20	9,9973	19,995*	29,992	39,989	49,986	59,98	69,98	79,98	89,98	40
21	9,9972	19,994	29,992	39,989	49,986	59,98	69,98	79,98	89,98	39
22	9,9972	19,994	29,991	39,989	49,986	59,98	69,98	79,98	89,97	38
23	9,9971	19,994	29,991	39,988	49,985	59,98	69,98	79,98	89,97	37
24	9,9970	19,994	29,991	39,988	49,985	59,98	69,98	79,98	89,97	36
25	9,9969	19,994	29,991	39,988	49,985*	59,98	69,98	79,98	89,97	35
26	9,9969	19,994	29,991	39,987	49,984	59,98	69,98	79,97	89,97	34
27	9,9968	19,994	29,990	39,987	49,984	59,98	69,98	79,97	89,97	33
28	9,9967	19,993	29,990	39,987	49,984	59,98	69,98	79,97	89,97	32
29	9,9966	19,993	29,990	39,987	49,983	59,98	69,98	79,97	89,97	31
30	9,9966	19,993	29,990	39,986	49,983	59,98	69,98	79,97	89,97	30
31	9,9965*	19,993	29,989	39,986	49,982	59,98	69,98	79,97	89,97	29
32	9,9964	19,993	29,989	39,986	49,982	59,98	69,97	79,97	89,97	28
33	9,9963	19,993	29,989	39,985	49,982	59,98	69,97	79,97	89,97	27
34	9,9963	19,993	29,989	39,985	49,981	59,98	69,97	79,97	89,97	26
35	9,9962	19,992	29,989	39,985*	49,981	59,98	69,97	79,97	89,97	25
36	9,9961	19,992	29,988	39,984	49,980	59,98	69,97	79,97	89,96	24
37	9,9960	19,992	29,988	39,984	49,980	59,98	69,97	79,97	89,96	23
38	9,9959	19,992	29,988	39,984	49,980	59,98	69,97	79,97	89,96	22
39	9,9959	19,992	29,988	39,983	49,979	59,98	69,97	79,97	89,96	21
40	9,9958	19,992	29,987	39,983	49,979	59,97	69,97	79,97	89,96	20
41	9,9957	19,991	29,987	39,983	49,978	59,97	69,97	79,97	89,96	19
42	9,9956	19,991	29,987	39,982	49,978	59,97	69,97	79,96	89,96	18
43	9,9955	19,991	29,987	39,982	49,978	59,97	69,97	79,96	89,96	17
44	9,9954	19,991	29,986	39,982	49,977	59,97	69,97	79,96	89,96	16
45	9,9953	19,991	29,986	39,981	49,977	59,97	69,97	79,96	89,96	15
46	9,9952	19,990	29,986	39,981	49,976	59,97	69,97	79,96	89,96	14
47	9,9952	19,990	29,985	39,981	49,976	59,97	69,97	79,96	89,96	13
48	9,9951	19,990	29,985	39,980	49,975	59,97	69,97	79,96	89,96	12
49	9,9950*	19,990	29,985*	39,980	49,975*	59,97	69,96	79,96	89,95	11
50	9,9949	19,990	29,985*	39,980	49,974	59,97	69,96	79,96	89,95	10
51	9,9948	19,990	29,984	39,979	49,974	59,97	69,96	79,96	89,95	9
52	9,9947	19,989	29,984	39,979	49,973	59,97	69,96	79,96	89,95	8
53	9,9946	19,989	29,984	39,978	49,973	59,97	69,96	79,96	89,95	7
54	9,9945	19,989	29,984	39,978	49,972	59,97	69,96	79,96	89,95	6
55	9,9944	19,989	29,983	39,978	49,972	59,97	69,96	79,96	89,95*	5
56	9,9943	19,989	29,983	39,977	49,972	59,97	69,96	79,95	89,95*	4
57	9,9942	19,988	29,983	39,977	49,971	59,97	69,96	79,95	89,95*	3
58	9,9941	19,988	29,982	39,976	49,971	59,96	69,96	79,95	89,95*	2
59	9,9940	19,988	29,982	39,976	49,970	59,96	69,96	79,95	89,95*	1
60	9,9939	19,988	29,982	39,976	49,970	59,96	69,96	79,95	89,95*	0

十分之一及百分之一公尺数的改正

	0	1	2	3	4
0	00	01	02	03	04
1	10	11	12	13	14
2	20	21	22	23	24
3	30	31	32	33	34
4	40	41	42	43	44
5	50*	51	52	53	54
6	60	61	62	63	64
7	70	71	72	73	74
8	80	81	82	83	84
9	90	91	92	93	94

	5	6	7	8	9
0	05*	06	07	08	09
1	15*	16	17	18	19
2	25*	26	27	28	29
3	35*	36	37	38	39
4	45*	46	47	48	49
5	55*	56	57	58	59
6	65*	66	67	68	69
7	75*	76	77	78	79
8	85*	86	87	88	89
9	95*	96	97	98	99

十分之一的改正

	2	3	5
1	0,2	0,3	0,5
2	0,4	0,6	1,0
3	0,6	0,9	1,5
4	0,8	1,2	2,0
5	1,0	1,5	2,5
6	1,2	1,8	3,0
7	1,4	2,1	3,5
8	1,6	2,4	4,0
9	1,8	2,7	4,5

	6	8	9
1	0,6	0,8	0,9
2	1,2	1,6	1,8
3	1,8	2,4	2,7
4	2,4	3,2	3,6
5	3,0	4,0	4,5
6	3,6	4,8	5,4
7	4,2	5,6	6,3
8	4,8	6,4	7,2
9	5,4	7,2	8,1

十分之一及百分之一公尺数的改正

	0	1	2	3	4
0	00	01	02	03	04
1	10	11	12	13	14
2	20	21	22	23	24
3	30	31	32	33	34
4	40	41	42	43	44
5	50*	51	52	53	54
6	60	61	62	63	64
7	70	71	72	73	74
8	80	81	82	83	84
9	90	91	92	93	94

	5	6	7	8	9
0	05*	06	07	08	09
1	15*	16	17	18	19
2	25*	26	27	28	29
3	35*	36	37	38	39
4	45*	46	47	48	49
5	55*	56	57	58	59
6	65*	66	67	68	69
7	75*	76	77	78	79
8	85*	86	87	88	89
9	95*	96	97	98	99

+ 81°
- 271°

Δy

88°

Sin

88° +
288°

-181°
+ 1°

Sin

1°

Δy

358° -
178° +

十分之一及百分之一公尺数的改正

0 1 2 3 4				
0	00	00	00	00
1	00	00	00	00
2	01	01	01	01
3	01	01	01	01
4	01	01	01	01
5	01	01	01	01
6	01	01	01	01
7	02	02	02	02
8	02	02	02	02
9	02	02	02	02

5 6 7 8 9				
0	00	00	00	00
1	00	00	00	00
2	01	01	01	01
3	01	01	01	01
4	01	01	01	01
5	01	01	01	01
6	01	01	01	01
7	02	02	02	02
8	02	02	02	02
9	02	02	02	02

十分之一的改正

11 12 14		
1	1.1	1.2
2	2.2	2.4
3	3.3	3.6
4	4.4	4.8
5	5.5	6.0
6	6.6	7.2
7	7.7	8.4
8	8.8	9.6
9	9.9	10.8

15 20 30		
1	1.5	2.9
2	3.0	5.8
3	4.5	8.7
4	6.0	11.6
5	7.5	14.5
6	9.0	17.4
7	10.5	20.3
8	12.0	23.2
9	13.5	26.1

十分之一及百分之一公尺数的改正

0 1 2 3 4				
0	00	00	00	00
1	00	00	00	00
2	01	01	01	01
3	01	01	01	01
4	01	01	01	01
5	02	02	02	02
6	02	02	02	02
7	02	02	02	02
8	03	03	03	03
9	03	03	03	03

5 6 7 8 9				
0	00	00	00	00
1	00	00	00	00
2	01	01	01	01
3	01	01	01	01
4	01	01	01	01
5	02	02	02	02
6	02	02	02	02
7	02	02	02	02
8	03	03	03	03
9	03	03	03	03

	10	20	30	40	50	60	70	80	90
0	0.1745	0.349	0.524	0.698	0.873	1.05*	1.22	1.40	1.57
1	0.1774	0.355*	0.532	0.710	0.887	1.06	1.24	1.42	1.60
2	0.1803	0.361	0.541	0.721	0.902	1.08	1.26	1.44	1.62
3	0.1832	0.366	0.550*	0.733	0.916	1.10	1.28	1.47	1.65*
4	0.1862	0.372	0.558	0.745*	0.931	1.12	1.30	1.49	1.68
5	0.1891	0.378	0.567	0.756	0.945	1.13	1.32	1.51	1.70
6	0.1920	0.384	0.576	0.768	0.960	1.15	1.34	1.54	1.73
7	0.1949	0.390	0.585*	0.780	0.974	1.17	1.36	1.56	1.75
8	0.1978	0.396	0.593	0.791	0.989	1.19	1.38	1.58	1.78
9	0.2007	0.401	0.602	0.803	1.004	1.20	1.40	1.61	1.81
10	0.2036	0.407	0.611	0.814	1.018	1.22	1.43	1.63	1.83
11	0.2065	0.413	0.620	0.826	1.033	1.24	1.45*	1.65	1.86
12	0.2094	0.419	0.628	0.838	1.047	1.26	1.47	1.68	1.88
13	0.2123	0.425*	0.637	0.849	1.062	1.27	1.49	1.70	1.91
14	0.2152	0.430	0.646	0.861	1.076	1.29	1.51	1.72	1.94
15	0.2181	0.436	0.654	0.873	1.091	1.31	1.53	1.75*	1.96
16	0.2211	0.442	0.663	0.884	1.105	1.33	1.55*	1.77	1.99
17	0.2240	0.448	0.672	0.896	1.120	1.34	1.57	1.79	2.02
18	0.2269	0.454	0.681	0.907	1.134	1.36	1.59	1.81	2.04
19	0.2298	0.460	0.689	0.919	1.149	1.38	1.61	1.84	2.07
20	0.2327	0.465	0.698	0.931	1.163	1.40	1.63	1.86	2.09
21	0.2356	0.471	0.707	0.942	1.178	1.41	1.65*	1.88	2.12
22	0.2385	0.477	0.716*	0.954	1.193	1.43	1.67	1.91	2.15*
23	0.2414	0.483	0.724	0.966	1.207	1.45*	1.69	1.93	2.17
24	0.2443	0.489	0.733	0.977	1.222	1.47	1.71	1.95	2.20
25	0.2472	0.494	0.742	0.989	1.236	1.48	1.73	1.98	2.23
26	0.2501	0.500	0.750	1.001	1.251	1.50	1.75	2.00	2.25
27	0.2530	0.506	0.759	1.012	1.265	1.52	1.77	2.02	2.28
28	0.2560	0.512	0.768	1.024	1.280	1.54	1.79	2.05*	2.30
29	0.2589	0.518	0.777	1.035	1.294	1.55	1.81	2.07	2.33
30	0.2618	0.524	0.785	1.047	1.309	1.57	1.83	2.09	2.36
31	0.2647	0.529	0.794	1.059	1.323	1.59	1.85	2.12	2.38
32	0.2676	0.535	0.803	1.070	1.338	1.61	1.87	2.14	2.41
33	0.2705*	0.541	0.811	1.082	1.352	1.62	1.89	2.16	2.43
34	0.2734	0.547	0.820	1.094	1.367	1.64	1.91	2.19	2.46
35	0.2763	0.553	0.829	1.105	1.382	1.66	1.93	2.21	2.49
36	0.2792	0.558	0.838	1.117	1.396	1.68	1.95	2.23	2.51
37	0.2821	0.564	0.846	1.128	1.411	1.69	1.97	2.26	2.54
38	0.2850	0.570	0.855	1.140	1.425	1.71	2.00	2.28	2.57
39	0.2879	0.576	0.864	1.152	1.440	1.73	2.02	2.30	2.59
40	0.2908	0.582	0.873	1.163	1.454	1.75*	2.04	2.33	2.62
41	0.2938	0.588	0.881	1.175	1.469	1.76	2.06	2.35	2.64
42	0.2967	0.593	0.890	1.187	1.483	1.78	2.08	2.37	2.67
43	0.2996	0.599	0.899	1.198	1.498	1.80	2.10	2.40	2.70
44	0.3025*	0.605*	0.907	1.210	1.512	1.81	2.12	2.42	2.72
45	0.3054	0.611	0.916	1.222	1.527	1.83	2.14	2.44	2.75*
46	0.3083	0.617	0.925*	1.233	1.541	1.85*	2.16	2.47	2.77
47	0.3112	0.622	0.934	1.245*	1.556	1.87	2.18	2.49	2.80
48	0.3141	0.628	0.942	1.256	1.571	1.88	2.20	2.51	2.83
49	0.3170	0.634	0.951	1.268	1.585	1.90	2.22	2.54	2.85
50	0.3199	0.640	0.960	1.280	1.600	1.92	2.24	2.56	2.88
51	0.3228	0.646	0.968	1.291	1.614	1.94	2.26	2.58	2.91
52	0.3257	0.651	0.977	1.303	1.629	1.95	2.28	2.61	2.93
53	0.3286	0.657	0.986	1.315*	1.643	1.97	2.30	2.63	2.96
54	0.3316	0.663	0.995*	1.326	1.658	1.99	2.32	2.65	2.98
55	0.3345*	0.669	1.003	1.338	1.672	2.01	2.34	2.68	3.01
56	0.3374	0.675*	1.012	1.349	1.687	2.02	2.36	2.70	3.04
57	0.3403	0.681	1.021	1.361	1.701	2.04	2.38	2.72	3.06
58	0.3432	0.686	1.030	1.373	1.716	2.06	2.40	2.75*	3.09
59	0.3461	0.692	1.038	1.384	1.730	2.08	2.42	2.77	3.11
60	0.3490	0.698	1.047	1.396	1.745*	2.09	2.44	2.79	3.14

-181°
+ 178°

Δx

88°

Cos

358° -
178° +

-182°
+ 2°

Cos

2°

Δx

357°+
177°-

	10	20	30	40	50	60	70	80	90
0	9.9939	19.988	29.982	39.976	49.970	59.96	69.96	79.95	89.95*
1	9.9938	19.988	29.981	39.975	49.969	59.96	69.96	79.95	89.94
2	9.9937	19.987	29.981	39.975*	49.969	59.96	69.96	79.95*	89.94
3	9.9936	19.987	29.981	39.974	49.968	59.96	69.96	79.95*	89.94
4	9.9935*	19.987	29.980	39.974	49.968	59.96	69.95	79.95*	89.94
5	9.9934	19.987	29.980	39.974	49.967	59.96	69.95	79.95*	89.94
6	9.9933	19.987	29.980	39.973	49.966	59.96	69.95	79.95*	89.94
7	9.9932	19.986	29.980	39.973	49.966	59.96	69.95	79.95*	89.94
8	9.9931	19.986	29.979	39.972	49.965	59.96	69.95	79.94	89.94
9	9.9930	19.986	29.979	39.972	49.965*	59.96	69.95	79.94	89.94
10	9.9929	19.986	29.979	39.971	49.964	59.96	69.95*	79.94	89.94
11	9.9927	19.985	29.978	39.971	49.964	59.96	69.95*	79.94	89.93
12	9.9926	19.985	29.978	39.971	49.963	59.96	69.95*	79.94	89.93
13	9.9925	19.985	29.978	39.970	49.963	59.96	69.95*	79.94	89.93
14	9.9924	19.985*	29.977	39.970	49.962	59.95	69.95*	79.94	89.93
15	9.9923	19.985*	29.977	39.969	49.961	59.95	69.95*	79.94	89.93
16	9.9922	19.984	29.977	39.969	49.961	59.95	69.95*	79.94	89.93
17	9.9921	19.984	29.976	39.968	49.960	59.95	69.94	79.94	89.93
18	9.9919	19.984	29.976	39.968	49.960	59.95	69.94	79.94	89.93
19	9.9918	19.984	29.975	39.967	49.959	59.95	69.94	79.93	89.93
20	9.9917	19.983	29.975	39.967	49.959	59.95	69.94	79.93	89.93
21	9.9916	19.983	29.975*	39.966	49.958	59.95	69.94	79.93	89.92
22	9.9915*	19.983	29.974	39.966	49.957	59.95*	69.94	79.93	89.92
23	9.9913	19.983	29.974	39.965	49.957	59.95*	69.94	79.93	89.92
24	9.9912	19.982	29.974	39.965*	49.956	59.95*	69.94	79.93	89.92
25	9.9911	19.982	29.973	39.964	49.956	59.95*	69.94	79.93	89.92
26	9.9910	19.982	29.973	39.964	49.955*	59.95*	69.94	79.93	89.92
27	9.9909	19.982	29.973	39.963	49.954	59.95*	69.94	79.93	89.92
28	9.9907	19.981	29.972	39.963	49.954	59.94	69.94	79.93	89.92
29	9.9906	19.981	29.972	39.962	49.953	59.94	69.93	79.92	89.92
30	9.9905*	19.981	29.971	39.962	49.952	59.94	69.93	79.92	89.91
31	9.9904	19.981	29.971	39.961	49.952	59.94	69.93	79.92	89.91
32	9.9902	19.980	29.971	39.961	49.951	59.94	69.93	79.92	89.91
33	9.9901	19.980	29.970	39.960	49.950	59.94	69.93	79.92	89.91
34	9.9900	19.980	29.970	39.960	49.950*	59.94	69.93	79.92	89.91
35	9.9898	19.980	29.970	39.959	49.949	59.94	69.93	79.92	89.91
36	9.9897	19.979	29.969	39.959	49.949	59.94	69.93	79.92	89.91
37	9.9896	19.979	29.969	39.958	49.948	59.94	69.93	79.92	89.91
38	9.9894	19.979	29.968	39.958	49.947	59.94	69.93	79.92	89.90
39	9.9893	19.979	29.968	39.957	49.947	59.94	69.93	79.91	89.90
40	9.9892	19.978	29.968	39.957	49.946	59.94	69.92	79.91	89.90
41	9.9890	19.978	29.967	39.956	49.945	59.93	69.92	79.91	89.90
42	9.9889	19.978	29.967	39.956	49.944	59.93	69.92	79.91	89.90
43	9.9888	19.978	29.966	39.955	49.944	59.93	69.92	79.91	89.90
44	9.9886	19.977	29.966	39.954	49.943	59.93	69.92	79.91	89.90
45	9.9885*	19.977	29.965	39.954	49.942	59.93	69.92	79.91	89.90
46	9.9883	19.977	29.965	39.953	49.942	59.93	69.92	79.91	89.90
47	9.9882	19.976	29.965*	39.953	49.941	59.93	69.92	79.91	89.89
48	9.9881	19.976	29.964	39.952	49.940	59.93	69.92	79.90	89.89
49	9.9879	19.976	29.964	39.952	49.940	59.93	69.92	79.90	89.89
50	9.9878	19.976	29.963	39.951	49.939	59.93	69.91	79.90	89.89
51	9.9876	19.975	29.963	39.951	49.938	59.93	69.91	79.90	89.89
52	9.9875*	19.975*	29.962	39.950*	49.937	59.92	69.91	79.90	89.89
53	9.9873	19.975*	29.962	39.949	49.937	59.92	69.91	79.90	89.89
54	9.9872	19.974	29.962	39.949	49.936	59.92	69.91	79.90	89.88
55	9.9870	19.974	29.961	39.948	49.935	59.92	69.91	79.90	89.88
56	9.9869	19.974	29.961	39.948	49.934	59.92	69.91	79.90	89.88
57	9.9867	19.973	29.960	39.947	49.934	59.92	69.91	79.89	89.88
58	9.9866	19.973	29.960	39.946	49.933	59.92	69.91	79.89	89.88
59	9.9864	19.973	29.959	39.946	49.932	59.92	69.91	79.89	89.88
60	9.9863	19.973	29.959	39.945	49.932	59.92	69.90	79.89	89.88

十分之一及百分之一公尺数的改正

	0	1	2	3	4
0	00	01	02	03	04
1	10	11	12	13	14
2	20	21	22	23	24
3	30	31	32	33	34
4	40	41	42	43	44
5	50*	51	52	53	54
6	60	61	62	63	64
7	70	71	72	73	74
8	80	81	82	83	84
9	90	91	92	93	94

	5	6	7	8	9
0	05*	06	07	08	09
1	15*	16	17	18	19
2	25*	26	27	28	29
3	35*	36	37	38	39
4	45*	46	47	48	49
5	55*	56	57	58	59
6	65*	66	67	68	69
7	75*	76	77	78	79
8	85*	86	87	88	89
9	95*	96	97	98	99

十分之一的改正

	2	3	5
1	0.2	0.3	0.5
2	0.4	0.6	1.0
3	0.6	0.9	1.5
4	0.8	1.2	2.0
5	1.0	1.5	2.5
6	1.2	1.8	3.0
7	1.4	2.1	3.5
8	1.6	2.4	4.0
9	1.8	2.7	4.5

	6	8	9
1	0.6	0.8	0.9
2	1.2	1.6	1.8
3	1.8	2.4	2.7
4	2.4	3.2	3.6
5	3.0	4.0	4.5
6	3.6	4.8	5.4
7	4.2	5.6	6.3
8	4.8	6.4	7.2
9	5.4	7.2	8.1

十分之一及百分之一公尺数的改正

	0	1	2	3	4
0	00	01	02	03	04
1	10	11	12	13	14
2	20	21	22	23	24
3	30	31	32	33	34
4	40	41	42	43	44
5	50*	51	52	53	54
6	60	61	62	63	64
7	70	71	72	73	74
8	80	81	82	83	84
9	90	91	92	93	94

	5	6	7	8	9
0	05*	06	07	08	09
1	15*	16	17	18	19
2	25*	26	27	28	29
3	35*	36	37	38	39
4	45*	46	47	48	49
5	55*	56	57	58	59
6	65*	66	67	68	69
7	75*	76	77	78	79
8	85*	86	87	88	89
9	95*	96	97	98	99

+ 92°
- 272°

Δy

87°

Sin

87°+
267°-

-182°
+ 2°

Sin

2°

Δy

357°-
177°+

十分之一及百分之一公尺数的改正

	0	1	2	3	4
0	00	00	00	00	00
1	00	00	00	01	01
2	01	01	01	01	01
3	01	01	01	01	01
4	02	02	02	02	02
5	02	02	02	02	02
6	02	02	02	02	03
7	03	03	03	03	03
8	03	03	03	03	03
9	04	04	04	04	04

	5	6	7	8	9
0	00	00	00	00	00
1	01	01	01	01	01
2	01	01	01	01	01
3	01	01	01	01	02
4	02	02	02	02	02
5	02	02	02	02	02
6	03	03	03	03	03
7	03	03	03	03	03
8	03	03	03	03	03
9	04	04	04	04	04

十分之一的改正

	11	12	14
1	1.1	1.2	1.4
2	2.2	2.4	2.8
3	3.3	3.6	4.2
4	4.4	4.8	5.6
5	5.5	6.0	7.0
6	6.6	7.2	8.4
7	7.7	8.4	9.8
8	8.8	9.6	11.2
9	9.9	10.8	12.6

	15	29	30
1	1.5	2.9	3.0
2	3.0	5.8	6.0
3	4.5	8.7	9.0
4	6.0	11.6	12.0
5	7.5	14.5	15.0
6	9.0	17.4	18.0
7	10.5	20.3	21.0
8	12.0	23.2	24.0
9	13.5	26.1	27.0

十分之一及百分之一公尺数的改正

	0	1	2	3	4
0	00	00	00	00	00
1	00	01	01	01	01
2	01	01	01	01	01
3	01	01	02	02	02
4	02	02	02	02	02
5	02	02	02	03	03
6	03	03	03	03	03
7	03	03	03	04	04
8	04	04	04	04	04
9	04	04	04	04	05

	5	6	7	8	9
0	00	00	00	00	00
1	01	01	01	01	01
2	01	01	01	01	01
3	02	02	02	02	02
4	02	02	02	02	02
5	03	03	03	03	03
6	03	03	03	03	03
7	04	04	04	04	04
8	04	04	04	04	04
9	05	05	05	05	05

	10	20	30	40	50	60	70	80	90	
0	0.3490	0.698	1.047	1.396	1.745*	2.09	2.44	2.79	3.14	60
1	0.3519	0.704	1.056	1.408	1.750	2.11	2.46	2.82	3.17	59
2	0.3548	0.710	1.064	1.419	1.774	2.13	2.48	2.84	3.19	58
3	0.3577	0.715	1.073	1.431	1.789	2.15*	2.50	2.86	3.22	57
4	0.3606	0.721	1.082	1.442	1.803	2.16	2.52	2.88	3.25*	56
5	0.3635	0.727	1.091	1.454	1.818	2.18	2.54	2.91	3.27	55
6	0.3664	0.733	1.099	1.466	1.832	2.20	2.57	2.93	3.30	54
7	0.3693	0.739	1.108	1.477	1.847	2.22	2.59	2.95	3.32	53
8	0.3723	0.745*	1.117	1.489	1.861	2.23	2.61	2.98	3.35	52
9	0.3752	0.750	1.125	1.501	1.876	2.25	2.63	3.00	3.38	51
10	0.3781	0.756	1.134	1.512	1.890	2.27	2.65*	3.02	3.40	50
11	0.3810	0.762	1.143	1.524	1.905*	2.29	2.67	3.05*	3.43	49
12	0.3839	0.768	1.152	1.536	1.919	2.30	2.69	3.07	3.45	48
13	0.3868	0.774	1.160	1.547	1.934	2.32	2.71	3.09	3.48	47
14	0.3897	0.779	1.169	1.559	1.948	2.34	2.73	3.12	3.51	46
15	0.3926	0.785	1.178	1.570	1.963	2.36	2.75*	3.14	3.53	45
16	0.3955	0.791	1.187	1.582	1.978	2.37	2.77	3.16	3.56	44
17	0.3984	0.797	1.195	1.594	1.992	2.39	2.79	3.19	3.59	43
18	0.4013	0.803	1.204	1.605	2.007	2.41	2.81	3.21	3.61	42
19	0.4042	0.808	1.213	1.617	2.021	2.43	2.83	3.23	3.64	41
20	0.4071	0.814	1.221	1.629	2.036	2.44	2.85*	3.26	3.66	40
21	0.4100	0.820	1.230	1.640	2.050	2.46	2.87	3.28	3.69	39
22	0.4129	0.826	1.239	1.652	2.065*	2.48	2.89	3.30	3.72	38
23	0.4159	0.832	1.248	1.663	2.079	2.50	2.91	3.33	3.74	37
24	0.4188	0.838	1.256	1.675	2.094	2.51	2.93	3.35	3.77	36
25	0.4217	0.843	1.265*	1.687	2.108	2.53	2.95	3.37	3.79	35
26	0.4246	0.849	1.274	1.698	2.123	2.55*	2.97	3.40	3.82	34
27	0.4275*	0.855*	1.282	1.710	2.137	2.56	2.99	3.42	3.85*	33
28	0.4304	0.861	1.291	1.722	2.152	2.58	3.01	3.44	3.87	32
29	0.4333	0.867	1.300	1.733	2.166	2.60	3.03	3.47	3.90	31
30	0.4362	0.872	1.309	1.745*	2.181	2.62	3.05	3.49	3.93	30
31	0.4391	0.878	1.317	1.756	2.196	2.63	3.07	3.51	3.95	29
32	0.4420	0.884	1.326	1.768	2.210	2.65	3.09	3.54	3.98	28
33	0.4449	0.890	1.335*	1.780	2.225*	2.67	3.11	3.56	4.00	27
34	0.4478	0.896	1.343	1.791	2.239	2.69	3.13	3.58	4.03	26
35	0.4507	0.901	1.352	1.803	2.254	2.70	3.16	3.61	4.06	25
36	0.4536	0.907	1.361	1.815*	2.268	2.72	3.18	3.63	4.08	24
37	0.4565	0.913	1.370	1.826	2.283	2.74	3.20	3.65	4.11	23
38	0.4594	0.919	1.378	1.838	2.297	2.76	3.22	3.68	4.13	22
39	0.4623	0.925*	1.387	1.849	2.312	2.77	3.24	3.70	4.16	21
40	0.4653	0.931	1.396	1.861	2.326	2.79	3.26	3.72	4.19	20
41	0.4682	0.936	1.404	1.873	2.341	2.81	3.28	3.75*	4.21	19
42	0.4711	0.942	1.413	1.884	2.355	2.83	3.30	3.77	4.24	18
43	0.4740	0.948	1.422	1.896	2.370	2.84	3.32	3.79	4.27	17
44	0.4769	0.954	1.431	1.908	2.384	2.86	3.34	3.82	4.29	16
45	0.4798	0.960	1.439	1.919	2.399	2.88	3.36	3.84	4.32	15
46	0.4827	0.965	1.448	1.931	2.413	2.90	3.38	3.86	4.34	14
47	0.4856	0.971	1.457	1.942	2.428	2.91	3.40	3.88	4.37	13
48	0.4885*	0.977	1.465	1.954	2.442	2.93	3.42	3.91	4.40	12
49	0.4914	0.983	1.474	1.965	2.457	2.95*	3.44	3.93	4.42	11
50	0.4943	0.989	1.483	1.977	2.472	2.97	3.46	3.95	4.45*	10
51	0.4972	0.994	1.492	1.989	2.486	2.98	3.48	3.98	4.47	9
52	0.5001	1.000	1.500	2.000	2.501	3.00	3.50	4.00	4.50	8
53	0.5030	1.006	1.509	2.012	2.515	3.02	3.52	4.02	4.53	7
54	0.5059	1.012	1.518	2.024	2.530	3.04	3.54	4.05*	4.55	6
55	0.5088	1.018	1.527	2.035	2.544	3.05	3.56	4.07	4.58	5
56	0.5117	1.023	1.535	2.047	2.559	3.07	3.58	4.09	4.61	4
57	0.5146	1.029	1.544	2.059	2.573	3.09	3.60	4.12	4.63	3
58	0.5175	1.035	1.553	2.070	2.588	3.11	3.62	4.14	4.66	2
59	0.5205*	1.041	1.561	2.082	2.602	3.12	3.64	4.16	4.68	1
60	0.5234	1.047	1.570	2.093	2.617	3.14	3.66	4.19	4.71	0

- 92°
+ 272°

Δx

87°

Cos

87°+
287°-

-183°
+ 3°

Cos

3°

Δx

356°+
176°-

	10	20	30	40	50	60	70	80	90	
0	9.9863	19.973	29.959	39.945	49.932	59.92	69.90	79.89	89.88	60
1	9.9861	19.972	29.958	39.945*	49.931	59.92	69.90	79.89	89.88	59
2	9.9860	19.972	29.958	39.944	49.930	59.92	69.90	79.89	89.87	58
3	9.9858	19.972	29.958	39.943	49.929	59.92	69.90	79.89	89.87	57
4	9.9857	19.971	29.957	39.943	49.928	59.91	69.90	79.89	89.87	56
5	9.9855	19.971	29.957	39.942	49.928	59.91	69.90	79.88	89.87	55
6	9.9854	19.971	29.956	39.941	49.927	59.91	69.90	79.88	89.87	54
7	9.9852	19.970	29.956	39.941	49.926	59.91	69.90	79.88	89.87	53
8	9.9851	19.970	29.955	39.940	49.925	59.91	69.90	79.88	89.87	52
9	9.9849	19.970	29.955*	39.940	49.924	59.91	69.89	79.88	89.86	51
10	9.9847	19.969	29.954	39.939	49.924	59.91	69.89	79.88	89.86	50
11	9.9846	19.969	29.954	39.938	49.923	59.91	69.89	79.88	89.86	49
12	9.9844	19.969	29.953	39.938	49.922	59.91	69.89	79.88	89.86	48
13	9.9842	19.968	29.953	39.937	49.921	59.91	69.89	79.87	89.86	47
14	9.9841	19.968	29.952	39.936	49.920	59.90	69.89	79.87	89.86	46
15	9.9839	19.968	29.952	39.936	49.920	59.90	69.89	79.87	89.86	45
16	9.9838	19.968	29.951	39.935	49.919	59.90	69.89	79.87	89.85	44
17	9.9836	19.967	29.951	39.934	49.918	59.90	69.89	79.87	89.85	43
18	9.9834	19.967	29.950	39.934	49.917	59.90	69.88	79.87	89.85	42
19	9.9833	19.967	29.950*	39.933	49.916	59.90	69.88	79.87	89.85*	41
20	9.9831	19.966	29.949	39.932	49.915	59.90	69.88	79.86	89.85*	40
21	9.9829	19.966	29.949	39.932	49.915*	59.90	69.88	79.86	89.85*	39
22	9.9827	19.965	29.948	39.931	49.914	59.90	69.88	79.86	89.84	38
23	9.9826	19.965	29.948	39.930	49.913	59.90	69.88	79.86	89.84	37
24	9.9824	19.965*	29.947	39.930	49.912	59.89	69.88	79.86	89.84	36
25	9.9822	19.964	29.947	39.929	49.911	59.89	69.88	79.86	89.84	35
26	9.9821	19.964	29.946	39.928	49.910	59.89	69.87	79.86	89.84	34
27	9.9819	19.964	29.946	39.928	49.909	59.89	69.87	79.86	89.84	33
28	9.9817	19.963	29.945	39.927	49.909	59.89	69.87	79.85	89.84	32
29	9.9815	19.963	29.945*	39.926	49.908	59.89	69.87	79.85	89.83	31
30	9.9813	19.963	29.944	39.925	49.907	59.89	69.87	79.85	89.83	30
31	9.9812	19.962	29.944	39.925*	49.906	59.89	69.87	79.85*	89.83	29
32	9.9810	19.962	29.943	39.924	49.905*	59.89	69.87	79.85*	89.83	28
33	9.9808	19.962	29.942	39.923	49.904	59.88	69.87	79.85*	89.83	27
34	9.9806	19.961	29.942	39.923	49.903	59.88	69.86	79.85*	89.83	26
35	9.9804	19.961	29.941	39.922	49.902	59.88	69.86	79.84	89.82	25
36	9.9803	19.961	29.941	39.921	49.901	59.88	69.86	79.84	89.82	24
37	9.9801	19.960	29.940	39.920	49.900	59.88	69.86	79.84	89.82	23
38	9.9799	19.960	29.940	39.920	49.900	59.88	69.86	79.84	89.82	22
39	9.9797	19.959	29.939	39.919	49.899	59.88	69.86	79.84	89.82	21
40	9.9795	19.959	29.939	39.918	49.898	59.88	69.86	79.84	89.82	20
41	9.9793	19.959	29.938	39.917	49.897	59.88	69.86	79.83	89.81	19
42	9.9792	19.958	29.937	39.917	49.896	59.87	69.85	79.83	89.81	18
43	9.9790	19.958	29.937	39.916	49.895*	59.87	69.85	79.83	89.81	17
44	9.9788	19.958	29.936	39.915	49.894	59.87	69.85	79.83	89.81	16
45	9.9786	19.957	29.936	39.914	49.893	59.87	69.85	79.83	89.81	15
46	9.9784	19.957	29.935	39.914	49.892	59.87	69.85*	79.83	89.81	14
47	9.9782	19.956	29.935*	39.913	49.891	59.87	69.85*	79.83	89.80	13
48	9.9780	19.956	29.934	39.912	49.890	59.87	69.85*	79.82	89.80	12
49	9.9778	19.956	29.933	39.911	49.889	59.87	69.84	79.82	89.80	11
50	9.9776	19.955	29.933	39.911	49.888	59.87	69.84	79.82	89.80	10
51	9.9774	19.955*	29.932	39.910	49.887	59.86	69.84	79.82	89.80	9
52	9.9772	19.954	29.932	39.909	49.886	59.86	69.84	79.82	89.80	8
53	9.9770	19.954	29.931	39.908	49.885	59.86	69.84	79.82	89.79	7
54	9.9768	19.954	29.931	39.907	49.884	59.86	69.84	79.81	89.79	6
55	9.9766	19.953	29.930	39.907	49.883	59.86	69.84	79.81	89.79	5
56	9.9764	19.953	29.929	39.906	49.882	59.86	69.84	79.81	89.79	4
57	9.9762	19.952	29.929	39.905	49.881	59.86	69.83	79.81	89.79	3
58	9.9760	19.952	29.928	39.904	49.880	59.86	69.83	79.81	89.78	2
59	9.9758	19.952	29.928	39.903	49.879	59.86	69.83	79.81	89.78	1
60	9.9756	19.951	29.927	39.903	49.878	59.85	69.83	79.81	89.78	0

十分之一及百分之一公尺数的改正

	0	1	2	3	4
0	00	01	02	03	04
1	10	11	12	13	14
2	20	21	22	23	24
3	30	31	32	33	34
4	40	41	42	43	44
5	50*	51	52	53	54
6	60	61	62	63	64
7	70	71	72	73	74
8	80	81	82	83	84
9	90	91	92	93	94

	5	6	7	8	9
0	05*	06	07	08	09
1	15*	16	17	18	19
2	25*	26	27	28	29
3	35*	36	37	38	39
4	45*	46	47	48	49
5	55*	56	57	58	59
6	65*	66	67	68	69
7	75*	76	77	78	79
8	85*	86	87	88	89
9	95*	96	97	98	99

十分之一的改正

	2	3	5
1	0.2	0.3	0.5
2	0.4	0.6	1.0
3	0.6	0.9	1.5
4	0.8	1.2	2.0
5	1.0	1.5	2.5
6	1.2	1.8	3.0
7	1.4	2.1	3.5
8	1.6	2.4	4.0
9	1.8	2.7	4.5

	6	8	9
1	0.6	0.8	0.9
2	1.2	1.6	1.8
3	1.8	2.4	2.7
4	2.4	3.2	3.6
5	3.0	4.0	4.5
6	3.6	4.8	5.4
7	4.2	5.6	6.3
8	4.8	6.4	7.2
9	5.4	7.2	8.1

十分之一及百分之一公尺数的改正

	0	1	2	3	4
0	00	01	02	03	04
1	10	11	12	13	14
2	20	21	22	23	24
3	30	31	32	33	34
4	40	41	42	43	44
5	50*	51	52	53	54
6	60	61	62	63	64
7	70	71	72	73	74
8	80	81	82	83	84
9	90	91	92	93	94

	5	6	7	8	9
0	05*	06	07	08	09
1	15*	16	17	18	19
2	25*	26	27	28	29
3	35*	36	37	38	39
4	45*	46	47	48	49
5	55*	56	57	58	59
6	65*	66	67	68	69
7	75*	76	77	78	79
8	85*	86	87	88	89
9	95*	96	97	98	99

+ 83°
- 223°

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86°

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83°+
223°-

十分之一及百分之一公尺数的改正

	0	1	2	3	4
0	00	00	00	00	00
1	01	01	01	01	01
2	02	02	02	02	02
3	03	03	03	03	03
4	04	04	04	04	04
5	05	05	05	05	05
6	06	06	06	06	06
7	07	07	07	07	07
8	08	08	08	08	08
9	09	09	09	09	09

	5	6	7	8	9
0	00	00	00	00	01
1	01	01	01	01	01
2	02	02	02	02	02
3	03	03	03	03	03
4	04	04	04	04	04
5	05	05	05	05	05
6	06	06	06	06	06
7	07	07	07	07	07
8	08	08	08	08	08
9	09	09	09	09	09

十分之一分的改正

	11	12	14
1	1.1	1.2	1.4
2	2.2	2.4	2.8
3	3.3	3.6	4.2
4	4.4	4.8	5.6
5	5.5	6.0	7.0
6	6.6	7.2	8.4
7	7.7	8.4	9.8
8	8.8	9.6	11.2
9	9.9	10.8	12.6

	15	29	30
1	1.5	2.9	3.0
2	3.0	5.8	6.0
3	4.5	8.7	9.0
4	6.0	11.6	12.0
5	7.5	14.5	15.0
6	9.0	17.4	18.0
7	10.5	20.3	21.0
8	12.0	23.2	24.0
9	13.5	26.1	27.0

十分之一及百分之一公尺数的改正

	0	1	2	3	4
0	00	00	00	00	00
1	01	01	01	01	01
2	02	02	02	02	02
3	03	03	03	03	03
4	04	04	04	04	04
5	05	05	05	05	05
6	06	06	06	06	06
7	07	07	07	07	07
8	08	08	08	08	08
9	09	09	09	09	09

	5	6	7	8	9
0	00	00	00	01	01
1	01	01	01	02	02
2	02	02	02	03	03
3	03	03	03	04	04
4	04	04	04	05	05
5	05	05	05	06	06
6	06	06	06	07	07
7	07	07	07	08	08
8	08	08	08	09	09
9	09	09	09	10	10

	10	20	30	40	50	60	70	80	90	
0	0.5234	1.047	1.570	2.093	2.617	3.14	3.66	4.19	4.71	60
1	0.5263	1.053	1.579	2.105	2.631	3.16	3.68	4.21	4.74	59
2	0.5292	1.058	1.588	2.117	2.646	3.18	3.70	4.23	4.76	58
3	0.5321	1.064	1.596	2.128	2.660	3.19	3.72	4.26	4.79	57
4	0.5350*	1.070	1.605*	2.140	2.675*	3.21	3.74	4.28	4.81	56
5	0.5379	1.076	1.614	2.152	2.689	3.23	3.77	4.30	4.84	55
6	0.5408	1.082	1.622	2.163	2.704	3.24	3.79	4.33	4.87	54
7	0.5437	1.087	1.631	2.175*	2.718	3.26	3.81	4.35*	4.89	53
8	0.5466	1.093	1.640	2.186	2.733	3.28	3.83	4.37	4.92	52
9	0.5495	1.099	1.649	2.198	2.748	3.30	3.85*	4.40	4.95*	51
10	0.5524	1.105*	1.657	2.210	2.762	3.31	3.87	4.42	4.97	50
11	0.5553	1.111	1.666	2.221	2.777	3.33	3.89	4.44	5.00*	49
12	0.5582	1.116	1.675*	2.233	2.791	3.35*	3.91	4.47	5.02	48
13	0.5611	1.122	1.683	2.244	2.806	3.37	3.93	4.49	5.05	47
14	0.5640	1.128	1.692	2.256	2.820	3.38	3.95*	4.51	5.08	46
15	0.5669	1.134	1.701	2.268	2.835*	3.40	3.97	4.54	5.10	45
16	0.5698	1.140	1.709	2.279	2.849	3.42	3.99	4.56	5.13	44
17	0.5727	1.145	1.718	2.291	2.864	3.44	4.01	4.58	5.15	43
18	0.5756	1.151	1.727	2.303	2.878	3.45	4.03	4.61	5.18	42
19	0.5785	1.157	1.736	2.314	2.893	3.47	4.05*	4.63	5.21	41
20	0.5814	1.163	1.744	2.326	2.907	3.49	4.07	4.65	5.23	40
21	0.5844	1.169	1.753	2.337	2.922	3.51	4.09	4.67	5.26	39
22	0.5873	1.175*	1.762	2.349	2.936	3.52	4.11	4.70	5.29	38
23	0.5902	1.180	1.770	2.361	2.951	3.54	4.13	4.72	5.31	37
24	0.5931	1.186	1.779	2.372	2.965	3.56	4.15	4.74	5.34	36
25	0.5960	1.192	1.788	2.384	2.980	3.58	4.17	4.77	5.36	35
26	0.5989	1.198	1.797	2.395	2.994	3.59	4.19	4.79	5.39	34
27	0.6018	1.204	1.805	2.407	3.009	3.61	4.21	4.81	5.42	33
28	0.6047	1.209	1.814	2.419	3.023	3.63	4.23	4.84	5.44	32
29	0.6076	1.215	1.823	2.430	3.038	3.65*	4.25	4.86	5.47	31
30	0.6105*	1.221	1.831	2.442	3.052	3.66	4.27	4.88	5.49	30
31	0.6134	1.227	1.840	2.454	3.067	3.68	4.29	4.91	5.52	29
32	0.6163	1.233	1.849	2.465	3.081	3.70	4.31	4.93	5.55*	28
33	0.6192	1.238	1.858	2.477	3.096	3.72	4.33	4.95	5.57	27
34	0.6221	1.244	1.866	2.488	3.110	3.73	4.35	4.98	5.60	26
35	0.6250	1.250	1.875	2.500	3.125	3.75	4.38	5.00	5.63	25
36	0.6279	1.256	1.884	2.512	3.140	3.77	4.40	5.02	5.65	24
37	0.6308	1.262	1.892	2.523	3.154	3.78	4.42	5.05*	5.68	23
38	0.6337	1.267	1.901	2.535*	3.169	3.80	4.44	5.07	5.70	22
39	0.6366	1.273	1.910	2.546	3.183	3.82	4.46	5.09	5.73	21
40	0.6395	1.279	1.919	2.558	3.198	3.84	4.48	5.12	5.76	20
41	0.6424	1.285*	1.927	2.570	3.212	3.85	4.50*	5.14	5.78	19
42	0.6453	1.291	1.936	2.581	3.227	3.87	4.52	5.16	5.81	18
43	0.6482	1.296	1.945*	2.593	3.241	3.89	4.54	5.19	5.83	17
44	0.6511	1.302	1.953	2.605*	3.256	3.91	4.56	5.21	5.86	16
45	0.6540	1.308	1.962	2.616	3.270	3.92	4.58	5.23	5.89	15
46	0.6569	1.314	1.971	2.628	3.285*	3.94	4.60	5.26	5.91	14
47	0.6598	1.320	1.980	2.639	3.299	3.96	4.62	5.28	5.94	13
48	0.6627	1.325	1.988	2.651	3.314	3.98	4.64	5.30	5.96	12
49	0.6656	1.331	1.997	2.663	3.328	3.99	4.66	5.33	5.99	11
50	0.6685	1.337	2.006	2.674	3.343	4.01	4.68	5.35*	6.02	10
51	0.6714	1.343	2.014	2.686	3.357	4.03	4.70	5.37	6.04	9
52	0.6743	1.349	2.023	2.697	3.372	4.05*	4.72	5.39	6.07	8
53	0.6773	1.355*	2.032	2.709	3.386	4.06	4.74	5.42	6.10	7
54	0.6802	1.360	2.040	2.721	3.401	4.08	4.76	5.44	6.12	6
55	0.6831	1.366	2.049	2.732	3.415	4.10	4.78	5.46	6.15*	5
56	0.6860	1.372	2.058	2.744	3.430	4.12	4.80	5.49	6.17	4
57	0.6889	1.378	2.067	2.755	3.444	4.13	4.82	5.51	6.20	3
58	0.6918	1.384	2.075	2.767	3.459	4.15	4.84	5.53	6.23	2
59	0.6947	1.389	2.084	2.779	3.473	4.17	4.86	5.56	6.25	1
60	0.6976	1.395	2.093	2.790	3.488	4.19	4.88	5.58	6.28	0

- 88° + 273° Δx 86° Cos 88° + 265° -

-184°
+ 4°

Cos

4°

Δx

355° +
175° -

	10	20	30	40	50	60	70	80	90	
0	9.9756	19.951	29.927	39.903	49.878	59.85	69.83	79.81	89.78	60
1	9.9754	19.951	29.926	39.902	49.877	59.85	69.83	79.80	89.78	59
2	9.9752	19.950	29.926	39.901	49.876	59.85	69.83	79.80	89.78	58
3	9.9750	19.950	29.925	39.900	49.875	59.85	69.83	79.80	89.78	57
4	9.9748	19.950*	29.924	39.899	49.874	59.85*	69.82	79.80	89.77	56
5	9.9746	19.949	29.924	39.898	49.873	59.85*	69.82	79.80	89.77	55
6	9.9744	19.949	29.923	39.898	49.872	59.85*	69.82	79.80	89.77	54
7	9.9742	19.948	29.923	39.897	49.871	59.85*	69.82	79.79	89.77	53
8	9.9740	19.948	29.922	39.896	49.870	59.84	69.82	79.79	89.77	52
9	9.9738	19.948	29.921	39.895	49.869	59.84	69.82	79.79	89.76	51
10	9.9736	19.947	29.921	39.894	49.868	59.84	69.81	79.79	89.76	50
11	9.9734	19.947	29.920	39.893	49.867	59.84	69.81	79.79	89.76	49
12	9.9731	19.946	29.919	39.893	49.866	59.84	69.81	79.79	89.76	48
13	9.9729	19.946	29.919	39.892	49.865*	59.84	69.81	79.78	89.76	47
14	9.9727	19.945	29.918	39.891	49.864	59.84	69.81	79.78	89.75	46
15	9.9725	19.945	29.918	39.890	49.863	59.84	69.81	79.78	89.75	45
16	9.9723	19.945*	29.917	39.889	49.861	59.83	69.81	79.78	89.75	44
17	9.9721	19.944	29.916	39.888	49.860	59.83	69.80	79.78	89.75*	43
18	9.9719	19.944	29.916	39.887	49.859	59.83	69.80	79.77	89.75*	42
19	9.9716	19.943	29.915*	39.887	49.858	59.83	69.80	79.77	89.74	41
20	9.9714	19.943	29.914	39.886	49.857	59.83	69.80	79.77	89.74	40
21	9.9712	19.942	29.914	39.885*	49.856	59.83	69.80	79.77	89.74	39
22	9.9710	19.942	29.913	39.884	49.855*	59.83	69.80	79.77	89.74	38
23	9.9708	19.942	29.912	39.883	49.854	59.82	69.80	79.77	89.74	37
24	9.9705	19.941	29.912	39.882	49.853	59.82	69.79	79.76	89.73	36
25	9.9703	19.941	29.911	39.881	49.852	59.82	69.79	79.76	89.73	35
26	9.9701	19.940	29.910	39.880	49.850	59.82	69.79	79.76	89.73	34
27	9.9699	19.940	29.910	39.879	49.849	59.82	69.79	79.76	89.73	33
28	9.9696	19.939	29.909	39.879	49.848	59.82	69.79	79.76	89.73	32
29	9.9694	19.939	29.908	39.878	49.847	59.82	69.79	79.76	89.72	31
30	9.9692	19.938	29.908	39.877	49.846	59.82	69.78	79.75	89.72	30
31	9.9689	19.938	29.907	39.876	49.845*	59.81	69.78	79.75	89.72	29
32	9.9687	19.937	29.906	39.875*	49.844	59.81	69.78	79.75*	89.72	28
33	9.9685*	19.937	29.905	39.874	49.842	59.81	69.78	79.75*	89.72	27
34	9.9683	19.937	29.905*	39.873	49.841	59.81	69.78	79.75*	89.71	26
35	9.9680	19.936	29.904	39.872	49.840	59.81	69.78	79.74	89.71	25
36	9.9678	19.936	29.903	39.871	49.839	59.81	69.77	79.74	89.71	24
37	9.9676	19.935	29.903	39.870	49.838	59.81	69.77	79.74	89.71	23
38	9.9673	19.935*	29.902	39.869	49.837	59.80	69.77	79.74	89.71	22
39	9.9671	19.934	29.901	39.868	49.835	59.80	69.77	79.74	89.70	21
40	9.9668	19.934	29.901	39.867	49.834	59.80	69.77	79.73	89.70	20
41	9.9666	19.933	29.900	39.866	49.833	59.80	69.77	79.73	89.70	19
42	9.9664	19.933	29.899	39.865	49.832	59.80	69.76	79.73	89.70	18
43	9.9661	19.932	29.898	39.865*	49.831	59.80	69.76	79.73	89.70	17
44	9.9659	19.932	29.898	39.864	49.830	59.80	69.76	79.73	89.69	16
45	9.9657	19.931	29.897	39.863	49.828	59.79	69.76	79.73	89.69	15
46	9.9654	19.931	29.896	39.862	49.827	59.79	69.76	79.72	89.69	14
47	9.9652	19.930	29.896	39.861	49.826	59.79	69.76	79.72	89.69	13
48	9.9649	19.930	29.895*	39.860	49.825*	59.79	69.75	79.72	89.68	12
49	9.9647	19.929	29.894	39.859	49.823	59.79	69.75	79.72	89.68	11
50	9.9644	19.929	29.893	39.858	49.822	59.79	69.75	79.72	89.68	10
51	9.9642	19.928	29.893	39.857	49.821	59.79	69.75*	79.71	89.68	9
52	9.9639	19.928	29.892	39.856	49.820	59.78	69.75*	79.71	89.68	8
53	9.9637	19.927	29.891	39.855*	49.819	59.78	69.75*	79.71	89.67	7
54	9.9635*	19.927	29.890	39.854	49.817	59.78	69.74	79.71	89.67	6
55	9.9632	19.926	29.890	39.853	49.816	59.78	69.74	79.71	89.67	5
56	9.9630	19.926	29.889	39.852	49.815*	59.78	69.74	79.70	89.67	4
57	9.9627	19.925	29.888	39.851	49.814	59.78	69.74	79.70	89.66	3
58	9.9625*	19.925	29.887	39.850	49.812	59.77	69.74	79.70	89.66	2
59	9.9622	19.924	29.887	39.849	49.811	59.77	69.74	79.70	89.66	1
60	9.9619	19.924	29.886	39.848	49.810	59.77	69.73	79.70	89.66	0
	10	20	30	40	50	60	70	80	90	

十分之一及百分之一公尺数的改正

	0	1	2	3	4
0	00	01	02	03	04
1	10	11	12	13	14
2	20	21	22	23	24
3	30	31	32	33	34
4	40	41	42	43	44
5	50	51	52	53	54
6	60	61	62	63	64
7	70	71	72	73	74
8	80	81	82	83	84
9	90	91	92	93	94

	5	6	7	8	9
0	05	06	07	08	09
1	15	16	17	18	19
2	25	26	27	28	29
3	35	36	37	38	39
4	45	46	47	48	49
5	55	56	57	58	59
6	65	66	67	68	69
7	75	76	77	78	79
8	85	86	87	88	89
9	95	96	97	98	99

十分之一的改正

	2	3	5
1	0.2	0.3	0.5
2	0.4	0.6	1.0
3	0.6	0.9	1.5
4	0.8	1.2	2.0
5	1.0	1.5	2.5
6	1.2	1.8	3.0
7	1.4	2.1	3.5
8	1.6	2.4	4.0
9	1.8	2.7	4.5

	6	8	9
1	0.6	0.8	0.9
2	1.2	1.6	1.8
3	1.8	2.4	2.7
4	2.4	3.2	3.6
5	3.0	4.0	4.5
6	3.6	4.8	5.4
7	4.2	5.6	6.3
8	4.8	6.4	7.2
9	5.4	7.2	8.1

十分之一及百分之一公尺数的改正

	0	1	2	3	4
0	00	01	02	03	04
1	10	11	12	13	14
2	20	21	22	23	24
3	30	31	32	33	34
4	40	41	42	43	44
5	50	51	52	53	54
6	60	61	62	63	64
7	70	71	72	73	74
8	80	81	82	83	84
9	90	91	92	93	94

	5	6	7	8	9
0	05	06	07	08	09
1	15	16	17	18	19
2	25	26	27	28	29
3	35	36	37	38	39
4	45	46	47	48	49
5	55	56	57	58	59
6	65	66	67	68	69
7	75	76	77	78	79
8	85	86	87	88	89
9	95	96	97	98	99

+ 84°
- 274°

Δy

85°

Sin

85° +
285° -

十分之一及百分之一公尺数的改正

	0	1	2	3	4
0	00	00	00	00	00
1	01	01	01	01	01
2	02	02	02	02	02
3	03	03	03	03	03
4	04	04	04	04	04
5	05	05	05	05	05
6	06	06	06	06	06
7	07	07	07	07	07
8	08	08	08	08	08
9	09	09	09	09	09

	0	1	2	3	4
0	00	01	02	03	04
1	01	02	03	04	05
2	02	03	04	05	06
3	03	04	05	06	07
4	04	05	06	07	08
5	05	06	07	08	09
6	06	07	08	09	10
7	07	08	09	10	11
8	08	09	10	11	12
9	09	10	11	12	13

十分之一及百分之一的改正

	11	12	14
1	1.1	1.2	1.4
2	2.2	2.4	2.8
3	3.3	3.6	4.2
4	4.4	4.8	5.6
5	5.5	6.0	7.0
6	6.6	7.2	8.4
7	7.7	8.4	9.8
8	8.8	9.6	11.2
9	9.9	10.8	12.6

	15	29
1	1.5	2.9
2	3.0	5.8
3	4.5	8.7
4	6.0	11.6
5	7.5	14.5
6	9.0	17.4
7	10.5	20.3
8	12.0	23.2
9	13.5	26.1

十分之一及百分之一公尺数的改正

	0	1	2	3	4
0	00	00	00	00	00
1	01	01	01	01	01
2	02	02	02	02	02
3	03	03	03	03	03
4	04	04	04	04	04
5	05	05	05	05	05
6	06	06	06	06	06
7	07	07	07	07	07
8	08	08	08	08	08
9	09	09	09	09	09

	5	6	7	8	9
0	00	00	01	01	01
1	01	01	02	02	02
2	02	02	03	03	03
3	03	03	04	04	04
4	04	04	05	05	05
5	05	05	06	06	06
6	06	06	07	07	07
7	07	07	08	08	08
8	08	08	09	09	09
9	09	09	10	10	10

	10	20	30	40	50	60	70	80	90	
0	0.6976	1.395	2.093	2.790	3.488	4.19	4.88	5.58	6.28	87
1	0.7005*	1.401	2.101	2.802	3.502	4.20	4.90	5.60	6.30	59
2	0.7034	1.407	2.110	2.813	3.517	4.22	4.92	5.63	6.33	58
3	0.7063	1.413	2.119	2.825	3.531	4.24	4.94	5.65	6.36	57
4	0.7092	1.418	2.128	2.837	3.546	4.26	4.96	5.67	6.38	56
5	0.7121	1.424	2.136	2.848	3.560	4.27	4.98	5.70	6.41	55
6	0.7150*	1.430	2.145*	2.860	3.575*	4.29	5.00	5.72	6.43	54
7	0.7179	1.436	2.154	2.872	3.589	4.31	5.03	5.74	6.46	53
8	0.7208	1.442	2.162	2.883	3.604	4.32	5.05*	5.77	6.49	52
9	0.7237	1.447	2.171	2.895*	3.618	4.34	5.07	5.79	6.51	51
10	0.7266	1.453	2.180	2.906	3.633	4.36	5.09	5.81	6.54	50
11	0.7295*	1.459	2.188	2.918	3.647	4.38	5.11	5.84	6.57	49
12	0.7324	1.465*	2.197	2.930	3.662	4.39	5.13	5.86	6.59	48
13	0.7353	1.471	2.206	2.941	3.676	4.41	5.15*	5.88	6.62	47
14	0.7382	1.476	2.215*	2.953	3.691	4.43	5.17	5.91	6.64	46
15	0.7411	1.482	2.223	2.964	3.705	4.45*	5.19	5.93	6.67	45
16	0.7440	1.488	2.232	2.976	3.720	4.46	5.21	5.95	6.70	44
17	0.7469	1.494	2.241	2.988	3.734	4.48	5.23	5.98	6.72	43
18	0.7498	1.500*	2.249	2.999	3.749	4.50*	5.25*	6.00	6.75*	42
19	0.7527	1.505	2.258	3.011	3.763	4.52	5.27	6.02	6.77	41
20	0.7556	1.511	2.267	3.022	3.778	4.53	5.29	6.04	6.80	40
21	0.7585*	1.517	2.275	3.034	3.792	4.55	5.31	6.07	6.83	39
22	0.7614	1.523	2.284	3.046	3.807	4.57	5.33	6.09	6.85	38
23	0.7643	1.529	2.293	3.057	3.821	4.59	5.35	6.11	6.88	37
24	0.7672	1.534	2.302	3.069	3.836	4.60	5.37	6.14	6.90	36
25	0.7701	1.540	2.310	3.080	3.850	4.62	5.39	6.16	6.93	35
26	0.7730	1.546	2.319	3.092	3.865*	4.64	5.41	6.18	6.96	34
27	0.7759	1.552	2.328	3.104	3.879	4.66	5.43	6.21	6.98	33
28	0.7788	1.558	2.336	3.115	3.894	4.67	5.45	6.23	7.01	32
29	0.7817	1.563	2.345	3.127	3.908	4.69	5.47	6.25	7.04	31
30	0.7846	1.569	2.354	3.138	3.923	4.71	5.49	6.28	7.06	30
31	0.7875*	1.575*	2.362	3.150*	3.937	4.72	5.51	6.30	7.09	29
32	0.7904	1.581	2.371	3.162	3.952	4.74	5.53	6.32	7.11	28
33	0.7933	1.587	2.380	3.173	3.966	4.76	5.55	6.35*	7.14	27
34	0.7962	1.592	2.389	3.185*	3.981	4.78	5.57	6.37	7.17	26
35	0.7991	1.598	2.397	3.196	3.995	4.79	5.59	6.39	7.19	25
36	0.8020	1.604	2.406	3.208	4.010	4.81	5.61	6.42	7.22	24
37	0.8049	1.610	2.415*	3.220	4.024	4.83	5.63	6.44	7.24	23
38	0.8078	1.616	2.423	3.231	4.039	4.85*	5.65	6.46	7.27	22
39	0.8107	1.621	2.432	3.243	4.053	4.86	5.67	6.49	7.30	21
40	0.8136	1.627	2.441	3.254	4.068	4.88	5.70	6.51	7.32	20
41	0.8165*	1.633	2.449	3.266	4.082	4.90	5.72	6.53	7.35*	19
42	0.8194	1.639	2.458	3.278	4.097	4.92	5.74	6.56	7.37	18
43	0.8223	1.645*	2.467	3.289	4.111	4.93	5.76	6.58	7.40	17
44	0.8252	1.650	2.476	3.301	4.126	4.95	5.78	6.60	7.43	16
45	0.8281	1.656	2.484	3.312	4.140	4.97	5.80	6.62	7.45	15
46	0.8310	1.662	2.493	3.324	4.155*	4.99	5.82	6.65*	7.48	14
47	0.8339	1.668	2.502	3.336	4.169	5.00	5.84	6.67	7.50	13
48	0.8368	1.674	2.510	3.347	4.184	5.02	5.86	6.69	7.53	12
49	0.8397	1.679	2.519	3.359	4.198	5.04	5.88	6.72	7.56	11
50	0.8426	1.685	2.528	3.370	4.213	5.06	5.90	6.74	7.58	10
51	0.8455*	1.691	2.536	3.382	4.227	5.07	5.92	6.76	7.61	9
52	0.8484	1.697	2.545	3.393	4.242	5.09	5.94	6.79	7.64	8
53	0.8513	1.703	2.554	3.405	4.256	5.11	5.96	6.81	7.66	7
54	0.8542	1.708	2.563	3.417	4.271	5.13	5.98	6.83	7.69	6
55	0.8571	1.714	2.571	3.428	4.285	5.14	6.00	6.86	7.71	5
56	0.8600	1.720	2.580	3.440	4.300	5.16	6.02	6.88	7.74	4
57	0.8629	1.726	2.589	3.451	4.314	5.18	6.04	6.90	7.77	3
58	0.8658	1.732	2.597	3.463	4.329	5.19	6.06	6.93	7.79	2
59	0.8687	1.737	2.606	3.475*	4.343	5.21	6.08	6.95*	7.82	1
60	0.8716	1.743	2.615*	3.486	4.358	5.23	6.10	6.97	7.84	0

$\begin{matrix} -184^\circ \\ +4^\circ \end{matrix}$
 Δx
 85°
 Δy
 $\begin{matrix} 85^\circ + \\ 175^\circ + \end{matrix}$

-185°
+5°

Cos

5°

Δx

354°
174°

	10	20	30	40	50	60	70	80	90	
0	9.9619	19.924	29.886	39.848	49.810	59.77	69.73	79.70	89.66	60
1	9.9617	19.923	29.885	39.847	49.808	59.77	69.73	79.69	89.66	59
2	9.9614	19.923	29.884	39.846	49.807	59.77	69.73	79.69	89.65	58
3	9.9612	19.922	29.884	39.845*	49.806	59.77	69.73	79.69	89.65	57
4	9.9609	19.922	29.883	39.844	49.805*	59.77	69.73	79.69	89.65*	56
5	9.9607	19.921	29.882	39.843	49.803	59.76	69.72	79.69	89.65*	55
6	9.9604	19.921	29.881	39.842	49.802	59.76	69.72	79.68	89.64	54
7	9.9602	19.920	29.880	39.841	49.801	59.76	69.72	79.68	89.64	53
8	9.9599	19.920	29.880	39.840	49.799	59.76	69.72	79.68	89.64	52
9	9.9596	19.919	29.879	39.839	49.798	59.76	69.72	79.68	89.64	51
10	9.9594	19.919	29.878	39.837	49.797	59.76	69.72	79.67	89.63	50
11	9.9591	19.918	29.877	39.836	49.796	59.75	69.71	79.67	89.63	49
12	9.9588	19.918	29.877	39.835	49.794	59.75	69.71	79.67	89.63	48
13	9.9586	19.917	29.876	39.834	49.793	59.75	69.71	79.67	89.63	47
14	9.9583	19.917	29.875*	39.833	49.792	59.75*	69.71	79.67	89.62	46
15	9.9580	19.916	29.874	39.832	49.790	59.75*	69.71	79.66	89.62	45
16	9.9578	19.916	29.873	39.831	49.789	59.75*	69.70	79.66	89.62	44
17	9.9575	19.915	29.873	39.830	49.788	59.75*	69.70	79.66	89.62	43
18	9.9572	19.914	29.872	39.829	49.786	59.74	69.70	79.66	89.62	42
19	9.9570	19.914	29.871	39.828	49.785*	59.74	69.70	79.66	89.61	41
20	9.9567	19.913	29.870	39.827	49.784	59.74	69.70	79.65	89.61	40
21	9.9564	19.913	29.869	39.826	49.782	59.74	69.70	79.65	89.61	39
22	9.9562	19.912	29.868	39.825*	49.781	59.74	69.69	79.65*	89.61	38
23	9.9559	19.912	29.868	39.824	49.779	59.74	69.69	79.65*	89.60	37
24	9.9556	19.911	29.867	39.822	49.778	59.73	69.69	79.64	89.60	36
25	9.9553	19.911	29.866	39.821	49.777	59.73	69.69	79.64	89.60	35
26	9.9551	19.910	29.865	39.820	49.775	59.73	69.69	79.64	89.60	34
27	9.9548	19.910	29.864	39.819	49.774	59.73	69.68	79.64	89.59	33
28	9.9545	19.909	29.864	39.818	49.773	59.73	69.68	79.64	89.59	32
29	9.9542	19.908	29.863	39.817	49.771	59.73	69.68	79.63	89.59	31
30	9.9540	19.908	29.862	39.816	49.770	59.72	69.68	79.63	89.59	30
31	9.9537	19.907	29.861	39.815*	49.768	59.72	69.68	79.63	89.58	29
32	9.9534	19.907	29.860	39.814	49.767	59.72	69.67	79.63	89.58	28
33	9.9531	19.906	29.859	39.812	49.766	59.72	69.67	79.62	89.58	27
34	9.9528	19.906	29.859	39.811	49.764	59.72	69.67	79.62	89.58	26
35	9.9526	19.905	29.858	39.810	49.763	59.72	69.67	79.62	89.57	25
36	9.9523	19.905*	29.857	39.809	49.761	59.71	69.67	79.62	89.57	24
37	9.9520	19.904	29.856	39.808	49.760	59.71	69.66	79.62	89.57	23
38	9.9517	19.903	29.855	39.807	49.759	59.71	69.66	79.61	89.57	22
39	9.9514	19.903	29.854	39.806	49.757	59.71	69.66	79.61	89.56	21
40	9.9511	19.902	29.853	39.805*	49.756	59.71	69.66	79.61	89.56	20
41	9.9508	19.902	29.853	39.803	49.754	59.71	69.66	79.61	89.56	19
42	9.9506	19.901	29.852	39.802	49.753	59.70	69.65	79.60	89.56	18
43	9.9503	19.901	29.851	39.801	49.751	59.70	69.65	79.60	89.55	17
44	9.9500*	19.900	29.850*	39.800	49.750*	59.70	69.65*	79.60	89.55*	16
45	9.9497	19.899	29.849	39.799	49.748	59.70	69.65*	79.60	89.55*	15
46	9.9494	19.899	29.848	39.798	49.747	59.70	69.65*	79.60	89.54	14
47	9.9491	19.898	29.847	39.796	49.746	59.69	69.64	79.59	89.54	13
48	9.9488	19.898	29.846	39.795	49.744	59.69	69.64	79.59	89.54	12
49	9.9485	19.897	29.846	39.794	49.743	59.69	69.64	79.59	89.54	11
50	9.9482	19.896	29.845*	39.793	49.741	59.69	69.64	79.59	89.53	10
51	9.9479	19.896	29.844	39.792	49.740	59.69	69.64	79.58	89.53	9
52	9.9476	19.895	29.843	39.790	49.738	59.69	69.63	79.58	89.53	8
53	9.9473	19.895*	29.842	39.789	49.737	59.68	69.63	79.58	89.53	7
54	9.9470	19.894	29.841	39.788	49.735	59.68	69.63	79.58	89.52	6
55	9.9467	19.893	29.840	39.787	49.734	59.68	69.63	79.57	89.52	5
56	9.9464	19.893	29.839	39.786	49.732	59.68	69.62	79.57	89.52	4
57	9.9461	19.892	29.838	39.785*	49.731	59.68	69.62	79.57	89.52	3
58	9.9458	19.892	29.837	39.783	49.729	59.67	69.62	79.57	89.51	2
59	9.9455	19.891	29.837	39.782	49.728	59.67	69.62	79.56	89.51	1
60	9.9452	19.890	29.836	39.781	49.726	59.67	69.62	79.56	89.51	0

十分之一及百分之公尺数的改正

	0	1	2	3	4
0	00	01	02	03	04
1	10	11	12	13	14
2	20	21	22	23	24
3	30	31	32	33	34
4	40	41	42	43	44
5	50*	51	52	53	54
6	60	61	62	63	64
7	70	71	72	73	74
8	80	81	82	83	84
9	90	91	92	93	94

	5	6	7	8	9
0	05*	06	07	08	09
1	15*	16	17	18	19
2	25*	26	27	28	29
3	35*	36	37	38	39
4	45*	46	47	48	49
5	55*	56	57	58	59
6	65*	66	67	68	69
7	75*	76	77	78	79
8	85*	86	87	88	89
9	95*	96	97	98	99

十分之一一分的改正

	2	3	5
1	0.2	0.3	0.5
2	0.4	0.6	1.0
3	0.6	0.9	1.5
4	0.8	1.2	2.0
5	1.0	1.5	2.5
6	1.2	1.8	3.0
7	1.4	2.1	3.5
8	1.6	2.4	4.0
9	1.8	2.7	4.5

	6	8	9
1	0.6	0.8	0.9
2	1.2	1.6	1.8
3	1.8	2.4	2.7
4	2.4	3.2	3.6
5	3.0	4.0	4.5
6	3.6	4.8	5.4
7	4.2	5.6	6.3
8	4.8	6.4	7.2
9	5.4	7.2	8.1

十分之一及百分之公尺数的改正

	0	1	2	3	4
0	00	01	02	03	04
1	10	11	12	13	14
2	20	21	22	23	24
3	30	31	32	33	34
4	40	41	42	43	44
5	50*	51	52	53	54
6	60	61	62	63	64
7	70	71	72	73	74
8	80	81	82	83	84
9	90	91	92	93	94

	5	6	7	8	9
0	05*	06	07	08	09
1	15*	16	17	18	19
2	25*	26	27	28	29
3	35*	36	37	38	39
4	45*	46	47	48	49
5	55*	56	57	58	59
6	65*	66	67	68	69
7	75*	76	77	78	79
8	85*	86	87	88	89
9	95*	96	97	98	99

+85°
-275°

Δy

84°

Sin

84°
284°