TABLE 4

359° | 001°
181° | 179°

Traverse **1°** Table

359° | 001°
181° | 179°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.0	61	61.0	1.1	121	121.0	2.1	181	181.0	3.2	241	241.0	4.2
2	2.0	0.0	62	62.0	1.1	22	122.0	2.1	82	182.0	3.2	42	242.0	4.2
3	3.0	0.1	63	63.0	1.1	23	123.0	2.1	83	183.0	3.2	43	243.0	4.2
4	4.0	0.1	64	64.0	1.1	24	124.0	2.2	84	184.0	3.2	44	244.0	4.3
5	5.0	0.1	65	65.0	1.1	25	125.0	2.2	85	185.0	3.2	45	245.0	4.3
6	6.0	0.1	66	66.0	1.2	26	126.0	2.2	86	186.0	3.2	46	246.0	4.3
7	7.0	0.1	67	67.0	1.2	27	127.0	2.2	87	187.0	3.3	47	247.0	4.3
8	8.0	0.1	68	68.0	1.2	28	128.0	2.2	88	188.0	3.3	48	248.0	4.3
9	9.0	0.2	69	69.0	1.2	29	129.0	2.3	89	189.0	3.3	49	249.0	4.3
10	10.0	0.2	70	70.0	1.2	30	130.0	2.3	90	190.0	3.3	50	250.0	4.4
11	11.0	0.2	71	71.0	1.2	131	131.0	2.3	191	191.0	3.3	251	251.0	4.4
12	12.0	0.2	72	72.0	1.3	32	132.0	2.3	92	192.0	3.4	52	252.0	4.4
13	13.0	0.2	73	73.0	1.3	33	133.0	2.3	93	193.0	3.4	53	253.0	4.4
14	14.0	0.2	74	74.0	1.3	34	134.0	2.3	94	194.0	3.4	54	254.0	4.4
15	15.0	0.3	75	75.0	1.3	35	135.0	2.4	95	195.0	3.4	55	255.0	4.5
16	16.0	0.3	76	76.0	1.3	36	136.0	2.4	96	196.0	3.4	56	256.0	4.5
17	17.0	0.3	77	77.0	1.3	37	137.0	2.4	97	197.0	3.4	57	257.0	4.5
18	18.0	0.3	78	78.0	1.4	38	138.0	2.4	98	198.0	3.5	58	258.0	4.5
19	19.0	0.3	79	79.0	1.4	39	139.0	2.4	99	199.0	3.5	59	259.0	4.5
20	20.0	0.3	80	80.0	1.4	40	140.0	2.4	200	200.0	3.5	60	260.0	4.5
21	21.0	0.4	81	81.0	1.4	141	141.0	2.5	201	201.0	3.5	261	261.0	4.6
22	22.0	0.4	82	82.0	1.4	42	142.0	2.5	02	202.0	3.5	62	262.0	4.6
23	23.0	0.4	83	83.0	1.4	43	143.0	2.5	03	203.0	3.5	63	263.0	4.6
24	24.0	0.4	84	84.0	1.5	44	144.0	2.5	04	204.0	3.6	64	264.0	4.6
25	25.0	0.4	85	85.0	1.5	45	145.0	2.5	05	205.0	3.6	65	265.0	4.6
26	26.0	0.5	86	86.0	1.5	46	146.0	2.5	06	206.0	3.6	66	266.0	4.6
27	27.0	0.5	87	87.0	1.5	47	147.0	2.6	07	207.0	3.6	67	267.0	4.7
28	28.0	0.5	88	88.0	1.5	48	148.0	2.6	08	208.0	3.6	68	268.0	4.7
29	29.0	0.5	89	89.0	1.6	49	149.0	2.6	09	209.0	3.6	69	269.0	4.7
30	30.0	0.5	90	90.0	1.6	50	150.0	2.6	10	210.0	3.7	70	270.0	4.7
31	31.0	0.5	91	91.0	1.6	151	151.0	2.6	211	211.0	3.7	271	271.0	4.7
32	32.0	0.6	92	92.0	1.6	52	152.0	2.7	12	212.0	3.7	72	272.0	4.7
33	33.0	0.6	93	93.0	1.6	53	153.0	2.7	13	213.0	3.7	73	273.0	4.8
34	34.0	0.6	94	94.0	1.6	54	154.0	2.7	14	214.0	3.7	74	274.0	4.8
35	35.0	0.6	95	95.0	1.7	55	155.0	2.7	15	215.0	3.8	75	275.0	4.8
36	36.0	0.6	96	96.0	1.7	56	156.0	2.7	16	216.0	3.8	76	276.0	4.8
37	37.0	0.6	97	97.0	1.7	57	157.0	2.7	17	217.0	3.8	77	277.0	4.8
38	38.0	0.7	98	98.0	1.7	58	158.0	2.8	18	218.0	3.8	78	278.0	4.9
39	39.0	0.7	99	99.0	1.7	59	159.0	2.8	19	219.0	3.8	79	279.0	4.9
40	40.0	0.7	100	100.0	1.7	60	160.0	2.8	20	220.0	3.8	80	280.0	4.9
41	41.0	0.7	101	101.0	1.8	161	161.0	2.8	221	221.0	3.9	281	281.0	4.9
42	42.0	0.7	02	102.0	1.8	62	162.0	2.8	22	222.0	3.9	82	282.0	4.9
43	43.0	0.8	03	103.0	1.8	63	163.0	2.8	23	223.0	3.9	83	283.0	4.9
44	44.0	0.8	04	104.0	1.8	64	164.0	2.9	24	224.0	3.9	84	284.0	5.0
45	45.0	0.8	05	105.0	1.8	65	165.0	2.9	25	225.0	3.9	85	285.0	5.0
46	46.0	0.8	06	106.0	1.8	66	166.0	2.9	26	226.0	3.9	86	286.0	5.0
47	47.0	0.8	07	107.0	1.9	67	167.0	2.9	27	227.0	4.0	87	287.0	5.0
48	48.0	0.8	08	108.0	1.9	68	168.0	2.9	28	228.0	4.0	88	288.0	5.0
49	49.0	0.9	09	109.0	1.9	69	169.0	2.9	29	229.0	4.0	89	289.0	5.0
50	50.0	0.9	10	110.0	1.9	70	170.0	3.0	30	230.0	4.0	90	290.0	5.1
51	51.0	0.9	111	111.0	1.9	171	171.0	3.0	231	231.0	4.0	291	291.0	5.1
52	52.0	0.9	12	112.0	2.0	72	172.0	3.0	32	232.0	4.0	92	292.0	5.1
53	53.0	0.9	13	113.0	2.0	73	173.0	3.0	33	233.0	4.1	93	293.0	5.1
54	54.0	0.9	14	114.0	2.0	74	174.0	3.0	34	234.0	4.1	94	294.0	5.1
55	55.0	1.0	15	115.0	2.0	75	175.0	3.1	35	235.0	4.1	95	295.0	5.1
56	56.0	1.0	16	116.0	2.0	76	176.0	3.1	36	236.0	4.1	96	296.0	5.2
57	57.0	1.0	17	117.0	2.0	77	177.0	3.1	37	237.0	4.1	97	297.0	5.2
58	58.0	1.0	18	118.0	2.1	78	178.0	3.1	38	238.0	4.2	98	298.0	5.2
59	59.0	1.0	19	119.0	2.1	79	179.0	3.1	39	239.0	4.2	99	299.0	5.2
60	60.0	1.0	20	120.0	2.1	80	180.0	3.1	40	240.0	4.2	300	300.0	5.2
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

271° | 089°
269° | 091°

89°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

359° | 001°
181° | 179°

Traverse **1°** Table

359° | 001°
181° | 179°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	301.0	5.3	361	360.9	6.3	421	420.9	7.3	481	480.9	8.4	541	540.9	9.4
02	302.0	5.3	62	361.9	6.3	22	421.9	7.4	82	481.9	8.4	42	541.9	9.5
03	303.0	5.3	63	362.9	6.3	23	422.9	7.4	83	482.9	8.4	43	542.9	9.5
04	304.0	5.3	64	363.9	6.4	24	423.9	7.4	84	483.9	8.4	44	543.9	9.5
05	305.0	5.3	65	364.9	6.4	25	424.9	7.4	85	484.9	8.5	45	544.9	9.5
06	306.0	5.3	66	365.9	6.4	26	425.9	7.4	86	485.9	8.5	46	545.9	9.5
07	307.0	5.4	67	366.9	6.4	27	426.9	7.5	87	486.9	8.5	47	546.9	9.5
08	308.0	5.4	68	367.9	6.4	28	427.9	7.5	88	487.9	8.5	48	547.9	9.6
09	309.0	5.4	69	368.9	6.4	29	428.9	7.5	89	488.9	8.5	49	548.9	9.6
10	310.0	5.4	70	369.9	6.5	30	429.9	7.5	90	489.9	8.6	50	549.9	9.6
311	311.0	5.4	371	370.9	6.5	431	430.9	7.5	491	490.9	8.6	551	550.9	9.6
12	312.0	5.4	72	371.9	6.5	32	431.9	7.5	92	491.9	8.6	52	551.9	9.6
13	313.0	5.5	73	372.9	6.5	33	432.9	7.6	93	492.9	8.6	53	552.9	9.7
14	314.0	5.5	74	373.9	6.5	34	433.9	7.6	94	493.9	8.6	54	553.9	9.7
15	315.0	5.5	75	374.9	6.5	35	434.9	7.6	95	494.9	8.6	55	554.9	9.7
16	316.0	5.5	76	375.9	6.6	36	435.9	7.6	96	495.9	8.7	56	555.9	9.7
17	317.0	5.5	77	376.9	6.6	37	436.9	7.6	97	496.9	8.7	57	556.9	9.7
18	318.0	5.5	78	377.9	6.6	38	437.9	7.6	98	497.9	8.7	58	557.9	9.7
19	319.0	5.6	79	378.9	6.6	39	438.9	7.7	99	498.9	8.7	59	558.9	9.8
20	320.0	5.6	80	379.9	6.6	40	439.9	7.7	500	499.9	8.7	60	559.9	9.8
321	321.0	5.6	381	380.9	6.6	441	440.9	7.7	501	500.9	8.7	561	560.9	9.8
22	322.0	5.6	82	381.9	6.7	42	441.9	7.7	02	501.9	8.8	62	561.9	9.8
23	323.0	5.6	83	382.9	6.7	43	442.9	7.7	03	502.9	8.8	63	562.9	9.8
24	324.0	5.7	84	383.9	6.7	44	443.9	7.7	04	503.9	8.8	64	563.9	9.8
25	325.0	5.7	85	384.9	6.7	45	444.9	7.8	05	504.9	8.8	65	564.9	9.9
26	326.0	5.7	86	385.9	6.7	46	445.9	7.8	06	505.9	8.8	66	565.9	9.9
27	327.0	5.7	87	386.9	6.8	47	446.9	7.8	07	506.9	8.8	67	566.9	9.9
28	328.0	5.7	88	387.9	6.8	48	447.9	7.8	08	507.9	8.9	68	567.9	9.9
29	328.9	5.7	89	388.9	6.8	49	448.9	7.8	09	508.9	8.9	69	568.9	9.9
30	329.9	5.8	90	389.9	6.8	50	449.9	7.9	10	509.9	8.9	70	569.9	9.9
331	330.9	5.8	391	390.9	6.8	451	450.9	7.9	511	510.9	8.9	571	570.9	10.0
32	331.9	5.8	92	391.9	6.8	52	451.9	7.9	12	511.9	8.9	72	571.9	10.0
33	332.9	5.8	93	392.9	6.9	53	452.9	7.9	13	512.9	9.0	73	572.9	10.0
34	333.9	5.8	94	393.9	6.9	54	453.9	7.9	14	513.9	9.0	74	573.9	10.0
35	334.9	5.8	95	394.9	6.9	55	454.9	7.9	15	514.9	9.0	75	574.9	10.0
36	335.9	5.9	96	395.9	6.9	56	455.9	8.0	16	515.9	9.0	76	575.9	10.1
37	336.9	5.9	97	396.9	6.9	57	456.9	8.0	17	516.9	9.0	77	576.9	10.1
38	337.9	5.9	98	397.9	6.9	58	457.9	8.0	18	517.9	9.0	78	577.9	10.1
39	338.9	5.9	99	398.9	7.0	59	458.9	8.0	19	518.9	9.1	79	578.9	10.1
40	339.9	5.9	400	399.9	7.0	60	459.9	8.0	20	519.9	9.1	80	579.9	10.1
341	340.9	6.0	401	400.9	7.0	461	460.9	8.0	521	520.9	9.1	581	580.9	10.1
42	341.9	6.0	02	401.9	7.0	62	461.9	8.1	22	521.9	9.1	82	581.9	10.2
43	342.9	6.0	03	402.9	7.0	63	462.9	8.1	23	522.9	9.1	83	582.9	10.2
44	343.9	6.0	04	403.9	7.1	64	463.9	8.1	24	523.9	9.1	84	583.9	10.2
45	344.9	6.0	05	404.9	7.1	65	464.9	8.1	25	524.9	9.2	85	584.9	10.2
46	345.9	6.0	06	405.9	7.1	66	465.9	8.1	26	525.9	9.2	86	585.9	10.2
47	346.9	6.1	07	406.9	7.1	67	466.9	8.2	27	526.9	9.2	87	586.9	10.2
48	347.9	6.1	08	407.9	7.1	68	467.9	8.2	28	527.9	9.2	88	587.9	10.3
49	348.9	6.1	09	408.9	7.1	69	468.9	8.2	29	528.9	9.2	89	588.9	10.3
50	349.9	6.1	10	409.9	7.2	70	469.9	8.2	30	529.9	9.2	90	589.9	10.3
351	350.9	6.1	411	410.9	7.2	471	470.9	8.2	531	530.9	9.3	591	590.9	10.3
52	351.9	6.1	12	411.9	7.2	72	471.9	8.2	32	531.9	9.3	92	591.9	10.3
53	352.9	6.2	13	412.9	7.2	73	472.9	8.3	33	532.9	9.3	93	592.9	10.3
54	353.9	6.2	14	413.9	7.2	74	473.9	8.3	34	533.9	9.3	94	593.9	10.4
55	354.9	6.2	15	414.9	7.2	75	474.9	8.3	35	534.9	9.3	95	594.9	10.4
56	355.9	6.2	16	415.9	7.3	76	475.9	8.3	36	535.9	9.4	96	595.9	10.4
57	356.9	6.2	17	416.9	7.3	77	476.9	8.3	37	536.9	9.4	97	596.9	10.4
58	357.9	6.2	18	417.9	7.3	78	477.9	8.3	38	537.9	9.4	98	597.9	10.4
59	358.9	6.3	19	418.9	7.3	79	478.9	8.4	39	538.9	9.4	99	598.9	10.5
60	359.9	6.3	20	419.9	7.3	80	479.9	8.4	40	539.9	9.4	600	599.9	10.5
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

89°

271° | 089°
269° | 091°

TABLE 4

2° Traverse Table

358° | 002°
182° | 178°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.0	61	61.0	2.1	121	120.9	4.2	181	180.9	6.3	241	240.9	8.4
2	2.0	0.1	62	62.0	2.2	22	121.9	4.3	82	181.9	6.4	42	241.9	8.4
3	3.0	0.1	63	63.0	2.2	23	122.9	4.3	83	182.9	6.4	43	242.9	8.5
4	4.0	0.1	64	64.0	2.2	24	123.9	4.3	84	183.9	6.4	44	243.9	8.5
5	5.0	0.2	65	65.0	2.3	25	124.9	4.4	85	184.9	6.5	45	244.9	8.6
6	6.0	0.2	66	66.0	2.3	26	125.9	4.4	86	185.9	6.5	46	245.9	8.6
7	7.0	0.2	67	67.0	2.3	27	126.9	4.4	87	186.9	6.5	47	246.8	8.6
8	8.0	0.3	68	68.0	2.4	28	127.9	4.5	88	187.9	6.6	48	247.8	8.7
9	9.0	0.3	69	69.0	2.4	29	128.9	4.5	89	188.9	6.6	49	248.8	8.7
10	10.0	0.3	70	70.0	2.4	30	129.9	4.5	90	189.9	6.6	50	249.8	8.7
11	11.0	0.4	71	71.0	2.5	131	130.9	4.6	191	190.9	6.7	251	250.8	8.8
12	12.0	0.4	72	72.0	2.5	32	131.9	4.6	92	191.9	6.7	52	251.8	8.8
13	13.0	0.5	73	73.0	2.5	33	132.9	4.6	93	192.9	6.7	53	252.8	8.8
14	14.0	0.5	74	74.0	2.6	34	133.9	4.7	94	193.9	6.8	54	253.8	8.9
15	15.0	0.5	75	75.0	2.6	35	134.9	4.7	95	194.9	6.8	55	254.8	8.9
16	16.0	0.6	76	76.0	2.7	36	135.9	4.7	96	195.9	6.8	56	255.8	8.9
17	17.0	0.6	77	77.0	2.7	37	136.9	4.8	97	196.9	6.9	57	256.8	9.0
18	18.0	0.6	78	78.0	2.7	38	137.9	4.8	98	197.9	6.9	58	257.8	9.0
19	19.0	0.7	79	79.0	2.8	39	138.9	4.9	99	198.9	6.9	59	258.8	9.0
20	20.0	0.7	80	80.0	2.8	40	139.9	4.9	200	199.9	7.0	60	259.8	9.1
21	21.0	0.7	81	81.0	2.8	141	140.9	4.9	201	200.9	7.0	261	260.8	9.1
22	22.0	0.8	82	82.0	2.9	42	141.9	5.0	02	201.9	7.0	62	261.8	9.1
23	23.0	0.8	83	82.9	2.9	43	142.9	5.0	03	202.9	7.1	63	262.8	9.2
24	24.0	0.8	84	83.9	2.9	44	143.9	5.0	04	203.9	7.1	64	263.8	9.2
25	25.0	0.9	85	84.9	3.0	45	144.9	5.1	05	204.9	7.2	65	264.8	9.2
26	26.0	0.9	86	85.9	3.0	46	145.9	5.1	06	205.9	7.2	66	265.8	9.3
27	27.0	0.9	87	86.9	3.0	47	146.9	5.1	07	206.9	7.2	67	266.8	9.3
28	28.0	1.0	88	87.9	3.1	48	147.9	5.2	08	207.9	7.3	68	267.8	9.4
29	29.0	1.0	89	88.9	3.1	49	148.9	5.2	09	208.9	7.3	69	268.8	9.4
30	30.0	1.0	90	89.9	3.1	50	149.9	5.2	10	209.9	7.3	70	269.8	9.4
31	31.0	1.1	91	90.9	3.2	151	150.9	5.3	211	210.9	7.4	271	270.8	9.5
32	32.0	1.1	92	91.9	3.2	52	151.9	5.3	12	211.9	7.4	72	271.8	9.5
33	33.0	1.2	93	92.9	3.2	53	152.9	5.3	13	212.9	7.4	73	272.8	9.5
34	34.0	1.2	94	93.9	3.3	54	153.9	5.4	14	213.9	7.5	74	273.8	9.6
35	35.0	1.2	95	94.9	3.3	55	154.9	5.4	15	214.9	7.5	75	274.8	9.6
36	36.0	1.3	96	95.9	3.4	56	155.9	5.4	16	215.9	7.5	76	275.8	9.6
37	37.0	1.3	97	96.9	3.4	57	156.9	5.5	17	216.9	7.6	77	276.8	9.7
38	38.0	1.3	98	97.9	3.4	58	157.9	5.5	18	217.9	7.6	78	277.8	9.7
39	39.0	1.4	99	98.9	3.5	59	158.9	5.5	19	218.9	7.6	79	278.8	9.7
40	40.0	1.4	100	99.9	3.5	60	159.9	5.6	20	219.9	7.7	80	279.8	9.8
41	41.0	1.4	101	100.9	3.5	161	160.9	5.6	221	220.9	7.7	281	280.8	9.8
42	42.0	1.5	02	101.9	3.6	62	161.9	5.7	22	221.9	7.7	82	281.8	9.8
43	43.0	1.5	03	102.9	3.6	63	162.9	5.7	23	222.9	7.8	83	282.8	9.9
44	44.0	1.5	04	103.9	3.6	64	163.9	5.7	24	223.9	7.8	84	283.8	9.9
45	45.0	1.6	05	104.9	3.7	65	164.9	5.8	25	224.9	7.9	85	284.8	9.9
46	46.0	1.6	06	105.9	3.7	66	165.9	5.8	26	225.9	7.9	86	285.8	10.0
47	47.0	1.6	07	106.9	3.7	67	166.9	5.8	27	226.9	7.9	87	286.8	10.0
48	48.0	1.7	08	107.9	3.8	68	167.9	5.9	28	227.9	8.0	88	287.8	10.1
49	49.0	1.7	09	108.9	3.8	69	168.9	5.9	29	228.9	8.0	89	288.8	10.1
50	50.0	1.7	10	109.9	3.8	70	169.9	5.9	30	229.9	8.0	90	289.8	10.1
51	51.0	1.8	111	110.9	3.9	171	170.9	6.0	231	230.9	8.1	291	290.8	10.2
52	52.0	1.8	12	111.9	3.9	72	171.9	6.0	32	231.9	8.1	92	291.8	10.2
53	53.0	1.8	13	112.9	3.9	73	172.9	6.0	33	232.9	8.1	93	292.8	10.2
54	54.0	1.9	14	113.9	4.0	74	173.9	6.1	34	233.9	8.2	94	293.8	10.3
55	55.0	1.9	15	114.9	4.0	75	174.9	6.1	35	234.9	8.2	95	294.8	10.3
56	56.0	2.0	16	115.9	4.0	76	175.9	6.1	36	235.9	8.2	96	295.8	10.3
57	57.0	2.0	17	116.9	4.1	77	176.9	6.2	37	236.9	8.3	97	296.8	10.4
58	58.0	2.0	18	117.9	4.1	78	177.9	6.2	38	237.9	8.3	98	297.8	10.4
59	59.0	2.1	19	118.9	4.2	79	178.9	6.2	39	238.9	8.3	99	298.8	10.4
60	60.0	2.1	20	119.9	4.2	80	179.9	6.3	40	239.9	8.4	300	299.8	10.5
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

272° | 088°
268° | 092°

88°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

2° Traverse Table

358° | 002°
182° | 178°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	300.8	10.5	361	360.8	12.6	421	420.7	14.7	481	480.7	16.8	541	540.7	18.9
02	301.8	10.5	62	361.8	12.6	22	421.7	14.7	82	481.7	16.8	42	541.7	18.9
03	302.8	10.6	63	362.8	12.7	23	422.7	14.8	83	482.7	16.9	43	542.7	19.0
04	303.8	10.6	64	363.8	12.7	24	423.7	14.8	84	483.7	16.9	44	543.7	19.0
05	304.8	10.6	65	364.8	12.7	25	424.7	14.8	85	484.7	16.9	45	544.7	19.0
06	305.8	10.7	66	365.8	12.8	26	425.7	14.9	86	485.7	17.0	46	545.7	19.1
07	306.8	10.7	67	366.8	12.8	27	426.7	14.9	87	486.7	17.0	47	546.7	19.1
08	307.8	10.7	68	367.8	12.8	28	427.7	14.9	88	487.7	17.0	48	547.7	19.1
09	308.8	10.8	69	368.8	12.9	29	428.7	15.0	89	488.7	17.1	49	548.7	19.2
10	309.8	10.8	70	369.8	12.9	30	429.7	15.0	90	489.7	17.1	50	549.7	19.2
311	310.8	10.9	371	370.8	12.9	431	430.7	15.0	491	490.7	17.1	551	550.7	19.2
12	311.8	10.9	72	371.8	13.0	32	431.7	15.1	92	491.7	17.2	52	551.7	19.3
13	312.8	10.9	73	372.8	13.0	33	432.7	15.1	93	492.7	17.2	53	552.7	19.3
14	313.8	11.0	74	373.8	13.1	34	433.7	15.1	94	493.7	17.2	54	553.7	19.3
15	314.8	11.0	75	374.8	13.1	35	434.7	15.2	95	494.7	17.3	55	554.7	19.4
16	315.8	11.0	76	375.8	13.1	36	435.7	15.2	96	495.7	17.3	56	555.7	19.4
17	316.8	11.1	77	376.8	13.2	37	436.7	15.3	97	496.7	17.3	57	556.7	19.4
18	317.8	11.1	78	377.8	13.2	38	437.7	15.3	98	497.7	17.4	58	557.7	19.5
19	318.8	11.1	79	378.8	13.2	39	438.7	15.3	99	498.7	17.4	59	558.7	19.5
20	319.8	11.2	80	379.8	13.3	40	439.7	15.4	500	499.7	17.4	60	559.7	19.5
321	320.8	11.2	381	380.8	13.3	441	440.7	15.4	501	500.7	17.5	561	560.7	19.6
22	321.8	11.2	82	381.8	13.3	42	441.7	15.4	02	501.7	17.5	62	561.7	19.6
23	322.8	11.3	83	382.8	13.4	43	442.7	15.5	03	502.7	17.6	63	562.7	19.6
24	323.8	11.3	84	383.8	13.4	44	443.7	15.5	04	503.7	17.6	64	563.7	19.7
25	324.8	11.3	85	384.8	13.4	45	444.7	15.5	05	504.7	17.6	65	564.7	19.7
26	325.8	11.4	86	385.8	13.5	46	445.7	15.6	06	505.7	17.7	66	565.7	19.8
27	326.8	11.4	87	386.8	13.5	47	446.7	15.6	07	506.7	17.7	67	566.7	19.8
28	327.8	11.4	88	387.8	13.5	48	447.7	15.6	08	507.7	17.7	68	567.7	19.8
29	328.8	11.5	89	388.8	13.6	49	448.7	15.7	09	508.7	17.8	69	568.7	19.9
30	329.8	11.5	90	389.8	13.6	50	449.7	15.7	10	509.7	17.8	70	569.7	19.9
331	330.8	11.6	391	390.8	13.6	451	450.7	15.7	511	510.7	17.8	571	570.7	19.9
32	331.8	11.6	92	391.8	13.7	52	451.7	15.8	12	511.7	17.9	72	571.7	20.0
33	332.8	11.6	93	392.8	13.7	53	452.7	15.8	13	512.7	17.9	73	572.7	20.0
34	333.8	11.7	94	393.8	13.8	54	453.7	15.8	14	513.7	17.9	74	573.7	20.0
35	334.8	11.7	95	394.8	13.8	55	454.7	15.9	15	514.7	18.0	75	574.6	20.1
36	335.8	11.7	96	395.8	13.8	56	455.7	15.9	16	515.7	18.0	76	575.6	20.1
37	336.8	11.8	97	396.8	13.9	57	456.7	15.9	17	516.7	18.0	77	576.6	20.1
38	337.8	11.8	98	397.8	13.9	58	457.7	16.0	18	517.7	18.1	78	577.6	20.2
39	338.8	11.8	99	398.8	13.9	59	458.7	16.0	19	518.7	18.1	79	578.6	20.2
40	339.8	11.9	400	399.8	14.0	60	459.7	16.1	20	519.7	18.1	80	579.6	20.2
341	340.8	11.9	401	400.8	14.0	461	460.7	16.1	521	520.7	18.2	581	580.6	20.3
42	341.8	11.9	02	401.8	14.0	62	461.7	16.1	22	521.7	18.2	82	581.6	20.3
43	342.8	12.0	03	402.8	14.1	63	462.7	16.2	23	522.7	18.3	83	582.6	20.3
44	343.8	12.0	04	403.8	14.1	64	463.7	16.2	24	523.7	18.3	84	583.6	20.4
45	344.8	12.0	05	404.8	14.1	65	464.7	16.2	25	524.7	18.3	85	584.6	20.4
46	345.8	12.1	06	405.8	14.2	66	465.7	16.3	26	525.7	18.4	86	585.6	20.5
47	346.8	12.1	07	406.8	14.2	67	466.7	16.3	27	526.7	18.4	87	586.6	20.5
48	347.8	12.1	08	407.8	14.2	68	467.7	16.3	28	527.7	18.4	88	587.6	20.5
49	348.8	12.2	09	408.8	14.3	69	468.7	16.4	29	528.7	18.5	89	588.6	20.6
50	349.8	12.2	10	409.8	14.3	70	469.7	16.4	30	529.7	18.5	90	589.6	20.6
351	350.8	12.2	411	410.7	14.3	471	470.7	16.4	531	530.7	18.5	591	590.6	20.6
52	351.8	12.3	12	411.7	14.4	72	471.7	16.5	32	531.7	18.6	92	591.6	20.7
53	352.8	12.3	13	412.7	14.4	73	472.7	16.5	33	532.7	18.6	93	592.6	20.7
54	353.8	12.4	14	413.7	14.4	74	473.7	16.5	34	533.7	18.6	94	593.6	20.7
55	354.8	12.4	15	414.7	14.5	75	474.7	16.6	35	534.7	18.7	95	594.6	20.8
56	355.8	12.4	16	415.7	14.5	76	475.7	16.6	36	535.7	18.7	96	595.6	20.8
57	356.8	12.5	17	416.7	14.6	77	476.7	16.6	37	536.7	18.7	97	596.6	20.8
58	357.8	12.5	18	417.7	14.6	78	477.7	16.7	38	537.7	18.8	98	597.6	20.9
59	358.8	12.5	19	418.7	14.6	79	478.7	16.7	39	538.7	18.8	99	598.6	20.9
60	359.8	12.6	20	419.7	14.7	80	479.7	16.8	40	539.7	18.8	600	599.6	20.9
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

88°

272° | 088°
268° | 092°

TABLE 4

357° | 003°
183° | 177°

Traverse **3°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.1	61	60.9	3.2	121	120.8	6.3	181	180.8	9.5	241	240.7	12.6
2	2.0	0.1	62	61.9	3.2	22	121.8	6.4	82	181.8	9.5	42	241.7	12.7
3	3.0	0.2	63	62.9	3.3	23	122.8	6.4	83	182.7	9.6	43	242.7	12.7
4	4.0	0.2	64	63.9	3.3	24	123.8	6.5	84	183.7	9.6	44	243.7	12.8
5	5.0	0.3	65	64.9	3.4	25	124.8	6.5	85	184.7	9.7	45	244.7	12.8
6	6.0	0.3	66	65.9	3.5	26	125.8	6.6	86	185.7	9.7	46	245.7	12.9
7	7.0	0.4	67	66.9	3.5	27	126.8	6.6	87	186.7	9.8	47	246.7	12.9
8	8.0	0.4	68	67.9	3.6	28	127.8	6.7	88	187.7	9.8	48	247.7	13.0
9	9.0	0.5	69	68.9	3.6	29	128.8	6.8	89	188.7	9.9	49	248.7	13.0
10	10.0	0.5	70	69.9	3.7	30	129.8	6.8	90	189.7	9.9	50	249.7	13.1
11	11.0	0.6	71	70.9	3.7	131	130.8	6.9	191	190.7	10.0	251	250.7	13.1
12	12.0	0.6	72	71.9	3.8	32	131.8	6.9	92	191.7	10.0	52	251.7	13.2
13	13.0	0.7	73	72.9	3.8	33	132.8	7.0	93	192.7	10.1	53	252.7	13.2
14	14.0	0.7	74	73.9	3.9	34	133.8	7.0	94	193.7	10.2	54	253.7	13.3
15	15.0	0.8	75	74.9	3.9	35	134.8	7.1	95	194.7	10.2	55	254.7	13.3
16	16.0	0.8	76	75.9	4.0	36	135.8	7.1	96	195.7	10.3	56	255.6	13.4
17	17.0	0.9	77	76.9	4.0	37	136.8	7.2	97	196.7	10.3	57	256.6	13.5
18	18.0	0.9	78	77.9	4.1	38	137.8	7.2	98	197.7	10.4	58	257.6	13.5
19	19.0	1.0	79	78.9	4.1	39	138.8	7.3	99	198.7	10.4	59	258.6	13.6
20	20.0	1.0	80	79.9	4.2	40	139.8	7.3	200	199.7	10.5	60	259.6	13.6
21	21.0	1.1	81	80.9	4.2	141	140.8	7.4	201	200.7	10.5	261	260.6	13.7
22	22.0	1.2	82	81.9	4.3	42	141.8	7.4	02	201.7	10.6	62	261.6	13.7
23	23.0	1.2	83	82.9	4.3	43	142.8	7.5	03	202.7	10.6	63	262.6	13.8
24	24.0	1.3	84	83.9	4.4	44	143.8	7.5	04	203.7	10.7	64	263.6	13.8
25	25.0	1.3	85	84.9	4.4	45	144.8	7.6	05	204.7	10.7	65	264.6	13.9
26	26.0	1.4	86	85.9	4.5	46	145.8	7.6	06	205.7	10.8	66	265.6	13.9
27	27.0	1.4	87	86.9	4.6	47	146.8	7.7	07	206.7	10.8	67	266.6	14.0
28	28.0	1.5	88	87.9	4.6	48	147.8	7.7	08	207.7	10.9	68	267.6	14.0
29	29.0	1.5	89	88.9	4.7	49	148.8	7.8	09	208.7	10.9	69	268.6	14.1
30	30.0	1.6	90	89.9	4.7	50	149.8	7.9	10	209.7	11.0	70	269.6	14.1
31	31.0	1.6	91	90.9	4.8	151	150.8	7.9	211	210.7	11.0	271	270.6	14.2
32	32.0	1.7	92	91.9	4.8	52	151.8	8.0	12	211.7	11.1	72	271.6	14.2
33	33.0	1.7	93	92.9	4.9	53	152.8	8.0	13	212.7	11.1	73	272.6	14.3
34	34.0	1.8	94	93.9	4.9	54	153.8	8.1	14	213.7	11.2	74	273.6	14.3
35	35.0	1.8	95	94.9	5.0	55	154.8	8.1	15	214.7	11.3	75	274.6	14.4
36	36.0	1.9	96	95.9	5.0	56	155.8	8.2	16	215.7	11.3	76	275.6	14.4
37	36.9	1.9	97	96.9	5.1	57	156.8	8.2	17	216.7	11.4	77	276.6	14.5
38	37.9	2.0	98	97.9	5.1	58	157.8	8.3	18	217.7	11.4	78	277.6	14.5
39	38.9	2.0	99	98.9	5.2	59	158.8	8.3	19	218.7	11.5	79	278.6	14.6
40	39.9	2.1	100	99.9	5.2	60	159.8	8.4	20	219.7	11.5	80	279.6	14.7
41	40.9	2.1	101	100.9	5.3	161	160.8	8.4	221	220.7	11.6	281	280.6	14.7
42	41.9	2.2	02	101.9	5.3	62	161.8	8.5	22	221.7	11.6	82	281.6	14.8
43	42.9	2.3	03	102.9	5.4	63	162.8	8.5	23	222.7	11.7	83	282.6	14.8
44	43.9	2.3	04	103.9	5.4	64	163.8	8.6	24	223.7	11.7	84	283.6	14.9
45	44.9	2.4	05	104.9	5.5	65	164.8	8.6	25	224.7	11.8	85	284.6	14.9
46	45.9	2.4	06	105.9	5.5	66	165.8	8.7	26	225.7	11.8	86	285.6	15.0
47	46.9	2.5	07	106.9	5.6	67	166.8	8.7	27	226.7	11.9	87	286.6	15.0
48	47.9	2.5	08	107.9	5.7	68	167.8	8.8	28	227.7	11.9	88	287.6	15.1
49	48.9	2.6	09	108.9	5.7	69	168.8	8.8	29	228.7	12.0	89	288.6	15.1
50	49.9	2.6	10	109.8	5.8	70	169.8	8.9	30	229.7	12.0	90	289.6	15.2
51	50.9	2.7	111	110.8	5.8	171	170.8	8.9	231	230.7	12.1	291	290.6	15.2
52	51.9	2.7	12	111.8	5.9	72	171.8	9.0	32	231.7	12.1	92	291.6	15.3
53	52.9	2.8	13	112.8	5.9	73	172.8	9.1	33	232.7	12.2	93	292.6	15.3
54	53.9	2.8	14	113.8	6.0	74	173.8	9.1	34	233.7	12.2	94	293.6	15.4
55	54.9	2.9	15	114.8	6.0	75	174.8	9.2	35	234.7	12.3	95	294.6	15.4
56	55.9	2.9	16	115.8	6.1	76	175.8	9.2	36	235.7	12.4	96	295.6	15.5
57	56.9	3.0	17	116.8	6.1	77	176.8	9.3	37	236.7	12.4	97	296.6	15.5
58	57.9	3.0	18	117.8	6.2	78	177.8	9.3	38	237.7	12.5	98	297.6	15.6
59	58.9	3.1	19	118.8	6.2	79	178.8	9.4	39	238.7	12.5	99	298.6	15.6
60	59.9	3.1	20	119.8	6.3	80	179.8	9.4	40	239.7	12.6	300	299.6	15.7
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

273° | 087°
267° | 093°

87°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

357° | 003°
183° | 177°

Traverse **3°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	300.6	15.8	361	360.5	18.9	421	420.4	22.0	481	480.3	25.2	541	540.3	28.3
02	301.6	15.8	62	361.5	18.9	22	421.4	22.1	82	481.3	25.2	42	541.3	28.4
03	302.6	15.9	63	362.5	19.0	23	422.4	22.1	83	482.3	25.3	43	542.3	28.4
04	303.6	15.9	64	363.5	19.1	24	423.4	22.2	84	483.3	25.3	44	543.3	28.5
05	304.6	16.0	65	364.5	19.1	25	424.4	22.2	85	484.3	25.4	45	544.3	28.5
06	305.6	16.0	66	365.5	19.2	26	425.4	22.3	86	485.3	25.4	46	545.3	28.6
07	306.6	16.1	67	366.5	19.2	27	426.4	22.3	87	486.3	25.5	47	546.3	28.6
08	307.6	16.1	68	367.5	19.3	28	427.4	22.4	88	487.3	25.5	48	547.2	28.7
09	308.6	16.2	69	368.5	19.3	29	428.4	22.5	89	488.3	25.6	49	548.2	28.7
10	309.6	16.2	70	369.5	19.4	30	429.4	22.5	90	489.3	25.6	50	549.2	28.8
311	310.6	16.3	371	370.5	19.4	431	430.4	22.6	491	490.3	25.7	551	550.2	28.8
12	311.6	16.3	72	371.5	19.5	32	431.4	22.6	92	491.3	25.7	52	551.2	28.9
13	312.6	16.4	73	372.5	19.5	33	432.4	22.7	93	492.3	25.8	53	552.2	28.9
14	313.6	16.4	74	373.5	19.6	34	433.4	22.7	94	493.3	25.9	54	553.2	29.0
15	314.6	16.5	75	374.5	19.6	35	434.4	22.8	95	494.3	25.9	55	554.2	29.0
16	315.6	16.5	76	375.5	19.7	36	435.4	22.8	96	495.3	26.0	56	555.2	29.1
17	316.6	16.6	77	376.5	19.7	37	436.4	22.9	97	496.3	26.0	57	556.2	29.2
18	317.6	16.6	78	377.5	19.8	38	437.4	22.9	98	497.3	26.1	58	557.2	29.2
19	318.6	16.7	79	378.5	19.8	39	438.4	23.0	99	498.3	26.1	59	558.2	29.3
20	319.6	16.7	80	379.5	19.9	40	439.4	23.0	500	499.3	26.2	60	559.2	29.3
321	320.6	16.8	381	380.5	19.9	441	440.4	23.1	501	500.3	26.2	561	560.2	29.4
22	321.6	16.9	82	381.5	20.0	42	441.4	23.1	02	501.3	26.3	62	561.2	29.4
23	322.6	16.9	83	382.5	20.0	43	442.4	23.2	03	502.3	26.3	63	562.2	29.5
24	323.6	17.0	84	383.5	20.1	44	443.4	23.2	04	503.3	26.4	64	563.2	29.5
25	324.6	17.0	85	384.5	20.1	45	444.4	23.3	05	504.3	26.4	65	564.2	29.6
26	325.6	17.1	86	385.5	20.2	46	445.4	23.3	06	505.3	26.5	66	565.2	29.6
27	326.6	17.1	87	386.5	20.3	47	446.4	23.4	07	506.3	26.5	67	566.2	29.7
28	327.6	17.2	88	387.5	20.3	48	447.4	23.4	08	507.3	26.6	68	567.2	29.7
29	328.5	17.2	89	388.5	20.4	49	448.4	23.5	09	508.3	26.6	69	568.2	29.8
30	329.5	17.3	90	389.5	20.4	50	449.4	23.6	10	509.3	26.7	70	569.2	29.8
331	330.5	17.3	391	390.5	20.5	451	450.4	23.6	511	510.3	26.7	571	570.2	29.9
32	331.5	17.4	92	391.5	20.5	52	451.4	23.7	12	511.3	26.8	72	571.2	29.9
33	332.5	17.4	93	392.5	20.6	53	452.4	23.7	13	512.3	26.8	73	572.2	30.0
34	333.5	17.5	94	393.5	20.6	54	453.4	23.8	14	513.3	26.9	74	573.2	30.0
35	334.5	17.5	95	394.5	20.7	55	454.4	23.8	15	514.3	27.0	75	574.2	30.1
36	335.5	17.6	96	395.5	20.7	56	455.4	23.9	16	515.3	27.0	76	575.2	30.1
37	336.5	17.6	97	396.5	20.8	57	456.4	23.9	17	516.3	27.1	77	576.2	30.2
38	337.5	17.7	98	397.5	20.8	58	457.4	24.0	18	517.3	27.1	78	577.2	30.3
39	338.5	17.7	99	398.5	20.9	59	458.4	24.0	19	518.3	27.2	79	578.2	30.3
40	339.5	17.8	400	399.5	20.9	60	459.4	24.1	20	519.3	27.2	80	579.2	30.4
341	340.5	17.8	401	400.5	21.0	461	460.4	24.1	521	520.3	27.3	581	580.2	30.4
42	341.5	17.9	02	401.4	21.0	62	461.4	24.2	22	521.3	27.3	82	581.2	30.5
43	342.5	18.0	03	402.4	21.1	63	462.4	24.2	23	522.3	27.4	83	582.2	30.5
44	343.5	18.0	04	403.4	21.1	64	463.4	24.3	24	523.3	27.4	84	583.2	30.6
45	344.5	18.1	05	404.4	21.2	65	464.4	24.3	25	524.3	27.5	85	584.2	30.6
46	345.5	18.1	06	405.4	21.2	66	465.4	24.4	26	525.3	27.5	86	585.2	30.7
47	346.5	18.2	07	406.4	21.3	67	466.4	24.4	27	526.3	27.6	87	586.2	30.7
48	347.5	18.2	08	407.4	21.4	68	467.4	24.5	28	527.3	27.6	88	587.2	30.8
49	348.5	18.3	09	408.4	21.4	69	468.4	24.5	29	528.3	27.7	89	588.2	30.8
50	349.5	18.3	10	409.4	21.5	70	469.4	24.6	30	529.3	27.7	90	589.2	30.9
351	350.5	18.4	411	410.4	21.5	471	470.4	24.7	531	530.3	27.8	591	590.2	30.9
52	351.5	18.4	12	411.4	21.6	72	471.4	24.7	32	531.3	27.8	92	591.2	31.0
53	352.5	18.5	13	412.4	21.6	73	472.4	24.8	33	532.3	27.9	93	592.2	31.0
54	353.5	18.5	14	413.4	21.7	74	473.4	24.8	34	533.3	27.9	94	593.2	31.1
55	354.5	18.6	15	414.4	21.7	75	474.3	24.9	35	534.3	28.0	95	594.2	31.1
56	355.5	18.6	16	415.4	21.8	76	475.3	24.9	36	535.3	28.1	96	595.2	31.2
57	356.5	18.7	17	416.4	21.8	77	476.3	25.0	37	536.3	28.1	97	596.2	31.2
58	357.5	18.7	18	417.4	21.9	78	477.3	25.0	38	537.3	28.2	98	597.2	31.3
59	358.5	18.8	19	418.4	21.9	79	478.3	25.1	39	538.3	28.2	99	598.2	31.3
60	359.5	18.8	20	419.4	22.0	80	479.3	25.1	40	539.3	28.3	600	599.2	31.4
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

273° | 087°
267° | 093°

87°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

4° Traverse Table

356° / 184°	004° / 176°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.1	61	60.9	4.3	121	120.7	8.4	181	180.6	12.6	241	240.4	16.8
2	2.0	0.1	62	61.8	4.3	22	121.7	8.5	82	181.6	12.7	42	241.4	16.9
3	3.0	0.2	63	62.8	4.4	23	122.7	8.6	83	182.6	12.8	43	242.4	17.0
4	4.0	0.3	64	63.8	4.5	24	123.7	8.6	84	183.6	12.8	44	243.4	17.0
5	5.0	0.3	65	64.8	4.5	25	124.7	8.7	85	184.5	12.9	45	244.4	17.1
6	6.0	0.4	66	65.8	4.6	26	125.7	8.8	86	185.5	13.0	46	245.4	17.2
7	7.0	0.5	67	66.8	4.7	27	126.7	8.9	87	186.5	13.0	47	246.4	17.2
8	8.0	0.6	68	67.8	4.7	28	127.7	8.9	88	187.5	13.1	48	247.4	17.3
9	9.0	0.6	69	68.8	4.8	29	128.7	9.0	89	188.5	13.2	49	248.4	17.4
10	10.0	0.7	70	69.8	4.9	30	129.7	9.1	90	189.5	13.3	50	249.4	17.4
11	11.0	0.8	71	70.8	5.0	131	130.7	9.1	191	190.5	13.3	251	250.4	17.5
12	12.0	0.8	72	71.8	5.0	32	131.7	9.2	92	191.5	13.4	52	251.4	17.6
13	13.0	0.9	73	72.8	5.1	33	132.7	9.3	93	192.5	13.5	53	252.4	17.6
14	14.0	1.0	74	73.8	5.2	34	133.7	9.3	94	193.5	13.5	54	253.4	17.7
15	15.0	1.0	75	74.8	5.2	35	134.7	9.4	95	194.5	13.6	55	254.4	17.8
16	16.0	1.1	76	75.8	5.3	36	135.7	9.5	96	195.5	13.7	56	255.4	17.9
17	17.0	1.2	77	76.8	5.4	37	136.7	9.6	97	196.5	13.7	57	256.4	17.9
18	18.0	1.3	78	77.8	5.4	38	137.7	9.6	98	197.5	13.8	58	257.4	18.0
19	19.0	1.3	79	78.8	5.5	39	138.7	9.7	99	198.5	13.9	59	258.4	18.1
20	20.0	1.4	80	79.8	5.6	40	139.7	9.8	200	199.5	14.0	60	259.4	18.1
21	20.9	1.5	81	80.8	5.7	141	140.7	9.8	201	200.5	14.0	261	260.4	18.2
22	21.9	1.5	82	81.8	5.7	42	141.7	9.9	02	201.5	14.1	62	261.4	18.3
23	22.9	1.6	83	82.8	5.8	43	142.7	10.0	03	202.5	14.2	63	262.4	18.3
24	23.9	1.7	84	83.8	5.9	44	143.6	10.0	04	203.5	14.2	64	263.4	18.4
25	24.9	1.7	85	84.8	5.9	45	144.6	10.1	05	204.5	14.3	65	264.4	18.5
26	25.9	1.8	86	85.8	6.0	46	145.6	10.2	06	205.5	14.4	66	265.4	18.6
27	26.9	1.9	87	86.8	6.1	47	146.6	10.3	07	206.5	14.4	67	266.3	18.6
28	27.9	2.0	88	87.8	6.1	48	147.6	10.3	08	207.5	14.5	68	267.3	18.7
29	28.9	2.0	89	88.8	6.2	49	148.6	10.4	09	208.5	14.6	69	268.3	18.8
30	29.9	2.1	90	89.8	6.3	50	149.6	10.5	10	209.5	14.6	70	269.3	18.8
31	30.9	2.2	91	90.8	6.3	151	150.6	10.5	211	210.5	14.7	271	270.3	18.9
32	31.9	2.2	92	91.8	6.4	52	151.6	10.6	12	211.5	14.8	72	271.3	19.0
33	32.9	2.3	93	92.8	6.5	53	152.6	10.7	13	212.5	14.9	73	272.3	19.0
34	33.9	2.4	94	93.8	6.6	54	153.6	10.7	14	213.5	14.9	74	273.3	19.1
35	34.9	2.4	95	94.8	6.6	55	154.6	10.8	15	214.5	15.0	75	274.3	19.2
36	35.9	2.5	96	95.8	6.7	56	155.6	10.9	16	215.5	15.1	76	275.3	19.3
37	36.9	2.6	97	96.8	6.8	57	156.6	11.0	17	216.5	15.1	77	276.3	19.3
38	37.9	2.7	98	97.8	6.8	58	157.6	11.0	18	217.5	15.2	78	277.3	19.4
39	38.9	2.7	99	98.8	6.9	59	158.6	11.1	19	218.5	15.3	79	278.3	19.5
40	39.9	2.8	100	99.8	7.0	60	159.6	11.2	20	219.5	15.3	80	279.3	19.5
41	40.9	2.9	101	100.8	7.0	161	160.6	11.2	221	220.5	15.4	281	280.3	19.6
42	41.9	2.9	02	101.8	7.1	62	161.6	11.3	22	221.5	15.5	82	281.3	19.7
43	42.9	3.0	03	102.7	7.2	63	162.6	11.4	23	222.5	15.6	83	282.3	19.7
44	43.9	3.1	04	103.7	7.3	64	163.6	11.4	24	223.5	15.6	84	283.3	19.8
45	44.9	3.1	05	104.7	7.3	65	164.6	11.5	25	224.5	15.7	85	284.3	19.9
46	45.9	3.2	06	105.7	7.4	66	165.6	11.6	26	225.4	15.8	86	285.3	20.0
47	46.9	3.3	07	106.7	7.5	67	166.6	11.6	27	226.4	15.8	87	286.3	20.0
48	47.9	3.3	08	107.7	7.5	68	167.6	11.7	28	227.4	15.9	88	287.3	20.1
49	48.9	3.4	09	108.7	7.6	69	168.6	11.8	29	228.4	16.0	89	288.3	20.2
50	49.9	3.5	10	109.7	7.7	70	169.6	11.9	30	229.4	16.0	90	289.3	20.2
51	50.9	3.6	111	110.7	7.7	171	170.6	11.9	231	230.4	16.1	291	290.3	20.3
52	51.9	3.6	12	111.7	7.8	72	171.6	12.0	32	231.4	16.2	92	291.3	20.4
53	52.9	3.7	13	112.7	7.9	73	172.6	12.1	33	232.4	16.3	93	292.3	20.4
54	53.9	3.8	14	113.7	8.0	74	173.6	12.1	34	233.4	16.3	94	293.3	20.5
55	54.9	3.8	15	114.7	8.0	75	174.6	12.2	35	234.4	16.4	95	294.3	20.6
56	55.9	3.9	16	115.7	8.1	76	175.6	12.3	36	235.4	16.5	96	295.3	20.6
57	56.9	4.0	17	116.7	8.2	77	176.6	12.3	37	236.4	16.5	97	296.3	20.7
58	57.9	4.0	18	117.7	8.2	78	177.6	12.4	38	237.4	16.6	98	297.3	20.8
59	58.9	4.1	19	118.7	8.3	79	178.6	12.5	39	238.4	16.7	99	298.3	20.9
60	59.9	4.2	20	119.7	8.4	80	179.6	12.6	40	239.4	16.7	300	299.3	20.9
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

274° / 266°	086° / 094°

86°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

4° Traverse Table

356° / 184°	004° / 176°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	300.3	21.0	361	360.1	25.2	421	420.0	29.4	481	479.8	33.6	541	539.7	37.7
02	301.3	21.1	62	361.1	25.3	22	421.0	29.4	82	480.8	33.6	42	540.7	37.8
03	302.3	21.1	63	362.1	25.3	23	422.0	29.5	83	481.8	33.7	43	541.7	37.9
04	303.3	21.2	64	363.1	25.4	24	423.0	29.6	84	482.8	33.8	44	542.7	37.9
05	304.3	21.3	65	364.1	25.5	25	424.0	29.6	85	483.8	33.8	45	543.7	38.0
06	305.3	21.3	66	365.1	25.5	26	425.0	29.7	86	484.8	33.9	46	544.7	38.1
07	306.3	21.4	67	366.1	25.6	27	426.0	29.8	87	485.8	34.0	47	545.7	38.2
08	307.2	21.5	68	367.1	25.7	28	427.0	29.9	88	486.8	34.0	48	546.7	38.2
09	308.2	21.6	69	368.1	25.7	29	428.0	29.9	89	487.8	34.1	49	547.7	38.3
10	309.2	21.6	70	369.1	25.8	30	429.0	30.0	90	488.8	34.2	50	548.7	38.4
311	310.2	21.7	371	370.1	25.9	431	430.0	30.1	491	489.8	34.3	551	549.7	38.4
12	311.2	21.8	72	371.1	25.9	32	430.9	30.1	92	490.8	34.3	52	550.7	38.5
13	312.2	21.8	73	372.1	26.0	33	431.9	30.2	93	491.8	34.4	53	551.7	38.6
14	313.2	21.9	74	373.1	26.1	34	432.9	30.3	94	492.8	34.5	54	552.7	38.6
15	314.2	22.0	75	374.1	26.2	35	433.9	30.3	95	493.8	34.5	55	553.6	38.7
16	315.2	22.0	76	375.1	26.2	36	434.9	30.4	96	494.8	34.6	56	554.6	38.8
17	316.2	22.1	77	376.1	26.3	37	435.9	30.5	97	495.8	34.7	57	555.6	38.9
18	317.2	22.2	78	377.1	26.4	38	436.9	30.6	98	496.8	34.7	58	556.6	38.9
19	318.2	22.3	79	378.1	26.4	39	437.9	30.6	99	497.8	34.8	59	557.6	39.0
20	319.2	22.3	80	379.1	26.5	40	438.9	30.7	500	498.8	34.9	60	558.6	39.1
321	320.2	22.4	381	380.1	26.6	441	439.9	30.8	501	499.8	34.9	561	559.6	39.1
22	321.2	22.5	82	381.1	26.6	42	440.9	30.8	02	500.8	35.0	62	560.6	39.2
23	322.2	22.5	83	382.1	26.7	43	441.9	30.9	03	501.8	35.1	63	561.6	39.3
24	323.2	22.6	84	383.1	26.8	44	442.9	31.0	04	502.8	35.2	64	562.6	39.3
25	324.2	22.7	85	384.1	26.9	45	443.9	31.0	05	503.8	35.2	65	563.6	39.4
26	325.2	22.7	86	385.1	26.9	46	444.9	31.1	06	504.8	35.3	66	564.6	39.5
27	326.2	22.8	87	386.1	27.0	47	445.9	31.2	07	505.8	35.4	67	565.6	39.6
28	327.2	22.9	88	387.1	27.1	48	446.9	31.3	08	506.8	35.4	68	566.6	39.6
29	328.2	22.9	89	388.1	27.1	49	447.9	31.3	09	507.8	35.5	69	567.6	39.7
30	329.2	23.0	90	389.0	27.2	50	448.9	31.4	10	508.8	35.6	70	568.6	39.8
331	330.2	23.1	391	390.0	27.3	451	449.9	31.5	511	509.8	35.6	571	569.6	39.8
32	331.2	23.2	92	391.0	27.3	52	450.9	31.5	12	510.8	35.7	72	570.6	39.9
33	332.2	23.2	93	392.0	27.4	53	451.9	31.6	13	511.8	35.8	73	571.6	40.0
34	333.2	23.3	94	393.0	27.5	54	452.9	31.7	14	512.7	35.9	74	572.6	40.0
35	334.2	23.4	95	394.0	27.6	55	453.9	31.7	15	513.7	35.9	75	573.6	40.1
36	335.2	23.4	96	395.0	27.6	56	454.9	31.8	16	514.7	36.0	76	574.6	40.2
37	336.2	23.5	97	396.0	27.7	57	455.9	31.9	17	515.7	36.1	77	575.6	40.2
38	337.2	23.6	98	397.0	27.8	58	456.9	31.9	18	516.7	36.1	78	576.6	40.3
39	338.2	23.6	99	398.0	27.8	59	457.9	32.0	19	517.7	36.2	79	577.6	40.4
40	339.2	23.7	400	399.0	27.9	60	458.9	32.1	20	518.7	36.3	80	578.6	40.5
341	340.2	23.8	401	400.0	28.0	461	459.9	32.2	521	519.7	36.3	581	579.6	40.5
42	341.2	23.9	02	401.0	28.0	62	460.9	32.2	22	520.7	36.4	82	580.6	40.6
43	342.2	23.9	03	402.0	28.1	63	461.9	32.3	23	521.7	36.5	83	581.6	40.7
44	343.2	24.0	04	403.0	28.2	64	462.9	32.4	24	522.7	36.6	84	582.6	40.7
45	344.2	24.1	05	404.0	28.3	65	463.9	32.4	25	523.7	36.6	85	583.6	40.8
46	345.2	24.1	06	405.0	28.3	66	464.9	32.5	26	524.7	36.7	86	584.6	40.9
47	346.2	24.2	07	406.0	28.4	67	465.9	32.6	27	525.7	36.8	87	585.6	40.9
48	347.2	24.3	08	407.0	28.5	68	466.9	32.6	28	526.7	36.8	88	586.6	41.0
49	348.1	24.3	09	408.0	28.5	69	467.9	32.7	29	527.7	36.9	89	587.6	41.1
50	349.1	24.4	10	409.0	28.6	70	468.9	32.8	30	528.7	37.0	90	588.6	41.2
351	350.1	24.5	411	410.0	28.7	471	469.9	32.9	531	529.7	37.0	591	589.6	41.2
52	351.1	24.6	12	411.0	28.7	72	470.9	32.9	32	530.7	37.1	92	590.6	41.3
53	352.1	24.6	13	412.0	28.8	73	471.8	33.0	33	531.7	37.2	93	591.6	41.4
54	353.1	24.7	14	413.0	28.9	74	472.8	33.1	34	532.7	37.2	94	592.6	41.4
55	354.1	24.8	15	414.0	28.9	75	473.8	33.1	35	533.7	37.3	95	593.6	41.5
56	355.1	24.8	16	415.0	29.0	76	474.8	33.2	36	534.7	37.4	96	594.5	41.6
57	356.1	24.9	17	416.0	29.1	77	475.8	33.3	37	535.7	37.5	97	595.5	41.6
58	357.1	25.0	18	417.0	29.2	78	476.8	33.3	38	536.7	37.5	98	596.5	41.7
59	358.1	25.0	19	418.0	29.2	79	477.8	33.4	39	537.7	37.6	99	597.5	41.8
60	359.1	25.1	20	419.0	29.3	80	478.8	33.5	40	538.7	37.7	600	598.5	41.9
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

86°

274° / 266°	086° / 094°

TABLE 4

355° / 185° | 005° / 175°

Traverse **5°** Table

355° / 185° | 005° / 175°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.1	61	60.8	5.3	121	120.5	10.5	181	180.3	15.8	241	240.1	21.0
2	2.0	0.2	62	61.8	5.4	22	121.5	10.6	82	181.3	15.9	42	241.1	21.1
3	3.0	0.3	63	62.8	5.5	23	122.5	10.7	83	182.3	15.9	43	242.1	21.2
4	4.0	0.3	64	63.8	5.6	24	123.5	10.8	84	183.3	16.0	44	243.1	21.3
5	5.0	0.4	65	64.8	5.7	25	124.5	10.9	85	184.3	16.1	45	244.1	21.4
6	6.0	0.5	66	65.7	5.8	26	125.5	11.0	86	185.3	16.2	46	245.1	21.4
7	7.0	0.6	67	66.7	5.8	27	126.5	11.1	87	186.3	16.3	47	246.1	21.5
8	8.0	0.7	68	67.7	5.9	28	127.5	11.2	88	187.3	16.4	48	247.1	21.6
9	9.0	0.8	69	68.7	6.0	29	128.5	11.2	89	188.3	16.5	49	248.1	21.7
10	10.0	0.9	70	69.7	6.1	30	129.5	11.3	90	189.3	16.6	50	249.0	21.8
11	11.0	1.0	71	70.7	6.2	131	130.5	11.4	191	190.3	16.6	251	250.0	21.9
12	12.0	1.0	72	71.7	6.3	32	131.5	11.5	92	191.3	16.7	52	251.0	22.0
13	13.0	1.1	73	72.7	6.4	33	132.5	11.6	93	192.3	16.8	53	252.0	22.1
14	13.9	1.2	74	73.7	6.4	34	133.5	11.7	94	193.3	16.9	54	253.0	22.1
15	14.9	1.3	75	74.7	6.5	35	134.5	11.8	95	194.3	17.0	55	254.0	22.2
16	15.9	1.4	76	75.7	6.6	36	135.5	11.9	96	195.3	17.1	56	255.0	22.3
17	16.9	1.5	77	76.7	6.7	37	136.5	11.9	97	196.3	17.2	57	256.0	22.4
18	17.9	1.6	78	77.7	6.8	38	137.5	12.0	98	197.2	17.3	58	257.0	22.5
19	18.9	1.7	79	78.7	6.9	39	138.5	12.1	99	198.2	17.3	59	258.0	22.6
20	19.9	1.7	80	79.7	7.0	40	139.5	12.2	200	199.2	17.4	60	259.0	22.7
21	20.9	1.8	81	80.7	7.1	141	140.5	12.3	201	200.2	17.5	261	260.0	22.7
22	21.9	1.9	82	81.7	7.1	42	141.5	12.4	02	201.2	17.6	62	261.0	22.8
23	22.9	2.0	83	82.7	7.2	43	142.5	12.5	03	202.2	17.7	63	262.0	22.9
24	23.9	2.1	84	83.7	7.3	44	143.5	12.6	04	203.2	17.8	64	263.0	23.0
25	24.9	2.2	85	84.7	7.4	45	144.4	12.6	05	204.2	17.9	65	264.0	23.1
26	25.9	2.3	86	85.7	7.5	46	145.4	12.7	06	205.2	18.0	66	265.0	23.2
27	26.9	2.4	87	86.7	7.6	47	146.4	12.8	07	206.2	18.0	67	266.0	23.3
28	27.9	2.4	88	87.7	7.7	48	147.4	12.9	08	207.2	18.1	68	267.0	23.4
29	28.9	2.5	89	88.7	7.8	49	148.4	13.0	09	208.2	18.2	69	268.0	23.4
30	29.9	2.6	90	89.7	7.8	50	149.4	13.1	10	209.2	18.3	70	269.0	23.5
31	30.9	2.7	91	90.7	7.9	151	150.4	13.2	211	210.2	18.4	271	270.0	23.6
32	31.9	2.8	92	91.6	8.0	52	151.4	13.2	12	211.2	18.5	72	271.0	23.7
33	32.9	2.9	93	92.6	8.1	53	152.4	13.3	13	212.2	18.6	73	272.0	23.8
34	33.9	3.0	94	93.6	8.2	54	153.4	13.4	14	213.2	18.7	74	273.0	23.9
35	34.9	3.1	95	94.6	8.3	55	154.4	13.5	15	214.2	18.7	75	274.0	24.0
36	35.9	3.1	96	95.6	8.4	56	155.4	13.6	16	215.2	18.8	76	274.9	24.1
37	36.9	3.2	97	96.6	8.5	57	156.4	13.7	17	216.2	18.9	77	275.9	24.1
38	37.9	3.3	98	97.6	8.5	58	157.4	13.8	18	217.2	19.0	78	276.9	24.2
39	38.9	3.4	99	98.6	8.6	59	158.4	13.9	19	218.2	19.1	79	277.9	24.3
40	39.8	3.5	100	99.6	8.7	60	159.4	13.9	20	219.2	19.2	80	278.9	24.4
41	40.8	3.6	101	100.6	8.8	161	160.4	14.0	221	220.2	19.3	281	279.9	24.5
42	41.8	3.7	02	101.6	8.9	62	161.4	14.1	22	221.2	19.3	82	280.9	24.6
43	42.8	3.7	03	102.6	9.0	63	162.4	14.2	23	222.2	19.4	83	281.9	24.7
44	43.8	3.8	04	103.6	9.1	64	163.4	14.3	24	223.1	19.5	84	282.9	24.8
45	44.8	3.9	05	104.6	9.2	65	164.4	14.4	25	224.1	19.6	85	283.9	24.8
46	45.8	4.0	06	105.6	9.2	66	165.4	14.5	26	225.1	19.7	86	284.9	24.9
47	46.8	4.1	07	106.6	9.3	67	166.4	14.6	27	226.1	19.8	87	285.9	25.0
48	47.8	4.2	08	107.6	9.4	68	167.4	14.6	28	227.1	19.9	88	286.9	25.1
49	48.8	4.3	09	108.6	9.5	69	168.4	14.7	29	228.1	20.0	89	287.9	25.2
50	49.8	4.4	10	109.6	9.6	70	169.4	14.8	30	229.1	20.0	90	288.9	25.3
51	50.8	4.4	111	110.6	9.7	171	170.3	14.9	231	230.1	20.1	291	289.9	25.4
52	51.8	4.5	12	111.6	9.8	72	171.3	15.0	32	231.1	20.2	92	290.9	25.4
53	52.8	4.6	13	112.6	9.8	73	172.3	15.1	33	232.1	20.3	93	291.9	25.5
54	53.8	4.7	14	113.6	9.9	74	173.3	15.2	34	233.1	20.4	94	292.9	25.6
55	54.8	4.8	15	114.6	10.0	75	174.3	15.3	35	234.1	20.5	95	293.9	25.7
56	55.8	4.9	16	115.6	10.1	76	175.3	15.3	36	235.1	20.6	96	294.9	25.8
57	56.8	5.0	17	116.6	10.2	77	176.3	15.4	37	236.1	20.7	97	295.9	25.9
58	57.8	5.1	18	117.6	10.3	78	177.3	15.5	38	237.1	20.7	98	296.9	26.0
59	58.8	5.1	19	118.5	10.4	79	178.3	15.6	39	238.1	20.8	99	297.9	26.1
60	59.8	5.2	20	119.5	10.5	80	179.3	15.7	40	239.1	20.9	300	298.9	26.1
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

275° / 265° | 085° / 095°

85°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

355° / 185° | 005° / 175°

Traverse **5°** Table

355° / 185° | 005° / 175°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	299.9	26.2	361	359.6	31.5	421	419.4	36.7	481	479.2	41.9	541	538.9	47.2
02	300.9	26.3	62	360.6	31.6	22	420.4	36.8	82	480.2	42.0	42	539.9	47.2
03	301.8	26.4	63	361.6	31.6	23	421.4	36.9	83	481.2	42.1	43	540.9	47.3
04	302.8	26.5	64	362.6	31.7	24	422.4	37.0	84	482.2	42.2	44	541.9	47.4
05	303.8	26.6	65	363.6	31.8	25	423.4	37.0	85	483.2	42.3	45	542.9	47.5
06	304.8	26.7	66	364.6	31.9	26	424.4	37.1	86	484.2	42.4	46	543.9	47.6
07	305.8	26.8	67	365.6	32.0	27	425.4	37.2	87	485.1	42.4	47	544.9	47.7
08	306.8	26.8	68	366.6	32.1	28	426.4	37.3	88	486.1	42.5	48	545.9	47.8
09	307.8	26.9	69	367.6	32.2	29	427.4	37.4	89	487.1	42.6	49	546.9	47.8
10	308.8	27.0	70	368.6	32.2	30	428.4	37.5	90	488.1	42.7	50	547.9	47.9
311	309.8	27.1	371	369.6	32.3	431	429.4	37.6	491	489.1	42.8	551	548.9	48.0
12	310.8	27.2	72	370.6	32.4	32	430.4	37.7	92	490.1	42.9	52	549.9	48.1
13	311.8	27.3	73	371.6	32.5	33	431.4	37.7	93	491.1	43.0	53	550.9	48.2
14	312.8	27.4	74	372.6	32.6	34	432.3	37.8	94	492.1	43.1	54	551.9	48.3
15	313.8	27.5	75	373.6	32.7	35	433.3	37.9	95	493.1	43.1	55	552.9	48.4
16	314.8	27.5	76	374.6	32.8	36	434.3	38.0	96	494.1	43.2	56	553.9	48.5
17	315.8	27.6	77	375.6	32.9	37	435.3	38.1	97	495.1	43.3	57	554.9	48.5
18	316.8	27.7	78	376.6	32.9	38	436.3	38.2	98	496.1	43.4	58	555.9	48.6
19	317.8	27.8	79	377.6	33.0	39	437.3	38.3	99	497.1	43.5	59	556.9	48.7
20	318.8	27.9	80	378.6	33.1	40	438.3	38.3	500	498.1	43.6	60	557.9	48.8
321	319.8	28.0	381	379.6	33.2	441	439.3	38.4	501	499.1	43.7	561	558.9	48.9
22	320.8	28.1	82	380.5	33.3	42	440.3	38.5	02	500.1	43.8	62	559.9	49.0
23	321.8	28.2	83	381.5	33.4	43	441.3	38.6	03	501.1	43.8	63	560.9	49.1
24	322.8	28.2	84	382.5	33.5	44	442.3	38.7	04	502.1	43.9	64	561.9	49.2
25	323.8	28.3	85	383.5	33.6	45	443.3	38.8	05	503.1	44.0	65	562.9	49.2
26	324.8	28.4	86	384.5	33.6	46	444.3	38.9	06	504.1	44.1	66	563.8	49.3
27	325.8	28.5	87	385.5	33.7	47	445.3	39.0	07	505.1	44.2	67	564.8	49.4
28	326.8	28.6	88	386.5	33.8	48	446.3	39.0	08	506.1	44.3	68	565.8	49.5
29	327.7	28.7	89	387.5	33.9	49	447.3	39.1	09	507.1	44.4	69	566.8	49.6
30	328.7	28.8	90	388.5	34.0	50	448.3	39.2	10	508.1	44.4	70	567.8	49.7
331	329.7	28.8	391	389.5	34.1	451	449.3	39.3	511	509.1	44.5	571	568.8	49.8
32	330.7	28.9	92	390.5	34.2	52	450.3	39.4	12	510.1	44.6	72	569.8	49.9
33	331.7	29.0	93	391.5	34.3	53	451.3	39.5	13	511.0	44.7	73	570.8	49.9
34	332.7	29.1	94	392.5	34.3	54	452.3	39.6	14	512.0	44.8	74	571.8	50.0
35	333.7	29.2	95	393.5	34.4	55	453.3	39.7	15	513.0	44.9	75	572.8	50.1
36	334.7	29.3	96	394.5	34.5	56	454.3	39.7	16	514.0	45.0	76	573.8	50.2
37	335.7	29.4	97	395.5	34.6	57	455.3	39.8	17	515.0	45.1	77	574.8	50.3
38	336.7	29.5	98	396.5	34.7	58	456.3	39.9	18	516.0	45.1	78	575.8	50.4
39	337.7	29.5	99	397.5	34.8	59	457.3	40.0	19	517.0	45.2	79	576.8	50.5
40	338.7	29.6	400	398.5	34.9	60	458.2	40.1	20	518.0	45.3	80	577.8	50.6
341	339.7	29.7	401	399.5	34.9	461	459.2	40.2	521	519.0	45.4	581	578.8	50.6
42	340.7	29.8	02	400.5	35.0	62	460.2	40.3	22	520.0	45.5	82	579.8	50.7
43	341.7	29.9	03	401.5	35.1	63	461.2	40.4	23	521.0	45.6	83	580.8	50.8
44	342.7	30.0	04	402.5	35.2	64	462.2	40.4	24	522.0	45.7	84	581.8	50.9
45	343.7	30.1	05	403.5	35.3	65	463.2	40.5	25	523.0	45.8	85	582.8	51.0
46	344.7	30.2	06	404.5	35.4	66	464.2	40.6	26	524.0	45.8	86	583.8	51.1
47	345.7	30.2	07	405.5	35.5	67	465.2	40.7	27	525.0	45.9	87	584.8	51.2
48	346.7	30.3	08	406.4	35.6	68	466.2	40.8	28	526.0	46.0	88	585.8	51.2
49	347.7	30.4	09	407.4	35.6	69	467.2	40.9	29	527.0	46.1	89	586.8	51.3
50	348.7	30.5	10	408.4	35.7	70	468.2	41.0	30	528.0	46.2	90	587.8	51.4
351	349.7	30.6	411	409.4	35.8	471	469.2	41.1	531	529.0	46.3	591	588.8	51.5
52	350.7	30.7	12	410.4	35.9	72	470.2	41.1	32	530.0	46.4	92	589.7	51.6
53	351.7	30.8	13	411.4	36.0	73	471.2	41.2	33	531.0	46.5	93	590.7	51.7
54	352.7	30.9	14	412.4	36.1	74	472.2	41.3	34	532.0	46.5	94	591.7	51.8
55	353.6	30.9	15	413.4	36.2	75	473.2	41.4	35	533.0	46.6	95	592.7	51.9
56	354.6	31.0	16	414.4	36.3	76	474.2	41.5	36	534.0	46.7	96	593.7	51.9
57	355.6	31.1	17	415.4	36.3	77	475.2	41.6	37	535.0	46.8	97	594.7	52.0
58	356.6	31.2	18	416.4	36.4	78	476.2	41.7	38	536.0	46.9	98	595.7	52.1
59	357.6	31.3	19	417.4	36.5	79	477.2	41.7	39	536.9	47.0	99	596.7	52.2
60	358.6	31.4	20	418.4	36.6	80	478.2	41.8	40	537.9	47.1	600	597.7	52.3
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

85°

275° / 265° | 085° / 095°

TABLE 4

6° Traverse Table

354° / 186° | 006° / 174°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.1	61	60.7	6.4	121	120.3	12.6	181	180.0	18.9	241	239.7	25.2
2	2.0	0.2	62	61.7	6.5	22	121.3	12.8	82	181.0	19.0	42	240.7	25.3
3	3.0	0.3	63	62.7	6.6	23	122.3	12.9	83	182.0	19.1	43	241.7	25.4
4	4.0	0.4	64	63.6	6.7	24	123.3	13.0	84	183.0	19.2	44	242.7	25.5
5	5.0	0.5	65	64.6	6.8	25	124.3	13.1	85	184.0	19.3	45	243.7	25.6
6	6.0	0.6	66	65.6	6.9	26	125.3	13.2	86	185.0	19.4	46	244.7	25.7
7	7.0	0.7	67	66.6	7.0	27	126.3	13.3	87	186.0	19.5	47	245.6	25.8
8	8.0	0.8	68	67.6	7.1	28	127.3	13.4	88	187.0	19.7	48	246.6	25.9
9	9.0	0.9	69	68.6	7.2	29	128.3	13.5	89	188.0	19.8	49	247.6	26.0
10	9.9	1.0	70	69.6	7.3	30	129.3	13.6	90	189.0	19.9	50	248.6	26.1
11	10.9	1.1	71	70.6	7.4	131	130.3	13.7	191	190.0	20.0	251	249.6	26.2
12	11.9	1.3	72	71.6	7.5	32	131.3	13.8	92	190.9	20.1	52	250.6	26.3
13	12.9	1.4	73	72.6	7.6	33	132.3	13.9	93	191.9	20.2	53	251.6	26.4
14	13.9	1.5	74	73.6	7.7	34	133.3	14.0	94	192.9	20.3	54	252.6	26.6
15	14.9	1.6	75	74.6	7.8	35	134.3	14.1	95	193.9	20.4	55	253.6	26.7
16	15.9	1.7	76	75.6	7.9	36	135.3	14.2	96	194.9	20.5	56	254.6	26.8
17	16.9	1.8	77	76.6	8.0	37	136.2	14.3	97	195.9	20.6	57	255.6	26.9
18	17.9	1.9	78	77.6	8.2	38	137.2	14.4	98	196.9	20.7	58	256.6	27.0
19	18.9	2.0	79	78.6	8.3	39	138.2	14.5	99	197.9	20.8	59	257.6	27.1
20	19.9	2.1	80	79.6	8.4	40	139.2	14.6	200	198.9	20.9	60	258.6	27.2
21	20.9	2.2	81	80.6	8.5	141	140.2	14.7	201	199.9	21.0	261	259.6	27.3
22	21.9	2.3	82	81.6	8.6	42	141.2	14.8	02	200.9	21.1	62	260.6	27.4
23	22.9	2.4	83	82.5	8.7	43	142.2	14.9	03	201.9	21.2	63	261.6	27.5
24	23.9	2.5	84	83.5	8.8	44	143.2	15.1	04	202.9	21.3	64	262.6	27.6
25	24.9	2.6	85	84.5	8.9	45	144.2	15.2	05	203.9	21.4	65	263.5	27.7
26	25.9	2.7	86	85.5	9.0	46	145.2	15.3	06	204.9	21.5	66	264.5	27.8
27	26.9	2.8	87	86.5	9.1	47	146.2	15.4	07	205.9	21.6	67	265.5	27.9
28	27.8	2.9	88	87.5	9.2	48	147.2	15.5	08	206.9	21.7	68	266.5	28.0
29	28.8	3.0	89	88.5	9.3	49	148.2	15.6	09	207.9	21.8	69	267.5	28.1
30	29.8	3.1	90	89.5	9.4	50	149.2	15.7	10	208.8	22.0	70	268.5	28.2
31	30.8	3.2	91	90.5	9.5	151	150.2	15.8	211	209.8	22.1	271	269.5	28.3
32	31.8	3.3	92	91.5	9.6	52	151.2	15.9	12	210.8	22.2	72	270.5	28.4
33	32.8	3.4	93	92.5	9.7	53	152.2	16.0	13	211.8	22.3	73	271.5	28.5
34	33.8	3.6	94	93.5	9.8	54	153.2	16.1	14	212.8	22.4	74	272.5	28.6
35	34.8	3.7	95	94.5	9.9	55	154.2	16.2	15	213.8	22.5	75	273.5	28.7
36	35.8	3.8	96	95.5	10.0	56	155.1	16.3	16	214.8	22.6	76	274.5	28.8
37	36.8	3.9	97	96.5	10.1	57	156.1	16.4	17	215.8	22.7	77	275.5	29.0
38	37.8	4.0	98	97.5	10.2	58	157.1	16.5	18	216.8	22.8	78	276.5	29.1
39	38.8	4.1	99	98.5	10.3	59	158.1	16.6	19	217.8	22.9	79	277.5	29.2
40	39.8	4.2	100	99.5	10.5	60	159.1	16.7	20	218.8	23.0	80	278.5	29.3
41	40.8	4.3	101	100.4	10.6	161	160.1	16.8	221	219.8	23.1	281	279.5	29.4
42	41.8	4.4	02	101.4	10.7	62	161.1	16.9	22	220.8	23.2	82	280.5	29.5
43	42.8	4.5	03	102.4	10.8	63	162.1	17.0	23	221.8	23.3	83	281.4	29.6
44	43.8	4.6	04	103.4	10.9	64	163.1	17.1	24	222.8	23.4	84	282.4	29.7
45	44.8	4.7	05	104.4	11.0	65	164.1	17.2	25	223.8	23.5	85	283.4	29.8
46	45.7	4.8	06	105.4	11.1	66	165.1	17.4	26	224.8	23.6	86	284.4	29.9
47	46.7	4.9	07	106.4	11.2	67	166.1	17.5	27	225.8	23.7	87	285.4	30.0
48	47.7	5.0	08	107.4	11.3	68	167.1	17.6	28	226.8	23.8	88	286.4	30.1
49	48.7	5.1	09	108.4	11.4	69	168.1	17.7	29	227.7	23.9	89	287.4	30.2
50	49.7	5.2	10	109.4	11.5	70	169.1	17.8	30	228.7	24.0	90	288.4	30.3
51	50.7	5.3	111	110.4	11.6	171	170.1	17.9	231	229.7	24.1	291	289.4	30.4
52	51.7	5.4	12	111.4	11.7	72	171.1	18.0	32	230.7	24.3	92	290.4	30.5
53	52.7	5.5	13	112.4	11.8	73	172.1	18.1	33	231.7	24.4	93	291.4	30.6
54	53.7	5.6	14	113.4	11.9	74	173.0	18.2	34	232.7	24.5	94	292.4	30.7
55	54.7	5.7	15	114.4	12.0	75	174.0	18.3	35	233.7	24.6	95	293.4	30.8
56	55.7	5.9	16	115.4	12.1	76	175.0	18.4	36	234.7	24.7	96	294.4	30.9
57	56.7	6.0	17	116.4	12.2	77	176.0	18.5	37	235.7	24.8	97	295.4	31.0
58	57.7	6.1	18	117.4	12.3	78	177.0	18.6	38	236.7	24.9	98	296.4	31.1
59	58.7	6.2	19	118.3	12.4	79	178.0	18.7	39	237.7	25.0	99	297.4	31.3
60	59.7	6.3	20	119.3	12.5	80	179.0	18.8	40	238.7	25.1	300	298.4	31.4
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

276° / 264° | 084° / 096°

84°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

6° Traverse Table

354° / 186° | 006° / 174°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	299.4	31.5	361	359.0	37.7	421	418.7	44.0	481	478.4	50.3	541	538.0	56.5
02	300.3	31.6	62	360.0	37.8	22	419.7	44.1	82	479.4	50.4	42	539.0	56.7
03	301.3	31.7	63	361.0	37.9	23	420.7	44.2	83	480.4	50.5	43	540.0	56.8
04	302.3	31.8	64	362.0	38.0	24	421.7	44.3	84	481.3	50.6	44	541.0	56.9
05	303.3	31.9	65	363.0	38.2	25	422.7	44.4	85	482.3	50.7	45	542.0	57.0
06	304.3	32.0	66	364.0	38.3	26	423.7	44.5	86	483.3	50.8	46	543.0	57.1
07	305.3	32.1	67	365.0	38.4	27	424.7	44.6	87	484.3	50.9	47	544.0	57.2
08	306.3	32.2	68	366.0	38.5	28	425.7	44.7	88	485.3	51.0	48	545.0	57.3
09	307.3	32.3	69	367.0	38.6	29	426.6	44.8	89	486.3	51.1	49	546.0	57.4
10	308.3	32.4	70	368.0	38.7	30	427.6	44.9	90	487.3	51.2	50	547.0	57.5
311	309.3	32.5	371	369.0	38.8	431	428.6	45.1	491	488.3	51.3	551	548.0	57.6
12	310.3	32.6	72	370.0	38.9	32	429.6	45.2	92	489.3	51.4	52	549.0	57.7
13	311.3	32.7	73	371.0	39.0	33	430.6	45.3	93	490.3	51.5	53	550.0	57.8
14	312.3	32.8	74	372.0	39.1	34	431.6	45.4	94	491.3	51.6	54	551.0	57.9
15	313.3	32.9	75	372.9	39.2	35	432.6	45.5	95	492.3	51.7	55	552.0	58.0
16	314.3	33.0	76	373.9	39.3	36	433.6	45.6	96	493.3	51.8	56	553.0	58.1
17	315.3	33.1	77	374.9	39.4	37	434.6	45.7	97	494.3	52.0	57	553.9	58.2
18	316.3	33.2	78	375.9	39.5	38	435.6	45.8	98	495.3	52.1	58	554.9	58.3
19	317.3	33.3	79	376.9	39.6	39	436.6	45.9	99	496.3	52.2	59	555.9	58.4
20	318.2	33.4	80	377.9	39.7	40	437.6	46.0	500	497.3	52.3	60	556.9	58.5
321	319.2	33.6	381	378.9	39.8	441	438.6	46.1	501	498.3	52.4	561	557.9	58.6
22	320.2	33.7	82	379.9	39.9	42	439.6	46.2	02	499.2	52.5	62	558.9	58.7
23	321.2	33.8	83	380.9	40.0	43	440.6	46.3	03	500.2	52.6	63	559.9	58.8
24	322.2	33.9	84	381.9	40.1	44	441.6	46.4	04	501.2	52.7	64	560.9	59.0
25	323.2	34.0	85	382.9	40.2	45	442.6	46.5	05	502.2	52.8	65	561.9	59.1
26	324.2	34.1	86	383.9	40.3	46	443.6	46.6	06	503.2	52.9	66	562.9	59.2
27	325.2	34.2	87	384.9	40.5	47	444.6	46.7	07	504.2	53.0	67	563.9	59.3
28	326.2	34.3	88	385.9	40.6	48	445.5	46.8	08	505.2	53.1	68	564.9	59.4
29	327.2	34.4	89	386.9	40.7	49	446.5	46.9	09	506.2	53.2	69	565.9	59.5
30	328.2	34.5	90	387.9	40.8	50	447.5	47.0	10	507.2	53.3	70	566.9	59.6
331	329.2	34.6	391	388.9	40.9	451	448.5	47.1	511	508.2	53.4	571	567.9	59.7
32	330.2	34.7	92	389.9	41.0	52	449.5	47.2	12	509.2	53.5	72	568.9	59.8
33	331.2	34.8	93	390.8	41.1	53	450.5	47.4	13	510.2	53.6	73	569.9	59.9
34	332.2	34.9	94	391.8	41.2	54	451.5	47.5	14	511.2	53.7	74	570.9	60.0
35	333.2	35.0	95	392.8	41.3	55	452.5	47.6	15	512.2	53.8	75	571.9	60.1
36	334.2	35.1	96	393.8	41.4	56	453.5	47.7	16	513.2	53.9	76	572.8	60.2
37	335.2	35.2	97	394.8	41.5	57	454.5	47.8	17	514.2	54.0	77	573.8	60.3
38	336.1	35.3	98	395.8	41.6	58	455.5	47.9	18	515.2	54.1	78	574.8	60.4
39	337.1	35.4	99	396.8	41.7	59	456.5	48.0	19	516.2	54.3	79	575.8	60.5
40	338.1	35.5	400	397.8	41.8	60	457.5	48.1	20	517.2	54.4	80	576.8	60.6
341	339.1	35.6	401	398.8	41.9	461	458.5	48.2	521	518.1	54.5	581	577.8	60.7
42	340.1	35.7	02	399.8	42.0	62	459.5	48.3	22	519.1	54.6	82	578.8	60.8
43	341.1	35.9	03	400.8	42.1	63	460.5	48.4	23	520.1	54.7	83	579.8	60.9
44	342.1	36.0	04	401.8	42.2	64	461.5	48.5	24	521.1	54.8	84	580.8	61.0
45	343.1	36.1	05	402.8	42.3	65	462.5	48.6	25	522.1	54.9	85	581.8	61.1
46	344.1	36.2	06	403.8	42.4	66	463.4	48.7	26	523.1	55.0	86	582.8	61.3
47	345.1	36.3	07	404.8	42.5	67	464.4	48.8	27	524.1	55.1	87	583.8	61.4
48	346.1	36.4	08	405.8	42.6	68	465.4	48.9	28	525.1	55.2	88	584.8	61.5
49	347.1	36.5	09	406.8	42.8	69	466.4	49.0	29	526.1	55.3	89	585.8	61.6
50	348.1	36.6	10	407.8	42.9	70	467.4	49.1	30	527.1	55.4	90	586.8	61.7
351	349.1	36.7	411	408.7	43.0	471	468.4	49.2	531	528.1	55.5	591	587.8	61.8
52	350.1	36.8	12	409.7	43.1	72	469.4	49.3	32	529.1	55.6	92	588.8	61.9
53	351.1	36.9	13	410.7	43.2	73	470.4	49.4	33	530.1	55.7	93	589.8	62.0
54	352.1	37.0	14	411.7	43.3	74	471.4	49.5	34	531.1	55.8	94	590.7	62.1
55	353.1	37.1	15	412.7	43.4	75	472.4	49.7	35	532.1	55.9	95	591.7	62.2
56	354.0	37.2	16	413.7	43.5	76	473.4	49.8	36	533.1	56.0	96	592.7	62.3
57	355.0	37.3	17	414.7	43.6	77	474.4	49.9	37	534.1	56.1	97	593.7	62.4
58	356.0	37.4	18	415.7	43.7	78	475.4	50.0	38	535.1	56.2	98	594.7	62.5
59	357.0	37.5	19	416.7	43.8	79	476.4	50.1	39	536.0	56.3	99	595.7	62.6
60	358.0	37.6	20	417.7	43.9	80	477.4	50.2	40	537.0	56.4	600	596.7	62.7
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

276° / 264° | 084° / 096°

84°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

353° | 007°
187° | 173°

Traverse **7°** Table

353° | 007°
187° | 173°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.1	61	60.5	7.4	121	120.1	14.7	181	179.7	22.1	241	239.2	29.4
2	2.0	0.2	62	61.5	7.6	22	121.1	14.9	82	180.6	22.2	42	240.2	29.5
3	3.0	0.4	63	62.5	7.7	23	122.1	15.0	83	181.6	22.3	43	241.2	29.6
4	4.0	0.5	64	63.5	7.8	24	123.1	15.1	84	182.6	22.4	44	242.2	29.7
5	5.0	0.6	65	64.5	7.9	25	124.1	15.2	85	183.6	22.5	45	243.2	29.9
6	6.0	0.7	66	65.5	8.0	26	125.1	15.4	86	184.6	22.7	46	244.2	30.0
7	6.9	0.9	67	66.5	8.2	27	126.1	15.5	87	185.6	22.8	47	245.2	30.1
8	7.9	1.0	68	67.5	8.3	28	127.0	15.6	88	186.6	22.9	48	246.2	30.2
9	8.9	1.1	69	68.5	8.4	29	128.0	15.7	89	187.6	23.0	49	247.1	30.3
10	9.9	1.2	70	69.5	8.5	30	129.0	15.8	90	188.6	23.2	50	248.1	30.5
11	10.9	1.3	71	70.5	8.7	131	130.0	16.0	191	189.6	23.3	251	249.1	30.6
12	11.9	1.5	72	71.5	8.8	32	131.0	16.1	92	190.6	23.4	52	250.1	30.7
13	12.9	1.6	73	72.5	8.9	33	132.0	16.2	93	191.6	23.5	53	251.1	30.8
14	13.9	1.7	74	73.4	9.0	34	133.0	16.3	94	192.6	23.6	54	252.1	31.0
15	14.9	1.8	75	74.4	9.1	35	134.0	16.5	95	193.5	23.8	55	253.1	31.1
16	15.9	1.9	76	75.4	9.3	36	135.0	16.6	96	194.5	23.9	56	254.1	31.2
17	16.9	2.1	77	76.4	9.4	37	136.0	16.7	97	195.5	24.0	57	255.1	31.3
18	17.9	2.2	78	77.4	9.5	38	137.0	16.8	98	196.5	24.1	58	256.1	31.4
19	18.9	2.3	79	78.4	9.6	39	138.0	16.9	99	197.5	24.3	59	257.1	31.6
20	19.9	2.4	80	79.4	9.7	40	139.0	17.1	200	198.5	24.4	60	258.1	31.7
21	20.8	2.6	81	80.4	9.9	141	139.9	17.2	201	199.5	24.5	261	259.1	31.8
22	21.8	2.7	82	81.4	10.0	42	140.9	17.3	02	200.5	24.6	62	260.0	31.9
23	22.8	2.8	83	82.4	10.1	43	141.9	17.4	03	201.5	24.7	63	261.0	32.1
24	23.8	2.9	84	83.4	10.2	44	142.9	17.5	04	202.5	24.9	64	262.0	32.2
25	24.8	3.0	85	84.4	10.4	45	143.9	17.7	05	203.5	25.0	65	263.0	32.3
26	25.8	3.2	86	85.4	10.5	46	144.9	17.8	06	204.5	25.1	66	264.0	32.4
27	26.8	3.3	87	86.4	10.6	47	145.9	17.9	07	205.5	25.2	67	265.0	32.5
28	27.8	3.4	88	87.3	10.7	48	146.9	18.0	08	206.4	25.3	68	266.0	32.7
29	28.8	3.5	89	88.3	10.8	49	147.9	18.2	09	207.4	25.5	69	267.0	32.8
30	29.8	3.7	90	89.3	11.0	50	148.9	18.3	10	208.4	25.6	70	268.0	32.9
31	30.8	3.8	91	90.3	11.1	151	149.9	18.4	211	209.4	25.7	271	269.0	33.0
32	31.8	3.9	92	91.3	11.2	52	150.9	18.5	12	210.4	25.8	72	270.0	33.1
33	32.8	4.0	93	92.3	11.3	53	151.9	18.6	13	211.4	26.0	73	271.0	33.3
34	33.7	4.1	94	93.3	11.5	54	152.9	18.8	14	212.4	26.1	74	272.0	33.4
35	34.7	4.3	95	94.3	11.6	55	153.8	18.9	15	213.4	26.2	75	273.0	33.5
36	35.7	4.4	96	95.3	11.7	56	154.8	19.0	16	214.4	26.3	76	273.9	33.6
37	36.7	4.5	97	96.3	11.8	57	155.8	19.1	17	215.4	26.4	77	274.9	33.8
38	37.7	4.6	98	97.3	11.9	58	156.8	19.3	18	216.4	26.6	78	275.9	33.9
39	38.7	4.8	99	98.3	12.1	59	157.8	19.4	19	217.4	26.7	79	276.9	34.0
40	39.7	4.9	100	99.3	12.2	60	158.8	19.5	20	218.4	26.8	80	277.9	34.1
41	40.7	5.0	101	100.2	12.3	161	159.8	19.6	221	219.4	26.9	281	278.9	34.2
42	41.7	5.1	02	101.2	12.4	62	160.8	19.7	22	220.3	27.1	82	279.9	34.4
43	42.7	5.2	03	102.2	12.6	63	161.8	19.9	23	221.3	27.2	83	280.9	34.5
44	43.7	5.4	04	103.2	12.7	64	162.8	20.0	24	222.3	27.3	84	281.9	34.6
45	44.7	5.5	05	104.2	12.8	65	163.8	20.1	25	223.3	27.4	85	282.9	34.7
46	45.7	5.6	06	105.2	12.9	66	164.8	20.2	26	224.3	27.5	86	283.9	34.9
47	46.6	5.7	07	106.2	13.0	67	165.8	20.4	27	225.3	27.7	87	284.9	35.0
48	47.6	5.8	08	107.2	13.2	68	166.7	20.5	28	226.3	27.8	88	285.9	35.1
49	48.6	6.0	09	108.2	13.3	69	167.7	20.6	29	227.3	27.9	89	286.8	35.2
50	49.6	6.1	10	109.2	13.4	70	168.7	20.7	30	228.3	28.0	90	287.8	35.3
51	50.6	6.2	111	110.2	13.5	171	169.7	20.8	231	229.3	28.2	291	288.8	35.5
52	51.6	6.3	12	111.2	13.6	72	170.7	21.0	32	230.3	28.3	92	289.8	35.6
53	52.6	6.5	13	112.2	13.8	73	171.7	21.1	33	231.3	28.4	93	290.8	35.7
54	53.6	6.6	14	113.2	13.9	74	172.7	21.2	34	232.3	28.5	94	291.8	35.8
55	54.6	6.7	15	114.1	14.0	75	173.7	21.3	35	233.2	28.6	95	292.8	36.0
56	55.6	6.8	16	115.1	14.1	76	174.7	21.4	36	234.2	28.8	96	293.8	36.1
57	56.6	6.9	17	116.1	14.3	77	175.7	21.6	37	235.2	28.9	97	294.8	36.2
58	57.6	7.1	18	117.1	14.4	78	176.7	21.7	38	236.2	29.0	98	295.8	36.3
59	58.6	7.2	19	118.1	14.5	79	177.7	21.8	39	237.2	29.1	99	296.8	36.4
60	59.6	7.3	20	119.1	14.6	80	178.7	21.9	40	238.2	29.2	300	297.8	36.6
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

277° | 083°
263° | 097°

83°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

353° | 007°
187° | 173°

Traverse **7°** Table

353° | 007°
187° | 173°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	298.8	36.7	361	358.3	44.0	421	417.9	51.3	481	477.4	58.6	541	537.0	65.9
02	299.7	36.8	62	359.3	44.1	22	418.9	51.4	82	478.4	58.7	42	538.0	66.1
03	300.7	36.9	63	360.3	44.2	23	419.8	51.6	83	479.4	58.9	43	539.0	66.2
04	301.7	37.0	64	361.3	44.4	24	420.8	51.7	84	480.4	59.0	44	539.9	66.3
05	302.7	37.2	65	362.3	44.5	25	421.8	51.8	85	481.4	59.1	45	540.9	66.4
06	303.7	37.3	66	363.3	44.6	26	422.8	51.9	86	482.4	59.2	46	541.9	66.5
07	304.7	37.4	67	364.3	44.7	27	423.8	52.0	87	483.4	59.4	47	542.9	66.7
08	305.7	37.5	68	365.3	44.8	28	424.8	52.2	88	484.4	59.5	48	543.9	66.8
09	306.7	37.7	69	366.2	45.0	29	425.8	52.3	89	485.4	59.6	49	544.9	66.9
10	307.7	37.8	70	367.2	45.1	30	426.8	52.4	90	486.3	59.7	50	545.9	67.0
311	308.7	37.9	371	368.2	45.2	431	427.8	52.5	491	487.3	59.8	551	546.9	67.2
12	309.7	38.0	72	369.2	45.3	32	428.8	52.6	92	488.3	60.0	52	547.9	67.3
13	310.7	38.1	73	370.2	45.5	33	429.8	52.8	93	489.3	60.1	53	548.9	67.4
14	311.7	38.3	74	371.2	45.6	34	430.8	52.9	94	490.3	60.2	54	549.9	67.5
15	312.7	38.4	75	372.2	45.7	35	431.8	53.0	95	491.3	60.3	55	550.9	67.6
16	313.6	38.5	76	373.2	45.8	36	432.8	53.1	96	492.3	60.4	56	551.9	67.8
17	314.6	38.6	77	374.2	45.9	37	433.7	53.3	97	493.3	60.6	57	552.8	67.9
18	315.6	38.8	78	375.2	46.1	38	434.7	53.4	98	494.3	60.7	58	553.8	68.0
19	316.6	38.9	79	376.2	46.2	39	435.7	53.5	99	495.3	60.8	59	554.8	68.1
20	317.6	39.0	80	377.2	46.3	40	436.7	53.6	500	496.3	60.9	60	555.8	68.2
321	318.6	39.1	381	378.2	46.4	441	437.7	53.7	501	497.3	61.1	561	556.8	68.4
22	319.6	39.2	82	379.2	46.6	42	438.7	53.9	02	498.3	61.2	62	557.8	68.5
23	320.6	39.4	83	380.1	46.7	43	439.7	54.0	03	499.3	61.3	63	558.8	68.6
24	321.6	39.5	84	381.1	46.8	44	440.7	54.1	04	500.2	61.4	64	559.8	68.7
25	322.6	39.6	85	382.1	46.9	45	441.7	54.2	05	501.2	61.5	65	560.8	68.9
26	323.6	39.7	86	383.1	47.0	46	442.7	54.4	06	502.2	61.7	66	561.8	69.0
27	324.6	39.9	87	384.1	47.2	47	443.7	54.5	07	503.2	61.8	67	562.8	69.1
28	325.6	40.0	88	385.1	47.3	48	444.7	54.6	08	504.2	61.9	68	563.8	69.2
29	326.5	40.1	89	386.1	47.4	49	445.7	54.7	09	505.2	62.0	69	564.8	69.3
30	327.5	40.2	90	387.1	47.5	50	446.6	54.8	10	506.2	62.2	70	565.8	69.5
331	328.5	40.3	391	388.1	47.7	451	447.6	55.0	511	507.2	62.3	571	566.7	69.6
32	329.5	40.5	92	389.1	47.8	52	448.6	55.1	12	508.2	62.4	72	567.7	69.7
33	330.5	40.6	93	390.1	47.9	53	449.6	55.2	13	509.2	62.5	73	568.7	69.8
34	331.5	40.7	94	391.1	48.0	54	450.6	55.3	14	510.2	62.6	74	569.7	70.0
35	332.5	40.8	95	392.1	48.1	55	451.6	55.5	15	511.2	62.8	75	570.7	70.1
36	333.5	40.9	96	393.0	48.3	56	452.6	55.6	16	512.2	62.9	76	571.7	70.2
37	334.5	41.1	97	394.0	48.4	57	453.6	55.7	17	513.1	63.0	77	572.7	70.3
38	335.5	41.2	98	395.0	48.5	58	454.6	55.8	18	514.1	63.1	78	573.7	70.4
39	336.5	41.3	99	396.0	48.6	59	455.6	55.9	19	515.1	63.3	79	574.7	70.6
40	337.5	41.4	400	397.0	48.7	60	456.6	56.1	20	516.1	63.4	80	575.7	70.7
341	338.5	41.6	401	398.0	48.9	461	457.6	56.2	521	517.1	63.5	581	576.7	70.8
42	339.5	41.7	02	399.0	49.0	62	458.6	56.3	22	518.1	63.6	82	577.7	70.9
43	340.4	41.8	03	400.0	49.1	63	459.5	56.4	23	519.1	63.7	83	578.7	71.0
44	341.4	41.9	04	401.0	49.2	64	460.5	56.5	24	520.1	63.9	84	579.6	71.2
45	342.4	42.0	05	402.0	49.4	65	461.5	56.7	25	521.1	64.0	85	580.6	71.3
46	343.4	42.2	06	403.0	49.5	66	462.5	56.8	26	522.1	64.1	86	581.6	71.4
47	344.4	42.3	07	404.0	49.6	67	463.5	56.9	27	523.1	64.2	87	582.6	71.5
48	345.4	42.4	08	405.0	49.7	68	464.5	57.0	28	524.1	64.3	88	583.6	71.7
49	346.4	42.5	09	406.0	49.8	69	465.5	57.2	29	525.1	64.5	89	584.6	71.8
50	347.4	42.7	10	406.9	50.0	70	466.5	57.3	30	526.0	64.6	90	585.6	71.9
351	348.4	42.8	411	407.9	50.1	471	467.5	57.4	531	527.0	64.7	591	586.6	72.0
52	349.4	42.9	12	408.9	50.2	72	468.5	57.5	32	528.0	64.8	92	587.6	72.1
53	350.4	43.0	13	409.9	50.3	73	469.5	57.6	33	529.0	65.0	93	588.6	72.3
54	351.4	43.1	14	410.9	50.5	74	470.5	57.8	34	530.0	65.1	94	589.6	72.4
55	352.4	43.3	15	411.9	50.6	75	471.5	57.9	35	531.0	65.2	95	590.6	72.5
56	353.3	43.4	16	412.9	50.7	76	472.5	58.0	36	532.0	65.3	96	591.6	72.6
57	354.3	43.5	17	413.9	50.8	77	473.4	58.1	37	533.0	65.4	97	592.6	72.8
58	355.3	43.6	18	414.9	50.9	78	474.4	58.3	38	534.0	65.6	98	593.5	72.9
59	356.3	43.8	19	415.9	51.1	79	475.4	58.4	39	535.0	65.7	99	594.5	73.0
60	357.3	43.9	20	416.9	51.2	80	476.4	58.5	40	536.0	65.8	600	595.5	73.1
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

83°

277° | 083°
263° | 097°

TABLE 4

8° Traverse Table

352° / 188° | 008° / 172°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.1	61	60.4	8.5	121	119.8	16.8	181	179.2	25.2	241	238.7	33.5
2	2.0	0.3	62	61.4	8.6	22	120.8	17.0	82	180.2	25.3	42	239.6	33.7
3	3.0	0.4	63	62.4	8.8	23	121.8	17.1	83	181.2	25.5	43	240.6	33.8
4	4.0	0.6	64	63.4	8.9	24	122.8	17.3	84	182.2	25.6	44	241.6	34.0
5	5.0	0.7	65	64.4	9.0	25	123.8	17.4	85	183.2	25.7	45	242.6	34.1
6	5.9	0.8	66	65.4	9.2	26	124.8	17.5	86	184.2	25.9	46	243.6	34.2
7	6.9	1.0	67	66.3	9.3	27	125.8	17.7	87	185.2	26.0	47	244.6	34.4
8	7.9	1.1	68	67.3	9.5	28	126.8	17.8	88	186.2	26.2	48	245.6	34.5
9	8.9	1.3	69	68.3	9.6	29	127.7	18.0	89	187.2	26.3	49	246.6	34.7
10	9.9	1.4	70	69.3	9.7	30	128.7	18.1	90	188.2	26.4	50	247.6	34.8
11	10.9	1.5	71	70.3	9.9	131	129.7	18.2	191	189.1	26.6	251	248.6	34.9
12	11.9	1.7	72	71.3	10.0	32	130.7	18.4	92	190.1	26.7	52	249.5	35.1
13	12.9	1.8	73	72.3	10.2	33	131.7	18.5	93	191.1	26.9	53	250.5	35.2
14	13.9	1.9	74	73.3	10.3	34	132.7	18.6	94	192.1	27.0	54	251.5	35.3
15	14.9	2.1	75	74.3	10.4	35	133.7	18.8	95	193.1	27.1	55	252.5	35.5
16	15.8	2.2	76	75.3	10.6	36	134.7	18.9	96	194.1	27.3	56	253.5	35.6
17	16.8	2.4	77	76.3	10.7	37	135.7	19.1	97	195.1	27.4	57	254.5	35.8
18	17.8	2.5	78	77.2	10.9	38	136.7	19.2	98	196.1	27.6	58	255.5	35.9
19	18.8	2.6	79	78.2	11.0	39	137.6	19.3	99	197.1	27.7	59	256.5	36.0
20	19.8	2.8	80	79.2	11.1	40	138.6	19.5	200	198.1	27.8	60	257.5	36.2
21	20.8	2.9	81	80.2	11.3	141	139.6	19.6	201	199.0	28.0	261	258.5	36.3
22	21.8	3.1	82	81.2	11.4	42	140.6	19.8	02	200.0	28.1	62	259.5	36.5
23	22.8	3.2	83	82.2	11.6	43	141.6	19.9	03	201.0	28.3	63	260.4	36.6
24	23.8	3.3	84	83.2	11.7	44	142.6	20.0	04	202.0	28.4	64	261.4	36.7
25	24.8	3.5	85	84.2	11.8	45	143.6	20.2	05	203.0	28.5	65	262.4	36.9
26	25.7	3.6	86	85.2	12.0	46	144.6	20.3	06	204.0	28.7	66	263.4	37.0
27	26.7	3.8	87	86.2	12.1	47	145.6	20.5	07	205.0	28.8	67	264.4	37.2
28	27.7	3.9	88	87.1	12.2	48	146.6	20.6	08	206.0	28.9	68	265.4	37.3
29	28.7	4.0	89	88.1	12.4	49	147.5	20.7	09	207.0	29.1	69	266.4	37.4
30	29.7	4.2	90	89.1	12.5	50	148.5	20.9	10	208.0	29.2	70	267.4	37.6
31	30.7	4.3	91	90.1	12.7	151	149.5	21.0	211	208.9	29.4	271	268.4	37.7
32	31.7	4.5	92	91.1	12.8	52	150.5	21.2	12	209.9	29.5	72	269.4	37.9
33	32.7	4.6	93	92.1	12.9	53	151.5	21.3	13	210.9	29.6	73	270.3	38.0
34	33.7	4.7	94	93.1	13.1	54	152.5	21.4	14	211.9	29.8	74	271.3	38.1
35	34.7	4.9	95	94.1	13.2	55	153.5	21.6	15	212.9	29.9	75	272.3	38.3
36	35.6	5.0	96	95.1	13.4	56	154.5	21.7	16	213.9	30.1	76	273.3	38.4
37	36.6	5.1	97	96.1	13.5	57	155.5	21.9	17	214.9	30.2	77	274.3	38.6
38	37.6	5.3	98	97.0	13.6	58	156.5	22.0	18	215.9	30.3	78	275.3	38.7
39	38.6	5.4	99	98.0	13.8	59	157.5	22.1	19	216.9	30.5	79	276.3	38.8
40	39.6	5.6	100	99.0	13.9	60	158.4	22.3	20	217.9	30.6	80	277.3	39.0
41	40.6	5.7	101	100.0	14.1	161	159.4	22.4	221	218.8	30.8	281	278.3	39.1
42	41.6	5.8	02	101.0	14.2	62	160.4	22.5	22	219.8	30.9	82	279.3	39.2
43	42.6	6.0	03	102.0	14.3	63	161.4	22.7	23	220.8	31.0	83	280.2	39.4
44	43.6	6.1	04	103.0	14.5	64	162.4	22.8	24	221.8	31.2	84	281.2	39.5
45	44.6	6.3	05	104.0	14.6	65	163.4	23.0	25	222.8	31.3	85	282.2	39.7
46	45.6	6.4	06	105.0	14.8	66	164.4	23.1	26	223.8	31.5	86	283.2	39.8
47	46.5	6.5	07	106.0	14.9	67	165.4	23.2	27	224.8	31.6	87	284.2	39.9
48	47.5	6.7	08	106.9	15.0	68	166.4	23.4	28	225.8	31.7	88	285.2	40.1
49	48.5	6.8	09	107.9	15.2	69	167.4	23.5	29	226.8	31.9	89	286.2	40.2
50	49.5	7.0	10	108.9	15.3	70	168.3	23.7	30	227.8	32.0	90	287.2	40.4
51	50.5	7.1	111	109.9	15.4	171	169.3	23.8	231	228.8	32.1	291	288.2	40.5
52	51.5	7.2	12	110.9	15.6	72	170.3	23.9	32	229.7	32.3	92	289.2	40.6
53	52.5	7.4	13	111.9	15.7	73	171.3	24.1	33	230.7	32.4	93	290.1	40.8
54	53.5	7.5	14	112.9	15.9	74	172.3	24.2	34	231.7	32.6	94	291.1	40.9
55	54.5	7.7	15	113.9	16.0	75	173.3	24.4	35	232.7	32.7	95	292.1	41.1
56	55.5	7.8	16	114.9	16.1	76	174.3	24.5	36	233.7	32.8	96	293.1	41.2
57	56.4	7.9	17	115.9	16.3	77	175.3	24.6	37	234.7	33.0	97	294.1	41.3
58	57.4	8.1	18	116.9	16.4	78	176.3	24.8	38	235.7	33.1	98	295.1	41.5
59	58.4	8.2	19	117.8	16.6	79	177.3	24.9	39	236.7	33.3	99	296.1	41.6
60	59.4	8.4	20	118.8	16.7	80	178.2	25.1	40	237.7	33.4	300	297.1	41.8
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

278° / 262° | 082° / 098°

82°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

8° Traverse Table

352° / 188° | 008° / 172°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	298.1	41.9	361	357.5	50.2	421	416.9	58.6	481	476.3	66.9	541	535.7	75.3
02	299.1	42.0	62	358.5	50.4	22	417.9	58.7	82	477.3	67.1	42	536.7	75.4
03	300.1	42.2	63	359.5	50.5	23	418.9	58.9	83	478.3	67.2	43	537.7	75.6
04	301.0	42.3	64	360.5	50.7	24	419.9	59.0	84	479.3	67.4	44	538.7	75.7
05	302.0	42.4	65	361.4	50.8	25	420.9	59.1	85	480.3	67.5	45	539.7	75.8
06	303.0	42.6	66	362.4	50.9	26	421.9	59.3	86	481.3	67.6	46	540.7	76.0
07	304.0	42.7	67	363.4	51.1	27	422.8	59.4	87	482.3	67.8	47	541.7	76.1
08	305.0	42.9	68	364.4	51.2	28	423.8	59.6	88	483.3	67.9	48	542.7	76.3
09	306.0	43.0	69	365.4	51.4	29	424.8	59.7	89	484.2	68.1	49	543.7	76.4
10	307.0	43.1	70	366.4	51.5	30	425.8	59.8	90	485.2	68.2	50	544.6	76.5
311	308.0	43.3	371	367.4	51.6	431	426.8	60.0	491	486.2	68.3	551	545.6	76.7
12	309.0	43.4	72	368.4	51.8	32	427.8	60.1	92	487.2	68.5	52	546.6	76.8
13	310.0	43.6	73	369.4	51.9	33	428.8	60.3	93	488.2	68.6	53	547.6	77.0
14	310.9	43.7	74	370.4	52.1	34	429.8	60.4	94	489.2	68.8	54	548.6	77.1
15	311.9	43.8	75	371.4	52.2	35	430.8	60.5	95	490.2	68.9	55	549.6	77.2
16	312.9	44.0	76	372.3	52.3	36	431.8	60.7	96	491.2	69.0	56	550.6	77.4
17	313.9	44.1	77	373.3	52.5	37	432.7	60.8	97	492.2	69.2	57	551.6	77.5
18	314.9	44.3	78	374.3	52.6	38	433.7	61.0	98	493.2	69.3	58	552.6	77.7
19	315.9	44.4	79	375.3	52.7	39	434.7	61.1	99	494.1	69.4	59	553.6	77.8
20	316.9	44.5	80	376.3	52.9	40	435.7	61.2	500	495.1	69.6	60	554.6	77.9
321	317.9	44.7	381	377.3	53.0	441	436.7	61.4	501	496.1	69.7	561	555.5	78.1
22	318.9	44.8	82	378.3	53.2	42	437.7	61.5	02	497.1	69.9	62	556.5	78.2
23	319.9	45.0	83	379.3	53.3	43	438.7	61.7	03	498.1	70.0	63	557.5	78.4
24	320.8	45.1	84	380.3	53.4	44	439.7	61.8	04	499.1	70.1	64	558.5	78.5
25	321.8	45.2	85	381.3	53.6	45	440.7	61.9	05	500.1	70.3	65	559.5	78.6
26	322.8	45.4	86	382.2	53.7	46	441.7	62.1	06	501.1	70.4	66	560.5	78.8
27	323.8	45.5	87	383.2	53.9	47	442.6	62.2	07	502.1	70.6	67	561.5	78.9
28	324.8	45.6	88	384.2	54.0	48	443.6	62.3	08	503.1	70.7	68	562.5	79.1
29	325.8	45.8	89	385.2	54.1	49	444.6	62.5	09	504.0	70.8	69	563.5	79.2
30	326.8	45.9	90	386.2	54.3	50	445.6	62.6	10	505.0	71.0	70	564.5	79.3
331	327.8	46.1	391	387.2	54.4	451	446.6	62.8	511	506.0	71.1	571	565.4	79.5
32	328.8	46.2	92	388.2	54.6	52	447.6	62.9	12	507.0	71.3	72	566.4	79.6
33	329.8	46.3	93	389.2	54.7	53	448.6	63.0	13	508.0	71.4	73	567.4	79.7
34	330.7	46.5	94	390.2	54.8	54	449.6	63.2	14	509.0	71.5	74	568.4	79.9
35	331.7	46.6	95	391.2	55.0	55	450.6	63.3	15	510.0	71.7	75	569.4	80.0
36	332.7	46.8	96	392.1	55.1	56	451.6	63.5	16	511.0	71.8	76	570.4	80.2
37	333.7	46.9	97	393.1	55.3	57	452.6	63.6	17	512.0	72.0	77	571.4	80.3
38	334.7	47.0	98	394.1	55.4	58	453.5	63.7	18	513.0	72.1	78	572.4	80.4
39	335.7	47.2	99	395.1	55.5	59	454.5	63.9	19	513.9	72.2	79	573.4	80.6
40	336.7	47.3	400	396.1	55.7	60	455.5	64.0	20	514.9	72.4	80	574.4	80.7
341	337.7	47.5	401	397.1	55.8	461	456.5	64.2	521	515.9	72.5	581	575.3	80.9
42	338.7	47.6	02	398.1	55.9	62	457.5	64.3	22	516.9	72.6	82	576.3	81.0
43	339.7	47.7	03	399.1	56.1	63	458.5	64.4	23	517.9	72.8	83	577.3	81.1
44	340.7	47.9	04	400.1	56.2	64	459.5	64.6	24	518.9	72.9	84	578.3	81.3
45	341.6	48.0	05	401.1	56.4	65	460.5	64.7	25	519.9	73.1	85	579.3	81.4
46	342.6	48.2	06	402.0	56.5	66	461.5	64.9	26	520.9	73.2	86	580.3	81.6
47	343.6	48.3	07	403.0	56.6	67	462.5	65.0	27	521.9	73.3	87	581.3	81.7
48	344.6	48.4	08	404.0	56.8	68	463.4	65.1	28	522.9	73.5	88	582.3	81.8
49	345.6	48.6	09	405.0	56.9	69	464.4	65.3	29	523.9	73.6	89	583.3	82.0
50	346.6	48.7	10	406.0	57.1	70	465.4	65.4	30	524.8	73.8	90	584.3	82.1
351	347.6	48.8	411	407.0	57.2	471	466.4	65.6	531	525.8	73.9	591	585.2	82.3
52	348.6	49.0	12	408.0	57.3	72	467.4	65.7	32	526.8	74.0	92	586.2	82.4
53	349.6	49.1	13	409.0	57.5	73	468.4	65.8	33	527.8	74.2	93	587.2	82.5
54	350.6	49.3	14	410.0	57.6	74	469.4	66.0	34	528.8	74.3	94	588.2	82.7
55	351.5	49.4	15	411.0	57.8	75	470.4	66.1	35	529.8	74.5	95	589.2	82.8
56	352.5	49.5	16	412.0	57.9	76	471.4	66.2	36	530.8	74.6	96	590.2	82.9
57	353.5	49.7	17	412.9	58.0	77	472.4	66.4	37	531.8	74.7	97	591.2	83.1
58	354.5	49.8	18	413.9	58.2	78	473.3	66.5	38	532.8	74.9	98	592.2	83.2
59	355.5	50.0	19	414.9	58.3	79	474.3	66.7	39	533.8	75.0	99	593.2	83.4
60	356.5	50.1	20	415.9	58.5	80	475.3	66.8	40	534.7	75.2	600	594.2	83.5
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

278° / 262° | 082° / 098°

82°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

351° | 009°
189° | 171°

Traverse **9°** Table

351° | 009°
189° | 171°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.2	61	60.2	9.5	121	119.5	18.9	181	178.8	28.3	241	238.0	37.7
2	2.0	0.3	62	61.2	9.7	22	120.5	19.1	82	179.8	28.5	42	239.0	37.9
3	3.0	0.5	63	62.2	9.9	23	121.5	19.2	83	180.7	28.6	43	240.0	38.0
4	4.0	0.6	64	63.2	10.0	24	122.5	19.4	84	181.7	28.8	44	241.0	38.2
5	4.9	0.8	65	64.2	10.2	25	123.5	19.6	85	182.7	28.9	45	242.0	38.3
6	5.9	0.9	66	65.2	10.3	26	124.4	19.7	86	183.7	29.1	46	243.0	38.5
7	6.9	1.1	67	66.2	10.5	27	125.4	19.9	87	184.7	29.3	47	244.0	38.6
8	7.9	1.3	68	67.2	10.6	28	126.4	20.0	88	185.7	29.4	48	244.9	38.8
9	8.9	1.4	69	68.2	10.8	29	127.4	20.2	89	186.7	29.6	49	245.9	39.0
10	9.9	1.6	70	69.1	11.0	30	128.4	20.3	90	187.7	29.7	50	246.9	39.1
11	10.9	1.7	71	70.1	11.1	131	129.4	20.5	191	188.6	29.9	251	247.9	39.3
12	11.9	1.9	72	71.1	11.3	32	130.4	20.6	92	189.6	30.0	52	248.9	39.4
13	12.8	2.0	73	72.1	11.4	33	131.4	20.8	93	190.6	30.2	53	249.9	39.6
14	13.8	2.2	74	73.1	11.6	34	132.4	21.0	94	191.6	30.3	54	250.9	39.7
15	14.8	2.3	75	74.1	11.7	35	133.3	21.1	95	192.6	30.5	55	251.9	39.9
16	15.8	2.5	76	75.1	11.9	36	134.3	21.3	96	193.6	30.7	56	252.8	40.0
17	16.8	2.7	77	76.1	12.0	37	135.3	21.4	97	194.6	30.8	57	253.8	40.2
18	17.8	2.8	78	77.0	12.2	38	136.3	21.6	98	195.6	31.0	58	254.8	40.4
19	18.8	3.0	79	78.0	12.4	39	137.3	21.7	99	196.5	31.1	59	255.8	40.5
20	19.8	3.1	80	79.0	12.5	40	138.3	21.9	200	197.5	31.3	60	256.8	40.7
21	20.7	3.3	81	80.0	12.7	141	139.3	22.1	201	198.5	31.4	261	257.8	40.8
22	21.7	3.4	82	81.0	12.8	42	140.3	22.2	02	199.5	31.6	62	258.8	41.0
23	22.7	3.6	83	82.0	13.0	43	141.2	22.4	03	200.5	31.8	63	259.8	41.1
24	23.7	3.8	84	83.0	13.1	44	142.2	22.5	04	201.5	31.9	64	260.7	41.3
25	24.7	3.9	85	84.0	13.3	45	143.2	22.7	05	202.5	32.1	65	261.7	41.5
26	25.7	4.1	86	84.9	13.5	46	144.2	22.8	06	203.5	32.2	66	262.7	41.6
27	26.7	4.2	87	85.9	13.6	47	145.2	23.0	07	204.5	32.4	67	263.7	41.8
28	27.7	4.4	88	86.9	13.8	48	146.2	23.2	08	205.4	32.5	68	264.7	41.9
29	28.6	4.5	89	87.9	13.9	49	147.2	23.3	09	206.4	32.7	69	265.7	42.1
30	29.6	4.7	90	88.9	14.1	50	148.2	23.5	10	207.4	32.9	70	266.7	42.2
31	30.6	4.8	91	89.9	14.2	151	149.1	23.6	211	208.4	33.0	271	267.7	42.4
32	31.6	5.0	92	90.9	14.4	52	150.1	23.8	12	209.4	33.2	72	268.7	42.6
33	32.6	5.2	93	91.9	14.5	53	151.1	23.9	13	210.4	33.3	73	269.6	42.7
34	33.6	5.3	94	92.8	14.7	54	152.1	24.1	14	211.4	33.5	74	270.6	42.9
35	34.6	5.5	95	93.8	14.9	55	153.1	24.2	15	212.4	33.6	75	271.6	43.0
36	35.6	5.6	96	94.8	15.0	56	154.1	24.4	16	213.3	33.8	76	272.6	43.2
37	36.5	5.8	97	95.8	15.2	57	155.1	24.6	17	214.3	33.9	77	273.6	43.3
38	37.5	5.9	98	96.8	15.3	58	156.1	24.7	18	215.3	34.1	78	274.6	43.5
39	38.5	6.1	99	97.8	15.5	59	157.0	24.9	19	216.3	34.3	79	275.6	43.6
40	39.5	6.3	100	98.8	15.6	60	158.0	25.0	20	217.3	34.4	80	276.6	43.8
41	40.5	6.4	101	99.8	15.8	161	159.0	25.2	221	218.3	34.6	281	277.5	44.0
42	41.5	6.6	02	100.7	16.0	62	160.0	25.3	22	219.3	34.7	82	278.5	44.1
43	42.5	6.7	03	101.7	16.1	63	161.0	25.5	23	220.3	34.9	83	279.5	44.3
44	43.5	6.9	04	102.7	16.3	64	162.0	25.7	24	221.2	35.0	84	280.5	44.4
45	44.4	7.0	05	103.7	16.4	65	163.0	25.8	25	222.2	35.2	85	281.5	44.6
46	45.4	7.2	06	104.7	16.6	66	164.0	26.0	26	223.2	35.4	86	282.5	44.7
47	46.4	7.4	07	105.7	16.7	67	164.9	26.1	27	224.2	35.5	87	283.5	44.9
48	47.4	7.5	08	106.7	16.9	68	165.9	26.3	28	225.2	35.7	88	284.5	45.1
49	48.4	7.7	09	107.7	17.1	69	166.9	26.4	29	226.2	35.8	89	285.4	45.2
50	49.4	7.8	10	108.6	17.2	70	167.9	26.6	30	227.2	36.0	90	286.4	45.4
51	50.4	8.0	111	109.6	17.4	171	168.9	26.8	231	228.2	36.1	291	287.4	45.5
52	51.4	8.1	12	110.6	17.5	72	169.9	26.9	32	229.1	36.3	92	288.4	45.7
53	52.3	8.3	13	111.6	17.7	73	170.9	27.1	33	230.1	36.4	93	289.4	45.8
54	53.3	8.4	14	112.6	17.8	74	171.9	27.2	34	231.1	36.6	94	290.4	46.0
55	54.3	8.6	15	113.6	18.0	75	172.8	27.4	35	232.1	36.8	95	291.4	46.1
56	55.3	8.8	16	114.6	18.1	76	173.8	27.5	36	233.1	36.9	96	292.4	46.3
57	56.3	8.9	17	115.6	18.3	77	174.8	27.7	37	234.1	37.1	97	293.3	46.5
58	57.3	9.1	18	116.5	18.5	78	175.8	27.8	38	235.1	37.2	98	294.3	46.6
59	58.3	9.2	19	117.5	18.6	79	176.8	28.0	39	236.1	37.4	99	295.3	46.8
60	59.3	9.4	20	118.5	18.8	80	177.8	28.2	40	237.0	37.5	300	296.3	46.9
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

279° | 081°
261° | 099°

81°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

351° | 009°
189° | 171°

Traverse **9°** Table

351° | 009°
189° | 171°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	297.3	47.1	361	356.6	56.5	421	415.8	65.9	481	475.1	75.2	541	534.3	84.6
02	298.3	47.2	62	357.5	56.6	22	416.8	66.0	82	476.1	75.4	42	535.3	84.8
03	299.3	47.4	63	358.5	56.8	23	417.8	66.2	83	477.1	75.6	43	536.3	84.9
04	300.3	47.6	64	359.5	56.9	24	418.8	66.3	84	478.0	75.7	44	537.3	85.1
05	301.2	47.7	65	360.5	57.1	25	419.8	66.5	85	479.0	75.9	45	538.3	85.3
06	302.2	47.9	66	361.5	57.3	26	420.8	66.6	86	480.0	76.0	46	539.3	85.4
07	303.2	48.0	67	362.5	57.4	27	421.7	66.8	87	481.0	76.2	47	540.3	85.6
08	304.2	48.2	68	363.5	57.6	28	422.7	67.0	88	482.0	76.3	48	541.3	85.7
09	305.2	48.3	69	364.5	57.7	29	423.7	67.1	89	483.0	76.5	49	542.2	85.9
10	306.2	48.5	70	365.4	57.9	30	424.7	67.3	90	484.0	76.7	50	543.2	86.0
311	307.2	48.7	371	366.4	58.0	431	425.7	67.4	491	485.0	76.8	551	544.2	86.2
12	308.2	48.8	72	367.4	58.2	32	426.7	67.6	92	485.9	77.0	52	545.2	86.4
13	309.1	49.0	73	368.4	58.4	33	427.7	67.7	93	486.9	77.1	53	546.2	86.5
14	310.1	49.1	74	369.4	58.5	34	428.7	67.9	94	487.9	77.3	54	547.2	86.7
15	311.1	49.3	75	370.4	58.7	35	429.6	68.0	95	488.9	77.4	55	548.2	86.8
16	312.1	49.4	76	371.4	58.8	36	430.6	68.2	96	489.9	77.6	56	549.2	87.0
17	313.1	49.6	77	372.4	59.0	37	431.6	68.4	97	490.9	77.7	57	550.1	87.1
18	314.1	49.7	78	373.3	59.1	38	432.6	68.5	98	491.9	77.9	58	551.1	87.3
19	315.1	49.9	79	374.3	59.3	39	433.6	68.7	99	492.9	78.1	59	552.1	87.4
20	316.1	50.1	80	375.3	59.4	40	434.6	68.8	500	493.8	78.2	60	553.1	87.6
321	317.0	50.2	381	376.3	59.6	441	435.6	69.0	501	494.8	78.4	561	554.1	87.8
22	318.0	50.4	82	377.3	59.8	42	436.6	69.1	02	495.8	78.5	62	555.1	87.9
23	319.0	50.5	83	378.3	59.9	43	437.5	69.3	03	496.8	78.7	63	556.1	88.1
24	320.0	50.7	84	379.3	60.1	44	438.5	69.5	04	497.8	78.8	64	557.1	88.2
25	321.0	50.8	85	380.3	60.2	45	439.5	69.6	05	498.8	79.0	65	558.0	88.4
26	322.0	51.0	86	381.2	60.4	46	440.5	69.8	06	499.8	79.2	66	559.0	88.5
27	323.0	51.2	87	382.2	60.5	47	441.5	69.9	07	500.8	79.3	67	560.0	88.7
28	324.0	51.3	88	383.2	60.7	48	442.5	70.1	08	501.7	79.5	68	561.0	88.9
29	324.9	51.5	89	384.2	60.9	49	443.5	70.2	09	502.7	79.6	69	562.0	89.0
30	325.9	51.6	90	385.2	61.0	50	444.5	70.4	10	503.7	79.8	70	563.0	89.2
331	326.9	51.8	391	386.2	61.2	451	445.4	70.6	511	504.7	79.9	571	564.0	89.3
32	327.9	51.9	92	387.2	61.3	52	446.4	70.7	12	505.7	80.1	72	565.0	89.5
33	328.9	52.1	93	388.2	61.5	53	447.4	70.9	13	506.7	80.3	73	565.9	89.6
34	329.9	52.2	94	389.1	61.6	54	448.4	71.0	14	507.7	80.4	74	566.9	89.8
35	330.9	52.4	95	390.1	61.8	55	449.4	71.2	15	508.7	80.6	75	567.9	89.9
36	331.9	52.6	96	391.1	61.9	56	450.4	71.3	16	509.6	80.7	76	568.9	90.1
37	332.9	52.7	97	392.1	62.1	57	451.4	71.5	17	510.6	80.9	77	569.9	90.3
38	333.8	52.9	98	393.1	62.3	58	452.4	71.6	18	511.6	81.0	78	570.9	90.4
39	334.8	53.0	99	394.1	62.4	59	453.3	71.8	19	512.6	81.2	79	571.9	90.6
40	335.8	53.2	400	395.1	62.6	60	454.3	72.0	20	513.6	81.3	80	572.9	90.7
341	336.8	53.3	401	396.1	62.7	461	455.3	72.1	521	514.6	81.5	581	573.8	90.9
42	337.8	53.5	02	397.1	62.9	62	456.3	72.3	22	515.6	81.7	82	574.8	91.0
43	338.8	53.7	03	398.0	63.0	63	457.3	72.4	23	516.6	81.8	83	575.8	91.2
44	339.8	53.8	04	399.0	63.2	64	458.3	72.6	24	517.5	82.0	84	576.8	91.4
45	340.8	54.0	05	400.0	63.4	65	459.3	72.7	25	518.5	82.1	85	577.8	91.5
46	341.7	54.1	06	401.0	63.5	66	460.3	72.9	26	519.5	82.3	86	578.8	91.7
47	342.7	54.3	07	402.0	63.7	67	461.3	73.1	27	520.5	82.4	87	579.8	91.8
48	343.7	54.4	08	403.0	63.8	68	462.2	73.2	28	521.5	82.6	88	580.8	92.0
49	344.7	54.6	09	404.0	64.0	69	463.2	73.4	29	522.5	82.8	89	581.7	92.1
50	345.7	54.8	10	405.0	64.1	70	464.2	73.5	30	523.5	82.9	90	582.7	92.3
351	346.7	54.9	411	405.9	64.3	471	465.2	73.7	531	524.5	83.1	591	583.7	92.5
52	347.7	55.1	12	406.9	64.5	72	466.2	73.8	32	525.5	83.2	92	584.7	92.6
53	348.7	55.2	13	407.9	64.6	73	467.2	74.0	33	526.4	83.4	93	585.7	92.8
54	349.6	55.4	14	408.9	64.8	74	468.2	74.1	34	527.4	83.5	94	586.7	92.9
55	350.6	55.5	15	409.9	64.9	75	469.2	74.3	35	528.4	83.7	95	587.7	93.1
56	351.6	55.7	16	410.9	65.1	76	470.1	74.5	36	529.4	83.8	96	588.7	93.2
57	352.6	55.8	17	411.9	65.2	77	471.1	74.6	37	530.4	84.0	97	589.6	93.4
58	353.6	56.0	18	412.9	65.4	78	472.1	74.8	38	531.4	84.2	98	590.6	93.5
59	354.6	56.2	19	413.8	65.5	79	473.1	74.9	39	532.4	84.3	99	591.6	93.7
60	355.6	56.3	20	414.8	65.7	80	474.1	75.1	40	533.4	84.5	600	592.6	93.9
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

81°

279° | 081°
261° | 099°

TABLE 4

10° Traverse Table

350° / 190° | 010° / 170°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.2	61	60.1	10.6	121	119.2	21.0	181	178.3	31.4	241	237.3	41.8
2	2.0	0.3	62	61.1	10.8	22	120.1	21.2	82	179.2	31.6	42	238.3	42.0
3	3.0	0.5	63	62.0	10.9	23	121.1	21.4	83	180.2	31.8	43	239.3	42.2
4	3.9	0.7	64	63.0	11.1	24	122.1	21.5	84	181.2	32.0	44	240.3	42.4
5	4.9	0.9	65	64.0	11.3	25	123.1	21.7	85	182.2	32.1	45	241.3	42.5
6	5.9	1.0	66	65.0	11.5	26	124.1	21.9	86	183.2	32.3	46	242.3	42.7
7	6.9	1.2	67	66.0	11.6	27	125.1	22.1	87	184.2	32.5	47	243.2	42.9
8	7.9	1.4	68	67.0	11.8	28	126.1	22.2	88	185.1	32.6	48	244.2	43.1
9	8.9	1.6	69	68.0	12.0	29	127.0	22.4	89	186.1	32.8	49	245.2	43.2
10	9.8	1.7	70	68.9	12.2	30	128.0	22.6	90	187.1	33.0	50	246.2	43.4
11	10.8	1.9	71	69.9	12.3	131	129.0	22.7	191	188.1	33.2	251	247.2	43.6
12	11.8	2.1	72	70.9	12.5	32	130.0	22.9	92	189.1	33.3	52	248.2	43.8
13	12.8	2.3	73	71.9	12.7	33	131.0	23.1	93	190.1	33.5	53	249.2	43.9
14	13.8	2.4	74	72.9	12.8	34	132.0	23.3	94	191.1	33.7	54	250.1	44.1
15	14.8	2.6	75	73.9	13.0	35	132.9	23.4	95	192.0	33.9	55	251.1	44.3
16	15.8	2.8	76	74.8	13.2	36	133.9	23.6	96	193.0	34.0	56	252.1	44.5
17	16.7	3.0	77	75.8	13.4	37	134.9	23.8	97	194.0	34.2	57	253.1	44.6
18	17.7	3.1	78	76.8	13.5	38	135.9	24.0	98	195.0	34.4	58	254.1	44.8
19	18.7	3.3	79	77.8	13.7	39	136.9	24.1	99	196.0	34.6	59	255.1	45.0
20	19.7	3.5	80	78.8	13.9	40	137.9	24.3	200	197.0	34.7	60	256.1	45.1
21	20.7	3.6	81	79.8	14.1	141	138.9	24.5	201	197.9	34.9	261	257.0	45.3
22	21.7	3.8	82	80.8	14.2	42	139.8	24.7	02	198.9	35.1	62	258.0	45.5
23	22.7	4.0	83	81.7	14.4	43	140.8	24.8	03	199.9	35.3	63	259.0	45.7
24	23.6	4.2	84	82.7	14.6	44	141.8	25.0	04	200.9	35.4	64	260.0	45.8
25	24.6	4.3	85	83.7	14.8	45	142.8	25.2	05	201.9	35.6	65	261.0	46.0
26	25.6	4.5	86	84.7	14.9	46	143.8	25.4	06	202.9	35.8	66	262.0	46.2
27	26.6	4.7	87	85.7	15.1	47	144.8	25.5	07	203.9	35.9	67	262.9	46.4
28	27.6	4.9	88	86.7	15.3	48	145.8	25.7	08	204.8	36.1	68	263.9	46.5
29	28.6	5.0	89	87.6	15.5	49	146.7	25.9	09	205.8	36.3	69	264.9	46.7
30	29.5	5.2	90	88.6	15.6	50	147.7	26.0	10	206.8	36.5	70	265.9	46.9
31	30.5	5.4	91	89.6	15.8	151	148.7	26.2	211	207.8	36.6	271	266.9	47.1
32	31.5	5.6	92	90.6	16.0	52	149.7	26.4	12	208.8	36.8	72	267.9	47.2
33	32.5	5.7	93	91.6	16.1	53	150.7	26.6	13	209.8	37.0	73	268.9	47.4
34	33.5	5.9	94	92.6	16.3	54	151.7	26.7	14	210.7	37.2	74	269.8	47.6
35	34.5	6.1	95	93.6	16.5	55	152.6	26.9	15	211.7	37.3	75	270.8	47.8
36	35.5	6.3	96	94.5	16.7	56	153.6	27.1	16	212.7	37.5	76	271.8	47.9
37	36.4	6.4	97	95.5	16.8	57	154.6	27.3	17	213.7	37.7	77	272.8	48.1
38	37.4	6.6	98	96.5	17.0	58	155.6	27.4	18	214.7	37.9	78	273.8	48.3
39	38.4	6.8	99	97.5	17.2	59	156.6	27.6	19	215.7	38.0	79	274.8	48.4
40	39.4	6.9	100	98.5	17.4	60	157.6	27.8	20	216.7	38.2	80	275.7	48.6
41	40.4	7.1	101	99.5	17.5	161	158.6	28.0	221	217.6	38.4	281	276.7	48.8
42	41.4	7.3	02	100.5	17.7	62	159.5	28.1	22	218.6	38.5	82	277.7	49.0
43	42.3	7.5	03	101.4	17.9	63	160.5	28.3	23	219.6	38.7	83	278.7	49.1
44	43.3	7.6	04	102.4	18.1	64	161.5	28.5	24	220.6	38.9	84	279.7	49.3
45	44.3	7.8	05	103.4	18.2	65	162.5	28.7	25	221.6	39.1	85	280.7	49.5
46	45.3	8.0	06	104.4	18.4	66	163.5	28.8	26	222.6	39.2	86	281.7	49.7
47	46.3	8.2	07	105.4	18.6	67	164.5	29.0	27	223.6	39.4	87	282.6	49.8
48	47.3	8.3	08	106.4	18.8	68	165.4	29.2	28	224.5	39.6	88	283.6	50.0
49	48.3	8.5	09	107.3	18.9	69	166.4	29.3	29	225.5	39.8	89	284.6	50.2
50	49.2	8.7	10	108.3	19.1	70	167.4	29.5	30	226.5	39.9	90	285.6	50.4
51	50.2	8.9	111	109.3	19.3	171	168.4	29.7	231	227.5	40.1	291	286.6	50.5
52	51.2	9.0	12	110.3	19.4	72	169.4	29.9	32	228.5	40.3	92	287.6	50.7
53	52.2	9.2	13	111.3	19.6	73	170.4	30.0	33	229.5	40.5	93	288.5	50.9
54	53.2	9.4	14	112.3	19.8	74	171.4	30.2	34	230.4	40.6	94	289.5	51.1
55	54.2	9.6	15	113.3	20.0	75	172.3	30.4	35	231.4	40.8	95	290.5	51.2
56	55.1	9.7	16	114.2	20.1	76	173.3	30.6	36	232.4	41.0	96	291.5	51.4
57	56.1	9.9	17	115.2	20.3	77	174.3	30.7	37	233.4	41.2	97	292.5	51.6
58	57.1	10.1	18	116.2	20.5	78	175.3	30.9	38	234.4	41.3	98	293.5	51.7
59	58.1	10.2	19	117.2	20.7	79	176.3	31.1	39	235.4	41.5	99	294.5	51.9
60	59.1	10.4	20	118.2	20.8	80	177.3	31.3	40	236.4	41.7	300	295.4	52.1
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

280° / 260° | 080° / 100°

80°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

10° Traverse Table

350° / 190° | 010° / 170°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	296.4	52.3	361	355.5	62.7	421	414.6	73.1	481	473.7	83.5	541	532.8	93.9
02	297.4	52.4	62	356.5	62.9	22	415.6	73.3	82	474.7	83.7	42	533.8	94.1
03	298.4	52.6	63	357.5	63.0	23	416.6	73.5	83	475.7	83.9	43	534.8	94.3
04	299.4	52.8	64	358.5	63.2	24	417.6	73.6	84	476.6	84.0	44	535.7	94.5
05	300.4	53.0	65	359.5	63.4	25	418.5	73.8	85	477.6	84.2	45	536.7	94.6
06	301.4	53.1	66	360.4	63.6	26	419.5	74.0	86	478.6	84.4	46	537.7	94.8
07	302.3	53.3	67	361.4	63.7	27	420.5	74.1	87	479.6	84.6	47	538.7	95.0
08	303.3	53.5	68	362.4	63.9	28	421.5	74.3	88	480.6	84.7	48	539.7	95.2
09	304.3	53.7	69	363.4	64.1	29	422.5	74.5	89	481.6	84.9	49	540.7	95.3
10	305.3	53.8	70	364.4	64.2	30	423.5	74.7	90	482.6	85.1	50	541.6	95.5
311	306.3	54.0	371	365.4	64.4	431	424.5	74.8	491	483.5	85.3	551	542.6	95.7
12	307.3	54.2	72	366.3	64.6	32	425.4	75.0	92	484.5	85.4	52	543.6	95.9
13	308.2	54.4	73	367.3	64.8	33	426.4	75.2	93	485.5	85.6	53	544.6	96.0
14	309.2	54.5	74	368.3	64.9	34	427.4	75.4	94	486.5	85.8	54	545.6	96.2
15	310.2	54.7	75	369.3	65.1	35	428.4	75.5	95	487.5	86.0	55	546.6	96.4
16	311.2	54.9	76	370.3	65.3	36	429.4	75.7	96	488.5	86.1	56	547.6	96.5
17	312.2	55.0	77	371.3	65.5	37	430.4	75.9	97	489.4	86.3	57	548.5	96.7
18	313.2	55.2	78	372.3	65.6	38	431.3	76.1	98	490.4	86.5	58	549.5	96.9
19	314.2	55.4	79	373.2	65.8	39	432.3	76.2	99	491.4	86.7	59	550.5	97.1
20	315.1	55.6	80	374.2	66.0	40	433.3	76.4	500	492.4	86.8	60	551.5	97.2
321	316.1	55.7	381	375.2	66.2	441	434.3	76.6	501	493.4	87.0	561	552.5	97.4
22	317.1	55.9	82	376.2	66.3	42	435.3	76.8	02	494.4	87.2	62	553.5	97.6
23	318.1	56.1	83	377.2	66.5	43	436.3	76.9	03	495.4	87.3	63	554.4	97.8
24	319.1	56.3	84	378.2	66.7	44	437.3	77.1	04	496.3	87.5	64	555.4	97.9
25	320.1	56.4	85	379.2	66.9	45	438.2	77.3	05	497.3	87.7	65	556.4	98.1
26	321.0	56.6	86	380.1	67.0	46	439.2	77.4	06	498.3	87.9	66	557.4	98.3
27	322.0	56.8	87	381.1	67.2	47	440.2	77.6	07	499.3	88.0	67	558.4	98.5
28	323.0	57.0	88	382.1	67.4	48	441.2	77.8	08	500.3	88.2	68	559.4	98.6
29	324.0	57.1	89	383.1	67.5	49	442.2	78.0	09	501.3	88.4	69	560.4	98.8
30	325.0	57.3	90	384.1	67.7	50	443.2	78.1	10	502.3	88.6	70	561.3	99.0
331	326.0	57.5	391	385.1	67.9	451	444.1	78.3	511	503.2	88.7	571	562.3	99.2
32	327.0	57.7	92	386.0	68.1	52	445.1	78.5	12	504.2	88.9	72	563.3	99.3
33	327.9	57.8	93	387.0	68.2	53	446.1	78.7	13	505.2	89.1	73	564.3	99.5
34	328.9	58.0	94	388.0	68.4	54	447.1	78.8	14	506.2	89.3	74	565.3	99.7
35	329.9	58.2	95	389.0	68.6	55	448.1	79.0	15	507.2	89.4	75	566.3	99.8
36	330.9	58.3	96	390.0	68.8	56	449.1	79.2	16	508.2	89.6	76	567.2	100.0
37	331.9	58.5	97	391.0	68.9	57	450.1	79.4	17	509.1	89.8	77	568.2	100.2
38	332.9	58.7	98	392.0	69.1	58	451.0	79.5	18	510.1	89.9	78	569.2	100.4
39	333.8	58.9	99	392.9	69.3	59	452.0	79.7	19	511.1	90.1	79	570.2	100.5
40	334.8	59.0	400	393.9	69.5	60	453.0	79.9	20	512.1	90.3	80	571.2	100.7
341	335.8	59.2	401	394.9	69.6	461	454.0	80.1	521	513.1	90.5	581	572.2	100.9
42	336.8	59.4	02	395.9	69.8	62	455.0	80.2	22	514.1	90.6	82	573.2	101.1
43	337.8	59.6	03	396.9	70.0	63	456.0	80.4	23	515.1	90.8	83	574.1	101.2
44	338.8	59.7	04	397.9	70.2	64	457.0	80.6	24	516.0	91.0	84	575.1	101.4
45	339.8	59.9	05	398.8	70.3	65	457.9	80.7	25	517.0	91.2	85	576.1	101.6
46	340.7	60.1	06	399.8	70.5	66	458.9	80.9	26	518.0	91.3	86	577.1	101.8
47	341.7	60.3	07	400.8	70.7	67	459.9	81.1	27	519.0	91.5	87	578.1	101.9
48	342.7	60.4	08	401.8	70.8	68	460.9	81.3	28	520.0	91.7	88	579.1	102.1
49	343.7	60.6	09	402.8	71.0	69	461.9	81.4	29	521.0	91.9	89	580.1	102.3
50	344.7	60.8	10	403.8	71.2	70	462.9	81.6	30	521.9	92.0	90	581.0	102.5
351	345.7	61.0	411	404.8	71.4	471	463.8	81.8	531	522.9	92.2	591	582.0	102.6
52	346.7	61.1	12	405.7	71.5	72	464.8	82.0	32	523.9	92.4	92	583.0	102.8
53	347.6	61.3	13	406.7	71.7	73	465.8	82.1	33	524.9	92.6	93	584.0	103.0
54	348.6	61.5	14	407.7	71.9	74	466.8	82.3	34	525.9	92.7	94	585.0	103.1
55	349.6	61.6	15	408.7	72.1	75	467.8	82.5	35	526.9	92.9	95	586.0	103.3
56	350.6	61.8	16	409.7	72.2	76	468.8	82.7	36	527.9	93.1	96	586.9	103.5
57	351.6	62.0	17	410.7	72.4	77	469.8	82.8	37	528.8	93.2	97	587.9	103.7
58	352.6	62.2	18	411.6	72.6	78	470.7	83.0	38	529.8	93.4	98	588.9	103.8
59	353.5	62.3	19	412.6	72.8	79	471.7	83.2	39	530.8	93.6	99	589.9	104.0
60	354.5	62.5	20	413.6	72.9	80	472.7	83.4	40	531.8	93.8	600	590.9	104.2
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

280° / 260° | 080° / 100°

80°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

349° | 011°
191° | 169°

Traverse **11°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.2	61	59.9	11.6	121	118.8	23.1	181	177.7	34.5	241	236.6	46.0
2	2.0	0.4	62	60.9	11.8	22	119.8	23.3	82	178.7	34.7	42	237.6	46.2
3	2.9	0.6	63	61.8	12.0	23	120.7	23.5	83	179.6	34.9	43	238.5	46.4
4	3.9	0.8	64	62.8	12.2	24	121.7	23.7	84	180.6	35.1	44	239.5	46.6
5	4.9	1.0	65	63.8	12.4	25	122.7	23.9	85	181.6	35.3	45	240.5	46.7
6	5.9	1.1	66	64.8	12.6	26	123.7	24.0	86	182.6	35.5	46	241.5	46.9
7	6.9	1.3	67	65.8	12.8	27	124.7	24.2	87	183.6	35.7	47	242.5	47.1
8	7.9	1.5	68	66.8	13.0	28	125.6	24.4	88	184.5	35.9	48	243.4	47.3
9	8.8	1.7	69	67.7	13.2	29	126.6	24.6	89	185.5	36.1	49	244.4	47.5
10	9.8	1.9	70	68.7	13.4	30	127.6	24.8	90	186.5	36.3	50	245.4	47.7
11	10.8	2.1	71	69.7	13.5	131	128.6	25.0	191	187.5	36.4	251	246.4	47.9
12	11.8	2.3	72	70.7	13.7	32	129.6	25.2	92	188.5	36.6	52	247.4	48.1
13	12.8	2.5	73	71.7	13.9	33	130.6	25.4	93	189.5	36.8	53	248.4	48.3
14	13.7	2.7	74	72.6	14.1	34	131.5	25.6	94	190.4	37.0	54	249.3	48.5
15	14.7	2.9	75	73.6	14.3	35	132.5	25.8	95	191.4	37.2	55	250.3	48.7
16	15.7	3.1	76	74.6	14.5	36	133.5	26.0	96	192.4	37.4	56	251.3	48.8
17	16.7	3.2	77	75.6	14.7	37	134.5	26.1	97	193.4	37.6	57	252.3	49.0
18	17.7	3.4	78	76.6	14.9	38	135.5	26.3	98	194.4	37.8	58	253.3	49.2
19	18.7	3.6	79	77.5	15.1	39	136.4	26.5	99	195.3	38.0	59	254.2	49.4
20	19.6	3.8	80	78.5	15.3	40	137.4	26.7	200	196.3	38.2	60	255.2	49.6
21	20.6	4.0	81	79.5	15.5	141	138.4	26.9	201	197.3	38.4	261	256.2	49.8
22	21.6	4.2	82	80.5	15.6	42	139.4	27.1	02	198.3	38.5	62	257.2	50.0
23	22.6	4.4	83	81.5	15.8	43	140.4	27.3	03	199.3	38.7	63	258.2	50.2
24	23.6	4.6	84	82.5	16.0	44	141.4	27.5	04	200.3	38.9	64	259.1	50.4
25	24.5	4.8	85	83.4	16.2	45	142.3	27.7	05	201.2	39.1	65	260.1	50.6
26	25.5	5.0	86	84.4	16.4	46	143.3	27.9	06	202.2	39.3	66	261.1	50.8
27	26.5	5.2	87	85.4	16.6	47	144.3	28.0	07	203.2	39.5	67	262.1	50.9
28	27.5	5.3	88	86.4	16.8	48	145.3	28.2	08	204.2	39.7	68	263.1	51.1
29	28.5	5.5	89	87.4	17.0	49	146.3	28.4	09	205.2	39.9	69	264.1	51.3
30	29.4	5.7	90	88.3	17.2	50	147.2	28.6	10	206.1	40.1	70	265.0	51.5
31	30.4	5.9	91	89.3	17.4	151	148.2	28.8	211	207.1	40.3	271	266.0	51.7
32	31.4	6.1	92	90.3	17.6	52	149.2	29.0	12	208.1	40.5	72	267.0	51.9
33	32.4	6.3	93	91.3	17.7	53	150.2	29.2	13	209.1	40.6	73	268.0	52.1
34	33.4	6.5	94	92.3	17.9	54	151.2	29.4	14	210.1	40.8	74	269.0	52.3
35	34.4	6.7	95	93.3	18.1	55	152.2	29.6	15	211.0	41.0	75	269.9	52.5
36	35.3	6.9	96	94.2	18.3	56	153.1	29.8	16	212.0	41.2	76	270.9	52.7
37	36.3	7.1	97	95.2	18.5	57	154.1	30.0	17	213.0	41.4	77	271.9	52.9
38	37.3	7.3	98	96.2	18.7	58	155.1	30.1	18	214.0	41.6	78	272.9	53.0
39	38.3	7.4	99	97.2	18.9	59	156.1	30.3	19	215.0	41.8	79	273.9	53.2
40	39.3	7.6	100	98.2	19.1	60	157.1	30.5	20	216.0	42.0	80	274.9	53.4
41	40.2	7.8	101	99.1	19.3	161	158.0	30.7	221	216.9	42.2	281	275.8	53.6
42	41.2	8.0	02	100.1	19.5	62	159.0	30.9	22	217.9	42.4	82	276.8	53.8
43	42.2	8.2	03	101.1	19.7	63	160.0	31.1	23	218.9	42.6	83	277.8	54.0
44	43.2	8.4	04	102.1	19.8	64	161.0	31.3	24	219.9	42.7	84	278.8	54.2
45	44.2	8.6	05	103.1	20.0	65	162.0	31.5	25	220.9	42.9	85	279.8	54.4
46	45.2	8.8	06	104.1	20.2	66	163.0	31.7	26	221.8	43.1	86	280.7	54.6
47	46.1	9.0	07	105.0	20.4	67	163.9	31.9	27	222.8	43.3	87	281.7	54.8
48	47.1	9.2	08	106.0	20.6	68	164.9	32.1	28	223.8	43.5	88	282.7	55.0
49	48.1	9.3	09	107.0	20.8	69	165.9	32.2	29	224.8	43.7	89	283.7	55.1
50	49.1	9.5	10	108.0	21.0	70	166.9	32.4	30	225.8	43.9	90	284.7	55.3
51	50.1	9.7	111	109.0	21.2	171	167.9	32.6	231	226.8	44.1	291	285.7	55.5
52	51.0	9.9	12	109.9	21.4	72	168.8	32.8	32	227.7	44.3	92	286.6	55.7
53	52.0	10.1	13	110.9	21.6	73	169.8	33.0	33	228.7	44.5	93	287.6	55.9
54	53.0	10.3	14	111.9	21.8	74	170.8	33.2	34	229.7	44.6	94	288.6	56.1
55	54.0	10.5	15	112.9	21.9	75	171.8	33.4	35	230.7	44.8	95	289.6	56.3
56	55.0	10.7	16	113.9	22.1	76	172.8	33.6	36	231.7	45.0	96	290.6	56.5
57	56.0	10.9	17	114.9	22.3	77	173.7	33.8	37	232.6	45.2	97	291.5	56.7
58	56.9	11.1	18	115.8	22.5	78	174.7	34.0	38	233.6	45.4	98	292.5	56.9
59	57.9	11.3	19	116.8	22.7	79	175.7	34.2	39	234.6	45.6	99	293.5	57.1
60	58.9	11.4	20	117.8	22.9	80	176.7	34.3	40	235.6	45.8	300	294.5	57.2
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

281° | 079°
259° | 101°

79°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

349° | 011°
191° | 169°

Traverse **11°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	295.5	57.4	361	354.4	68.9	421	413.3	80.3	481	472.2	91.8	541	531.1	103.2
02	296.5	57.6	62	355.3	69.1	22	414.2	80.5	82	473.1	92.0	42	532.0	103.4
03	297.4	57.8	63	356.3	69.3	23	415.2	80.7	83	474.1	92.2	43	533.0	103.6
04	298.4	58.0	64	357.3	69.5	24	416.2	80.9	84	475.1	92.4	44	534.0	103.8
05	299.4	58.2	65	358.3	69.6	25	417.2	81.1	85	476.1	92.5	45	535.0	104.0
06	300.4	58.4	66	359.3	69.8	26	418.2	81.3	86	477.1	92.7	46	536.0	104.2
07	301.4	58.6	67	360.3	70.0	27	419.2	81.5	87	478.1	92.9	47	537.0	104.4
08	302.3	58.8	68	361.2	70.2	28	420.1	81.7	88	479.0	93.1	48	537.9	104.6
09	303.3	59.0	69	362.2	70.4	29	421.1	81.9	89	480.0	93.3	49	538.9	104.8
10	304.3	59.2	70	363.2	70.6	30	422.1	82.0	90	481.0	93.5	50	539.9	104.9
311	305.3	59.3	371	364.2	70.8	431	423.1	82.2	491	482.0	93.7	551	540.9	105.1
12	306.3	59.5	72	365.2	71.0	32	424.1	82.4	92	483.0	93.9	52	541.9	105.3
13	307.2	59.7	73	366.1	71.2	33	425.0	82.6	93	483.9	94.1	53	542.8	105.5
14	308.2	59.9	74	367.1	71.4	34	426.0	82.8	94	484.9	94.3	54	543.8	105.7
15	309.2	60.1	75	368.1	71.6	35	427.0	83.0	95	485.9	94.5	55	544.8	105.9
16	310.2	60.3	76	369.1	71.7	36	428.0	83.2	96	486.9	94.6	56	545.8	106.1
17	311.2	60.5	77	370.1	71.9	37	429.0	83.4	97	487.9	94.8	57	546.8	106.3
18	312.2	60.7	78	371.1	72.1	38	430.0	83.6	98	488.9	95.0	58	547.7	106.5
19	313.1	60.9	79	372.0	72.3	39	430.9	83.8	99	489.8	95.2	59	548.7	106.7
20	314.1	61.1	80	373.0	72.5	40	431.9	84.0	500	490.8	95.4	60	549.7	106.9
321	315.1	61.2	381	374.0	72.7	441	432.9	84.1	501	491.8	95.6	561	550.7	107.0
22	316.1	61.4	82	375.0	72.9	42	433.9	84.3	02	492.8	95.8	62	551.7	107.2
23	317.1	61.6	83	376.0	73.1	43	434.9	84.5	03	493.8	96.0	63	552.7	107.4
24	318.0	61.8	84	376.9	73.3	44	435.8	84.7	04	494.7	96.2	64	553.6	107.6
25	319.0	62.0	85	377.9	73.5	45	436.8	84.9	05	495.7	96.4	65	554.6	107.8
26	320.0	62.2	86	378.9	73.7	46	437.8	85.1	06	496.7	96.5	66	555.6	108.0
27	321.0	62.4	87	379.9	73.8	47	438.8	85.3	07	497.7	96.7	67	556.6	108.2
28	322.0	62.6	88	380.9	74.0	48	439.8	85.5	08	498.7	96.9	68	557.6	108.4
29	323.0	62.8	89	381.9	74.2	49	440.8	85.7	09	499.6	97.1	69	558.5	108.6
30	323.9	63.0	90	382.8	74.4	50	441.7	85.9	10	500.6	97.3	70	559.5	108.8
331	324.9	63.2	391	383.8	74.6	451	442.7	86.1	511	501.6	97.5	571	560.5	109.0
32	325.9	63.3	92	384.8	74.8	52	443.7	86.2	12	502.6	97.7	72	561.5	109.1
33	326.9	63.5	93	385.8	75.0	53	444.7	86.4	13	503.6	97.9	73	562.5	109.3
34	327.9	63.7	94	386.8	75.2	54	445.7	86.6	14	504.6	98.1	74	563.5	109.5
35	328.8	63.9	95	387.7	75.4	55	446.6	86.8	15	505.5	98.3	75	564.4	109.7
36	329.8	64.1	96	388.7	75.6	56	447.6	87.0	16	506.5	98.5	76	565.4	109.9
37	330.8	64.3	97	389.7	75.8	57	448.6	87.2	17	507.5	98.6	77	566.4	110.1
38	331.8	64.5	98	390.7	75.9	58	449.6	87.4	18	508.5	98.8	78	567.4	110.3
39	332.8	64.7	99	391.7	76.1	59	450.6	87.6	19	509.5	99.0	79	568.4	110.5
40	333.8	64.9	400	392.7	76.3	60	451.5	87.8	20	510.4	99.2	80	569.3	110.7
341	334.7	65.1	401	393.6	76.5	461	452.5	88.0	521	511.4	99.4	581	570.3	110.9
42	335.7	65.3	02	394.6	76.7	62	453.5	88.2	22	512.4	99.6	82	571.3	111.1
43	336.7	65.4	03	395.6	76.9	63	454.5	88.3	23	513.4	99.8	83	572.3	111.2
44	337.7	65.6	04	396.6	77.1	64	455.5	88.5	24	514.4	100.0	84	573.3	111.4
45	338.7	65.8	05	397.6	77.3	65	456.5	88.7	25	515.4	100.2	85	574.3	111.6
46	339.6	66.0	06	398.5	77.5	66	457.4	88.9	26	516.3	100.4	86	575.2	111.8
47	340.6	66.2	07	399.5	77.7	67	458.4	89.1	27	517.3	100.6	87	576.2	112.0
48	341.6	66.4	08	400.5	77.9	68	459.4	89.3	28	518.3	100.7	88	577.2	112.2
49	342.6	66.6	09	401.5	78.0	69	460.4	89.5	29	519.3	100.9	89	578.2	112.4
50	343.6	66.8	10	402.5	78.2	70	461.4	89.7	30	520.3	101.1	90	579.2	112.6
351	344.6	67.0	411	403.4	78.4	471	462.3	89.9	531	521.2	101.3	591	580.1	112.8
52	345.5	67.2	12	404.4	78.6	72	463.3	90.1	32	522.2	101.5	92	581.1	113.0
53	346.5	67.4	13	405.4	78.8	73	464.3	90.3	33	523.2	101.7	93	582.1	113.1
54	347.5	67.5	14	406.4	79.0	74	465.3	90.4	34	524.2	101.9	94	583.1	113.3
55	348.5	67.7	15	407.4	79.2	75	466.3	90.6	35	525.2	102.1	95	584.1	113.5
56	349.5	67.9	16	408.4	79.4	76	467.3	90.8	36	526.2	102.3	96	585.0	113.7
57	350.4	68.1	17	409.3	79.6	77	468.2	91.0	37	527.1	102.5	97	586.0	113.9
58	351.4	68.3	18	410.3	79.8	78	469.2	91.2	38	528.1	102.7	98	587.0	114.1
59	352.4	68.5	19	411.3	79.9	79	470.2	91.4	39	529.1	102.8	99	588.0	114.3
60	353.4	68.7	20	412.3	80.1	80	471.2	91.6	40	530.1	103.0	600	589.0	114.5
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

79°

281° | 079°
259° | 101°

TABLE 4

12° Traverse Table

348° / 192° | 012° / 168°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.2	61	59.7	12.7	121	118.4	25.2	181	177.0	37.6	241	235.7	50.1
2	2.0	0.4	62	60.6	12.9	22	119.3	25.4	82	178.0	37.8	42	236.7	50.3
3	2.9	0.6	63	61.6	13.1	23	120.3	25.6	83	179.0	38.0	43	237.7	50.5
4	3.9	0.8	64	62.6	13.3	24	121.3	25.8	84	180.0	38.3	44	238.7	50.7
5	4.9	1.0	65	63.6	13.5	25	122.3	26.0	85	181.0	38.5	45	239.6	50.9
6	5.9	1.2	66	64.6	13.7	26	123.2	26.2	86	181.9	38.7	46	240.6	51.1
7	6.8	1.5	67	65.5	13.9	27	124.2	26.4	87	182.9	38.9	47	241.6	51.4
8	7.8	1.7	68	66.5	14.1	28	125.2	26.6	88	183.9	39.1	48	242.6	51.6
9	8.8	1.9	69	67.5	14.3	29	126.2	26.8	89	184.9	39.3	49	243.6	51.8
10	9.8	2.1	70	68.5	14.6	30	127.2	27.0	90	185.8	39.5	50	244.5	52.0
11	10.8	2.3	71	69.4	14.8	131	128.1	27.2	191	186.8	39.7	251	245.5	52.2
12	11.7	2.5	72	70.4	15.0	32	129.1	27.4	92	187.8	39.9	52	246.5	52.4
13	12.7	2.7	73	71.4	15.2	33	130.1	27.7	93	188.8	40.1	53	247.5	52.6
14	13.7	2.9	74	72.4	15.4	34	131.1	27.9	94	189.8	40.3	54	248.4	52.8
15	14.7	3.1	75	73.4	15.6	35	132.0	28.1	95	190.7	40.5	55	249.4	53.0
16	15.7	3.3	76	74.3	15.8	36	133.0	28.3	96	191.7	40.8	56	250.4	53.2
17	16.6	3.5	77	75.3	16.0	37	134.0	28.5	97	192.7	41.0	57	251.4	53.4
18	17.6	3.7	78	76.3	16.2	38	135.0	28.7	98	193.7	41.2	58	252.4	53.6
19	18.6	4.0	79	77.3	16.4	39	136.0	28.9	99	194.7	41.4	59	253.3	53.8
20	19.6	4.2	80	78.3	16.6	40	136.9	29.1	200	195.6	41.6	60	254.3	54.1
21	20.5	4.4	81	79.2	16.8	141	137.9	29.3	201	196.6	41.8	261	255.3	54.3
22	21.5	4.6	82	80.2	17.0	42	138.9	29.5	02	197.6	42.0	62	256.3	54.5
23	22.5	4.8	83	81.2	17.3	43	139.9	29.7	03	198.6	42.2	63	257.3	54.7
24	23.5	5.0	84	82.2	17.5	44	140.9	29.9	04	199.5	42.4	64	258.2	54.9
25	24.5	5.2	85	83.1	17.7	45	141.8	30.1	05	200.5	42.6	65	259.2	55.1
26	25.4	5.4	86	84.1	17.9	46	142.8	30.4	06	201.5	42.8	66	260.2	55.3
27	26.4	5.6	87	85.1	18.1	47	143.8	30.6	07	202.5	43.0	67	261.2	55.5
28	27.4	5.8	88	86.1	18.3	48	144.8	30.8	08	203.5	43.2	68	262.1	55.7
29	28.4	6.0	89	87.1	18.5	49	145.7	31.0	09	204.4	43.5	69	263.1	55.9
30	29.3	6.2	90	88.0	18.7	50	146.7	31.2	10	205.4	43.7	70	264.1	56.1
31	30.3	6.4	91	89.0	18.9	151	147.7	31.4	211	206.4	43.9	271	265.1	56.3
32	31.3	6.7	92	90.0	19.1	52	148.7	31.6	12	207.4	44.1	72	266.1	56.6
33	32.3	6.9	93	91.0	19.3	53	149.7	31.8	13	208.3	44.3	73	267.0	56.8
34	33.3	7.1	94	91.9	19.5	54	150.6	32.0	14	209.3	44.5	74	268.0	57.0
35	34.2	7.3	95	92.9	19.8	55	151.6	32.2	15	210.3	44.7	75	269.0	57.2
36	35.2	7.5	96	93.9	20.0	56	152.6	32.4	16	211.3	44.9	76	270.0	57.4
37	36.2	7.7	97	94.9	20.2	57	153.6	32.6	17	212.3	45.1	77	270.9	57.6
38	37.2	7.9	98	95.9	20.4	58	154.5	32.9	18	213.2	45.3	78	271.9	57.8
39	38.1	8.1	99	96.8	20.6	59	155.5	33.1	19	214.2	45.5	79	272.9	58.0
40	39.1	8.3	100	97.8	20.8	60	156.5	33.3	20	215.2	45.7	80	273.9	58.2
41	40.1	8.5	101	98.8	21.0	161	157.5	33.5	221	216.2	45.9	281	274.9	58.4
42	41.1	8.7	02	99.8	21.2	62	158.5	33.7	22	217.1	46.2	82	275.8	58.6
43	42.1	8.9	03	100.7	21.4	63	159.4	33.9	23	218.1	46.4	83	276.8	58.8
44	43.0	9.1	04	101.7	21.6	64	160.4	34.1	24	219.1	46.6	84	277.8	59.0
45	44.0	9.4	05	102.7	21.8	65	161.4	34.3	25	220.1	46.8	85	278.8	59.3
46	45.0	9.6	06	103.7	22.0	66	162.4	34.5	26	221.1	47.0	86	279.8	59.5
47	46.0	9.8	07	104.7	22.2	67	163.4	34.7	27	222.0	47.2	87	280.7	59.7
48	47.0	10.0	08	105.6	22.5	68	164.3	34.9	28	223.0	47.4	88	281.7	59.9
49	47.9	10.2	09	106.6	22.7	69	165.3	35.1	29	224.0	47.6	89	282.7	60.1
50	48.9	10.4	10	107.6	22.9	70	166.3	35.3	30	225.0	47.8	90	283.7	60.3
51	49.9	10.6	111	108.6	23.1	171	167.3	35.6	231	226.0	48.0	291	284.6	60.5
52	50.9	10.8	12	109.6	23.3	72	168.2	35.8	32	226.9	48.2	92	285.6	60.7
53	51.8	11.0	13	110.5	23.5	73	169.2	36.0	33	227.9	48.4	93	286.6	60.9
54	52.8	11.2	14	111.5	23.7	74	170.2	36.2	34	228.9	48.7	94	287.6	61.1
55	53.8	11.4	15	112.5	23.9	75	171.2	36.4	35	229.9	48.9	95	288.6	61.3
56	54.8	11.6	16	113.5	24.1	76	172.2	36.6	36	230.8	49.1	96	289.5	61.5
57	55.8	11.9	17	114.4	24.3	77	173.1	36.8	37	231.8	49.3	97	290.5	61.7
58	56.7	12.1	18	115.4	24.5	78	174.1	37.0	38	232.8	49.5	98	291.5	62.0
59	57.7	12.3	19	116.4	24.7	79	175.1	37.2	39	233.8	49.7	99	292.5	62.2
60	58.7	12.5	20	117.4	24.9	80	176.1	37.4	40	234.8	49.9	300	293.4	62.4
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

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Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

12° Traverse Table

348° / 192° | 012° / 168°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	294.4	62.6	361	353.1	75.1	421	411.8	87.5	481	470.5	100.0	541	529.2	112.5
02	295.4	62.8	62	354.1	75.3	22	412.8	87.7	82	471.5	100.2	42	530.2	112.7
03	296.4	63.0	63	355.1	75.5	23	413.8	87.9	83	472.4	100.4	43	531.1	112.9
04	297.4	63.2	64	356.0	75.7	24	414.7	88.2	84	473.4	100.6	44	532.1	113.1
05	298.3	63.4	65	357.0	75.9	25	415.7	88.4	85	474.4	100.8	45	533.1	113.3
06	299.3	63.6	66	358.0	76.1	26	416.7	88.6	86	475.4	101.0	46	534.1	113.5
07	300.3	63.8	67	359.0	76.3	27	417.7	88.8	87	476.4	101.3	47	535.0	113.7
08	301.3	64.0	68	360.0	76.5	28	418.6	89.0	88	477.3	101.5	48	536.0	113.9
09	302.2	64.2	69	360.9	76.7	29	419.6	89.2	89	478.3	101.7	49	537.0	114.1
10	303.2	64.5	70	361.9	76.9	30	420.6	89.4	90	479.3	101.9	50	538.0	114.4
311	304.2	64.7	371	362.9	77.1	431	421.6	89.6	491	480.3	102.1	551	539.0	114.6
12	305.2	64.9	72	363.9	77.3	32	422.6	89.8	92	481.2	102.3	52	539.9	114.8
13	306.2	65.1	73	364.8	77.6	33	423.5	90.0	93	482.2	102.5	53	540.9	115.0
14	307.1	65.3	74	365.8	77.8	34	424.5	90.2	94	483.2	102.7	54	541.9	115.2
15	308.1	65.5	75	366.8	78.0	35	425.5	90.4	95	484.2	102.9	55	542.9	115.4
16	309.1	65.7	76	367.8	78.2	36	426.5	90.6	96	485.2	103.1	56	543.9	115.6
17	310.1	65.9	77	368.8	78.4	37	427.5	90.9	97	486.1	103.3	57	544.8	115.8
18	311.1	66.1	78	369.7	78.6	38	428.4	91.1	98	487.1	103.5	58	545.8	116.0
19	312.0	66.3	79	370.7	78.8	39	429.4	91.3	99	488.1	103.7	59	546.8	116.2
20	313.0	66.5	80	371.7	79.0	40	430.4	91.5	500	489.1	104.0	60	547.8	116.4
321	314.0	66.7	381	372.7	79.2	441	431.4	91.7	501	490.1	104.2	561	548.7	116.6
22	315.0	66.9	82	373.7	79.4	42	432.3	91.9	02	491.0	104.4	62	549.7	116.8
23	315.9	67.2	83	374.6	79.6	43	433.3	92.1	03	492.0	104.6	63	550.7	117.1
24	316.9	67.4	84	375.6	79.8	44	434.3	92.3	04	493.0	104.8	64	551.7	117.3
25	317.9	67.6	85	376.6	80.0	45	435.3	92.5	05	494.0	105.0	65	552.7	117.5
26	318.9	67.8	86	377.6	80.3	46	436.3	92.7	06	494.9	105.2	66	553.6	117.7
27	319.9	68.0	87	378.5	80.5	47	437.2	92.9	07	495.9	105.4	67	554.6	117.9
28	320.8	68.2	88	379.5	80.7	48	438.2	93.1	08	496.9	105.6	68	555.6	118.1
29	321.8	68.4	89	380.5	80.9	49	439.2	93.4	09	497.9	105.8	69	556.6	118.3
30	322.8	68.6	90	381.5	81.1	50	440.2	93.6	10	498.9	106.0	70	557.5	118.5
331	323.8	68.8	391	382.5	81.3	451	441.1	93.8	511	499.8	106.2	571	558.5	118.7
32	324.7	69.0	92	383.4	81.5	52	442.1	94.0	12	500.8	106.5	72	559.5	118.9
33	325.7	69.2	93	384.4	81.7	53	443.1	94.2	13	501.8	106.7	73	560.5	119.1
34	326.7	69.4	94	385.4	81.9	54	444.1	94.4	14	502.8	106.9	74	561.5	119.3
35	327.7	69.7	95	386.4	82.1	55	445.1	94.6	15	503.7	107.1	75	562.4	119.5
36	328.7	69.9	96	387.3	82.3	56	446.0	94.8	16	504.7	107.3	76	563.4	119.8
37	329.6	70.1	97	388.3	82.5	57	447.0	95.0	17	505.7	107.5	77	564.4	120.0
38	330.6	70.3	98	389.3	82.7	58	448.0	95.2	18	506.7	107.7	78	565.4	120.2
39	331.6	70.5	99	390.3	83.0	59	449.0	95.4	19	507.7	107.9	79	566.3	120.4
40	332.6	70.7	400	391.3	83.2	60	449.9	95.6	20	508.6	108.1	80	567.3	120.6
341	333.5	70.9	401	392.2	83.4	461	450.9	95.8	521	509.6	108.3	581	568.3	120.8
42	334.5	71.1	02	393.2	83.6	62	451.9	96.1	22	510.6	108.5	82	569.3	121.0
43	335.5	71.3	03	394.2	83.8	63	452.9	96.3	23	511.6	108.7	83	570.3	121.2
44	336.5	71.5	04	395.2	84.0	64	453.9	96.5	24	512.5	108.9	84	571.2	121.4
45	337.5	71.7	05	396.1	84.2	65	454.8	96.7	25	513.5	109.2	85	572.2	121.6
46	338.4	71.9	06	397.1	84.4	66	455.8	96.9	26	514.5	109.4	86	573.2	121.8
47	339.4	72.1	07	398.1	84.6	67	456.8	97.1	27	515.5	109.6	87	574.2	122.0
48	340.4	72.4	08	399.1	84.8	68	457.8	97.3	28	516.5	109.8	88	575.2	122.3
49	341.4	72.6	09	400.1	85.0	69	458.8	97.5	29	517.4	110.0	89	576.1	122.5
50	342.4	72.8	10	401.0	85.2	70	459.7	97.7	30	518.4	110.2	90	577.1	122.7
351	343.3	73.0	411	402.0	85.5	471	460.7	97.9	531	519.4	110.4	591	578.1	122.9
52	344.3	73.2	12	403.0	85.7	72	461.7	98.1	32	520.4	110.6	92	579.1	123.1
53	345.3	73.4	13	404.0	85.9	73	462.7	98.3	33	521.4	110.8	93	580.0	123.3
54	346.3	73.6	14	405.0	86.1	74	463.6	98.6	34	522.3	111.0	94	581.0	123.5
55	347.2	73.8	15	405.9	86.3	75	464.6	98.8	35	523.3	111.2	95	582.0	123.7
56	348.2	74.0	16	406.9	86.5	76	465.6	99.0	36	524.3	111.4	96	583.0	123.9
57	349.2	74.2	17	407.9	86.7	77	466.6	99.2	37	525.3	111.6	97	584.0	124.1
58	350.2	74.4	18	408.9	86.9	78	467.6	99.4	38	526.2	111.9	98	584.9	124.3
59	351.2	74.6	19	409.8	87.1	79	468.5	99.6	39	527.2	112.1	99	585.9	124.5
60	352.1	74.8	20	410.8	87.3	80	469.5	99.8	40	528.2	112.3	600	586.9	124.7
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

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Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

Traverse **13°** Table

347° / 193°	013° / 167°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.2	61	59.4	13.7	121	117.9	27.2	181	176.4	40.7	241	234.8	54.2
2	1.9	0.4	62	60.4	13.9	22	118.9	27.4	82	177.3	40.9	42	235.8	54.4
3	2.9	0.7	63	61.4	14.2	23	119.8	27.7	83	178.3	41.2	43	236.8	54.7
4	3.9	0.9	64	62.4	14.4	24	120.8	27.9	84	179.3	41.4	44	237.7	54.9
5	4.9	1.1	65	63.3	14.6	25	121.8	28.1	85	180.3	41.6	45	238.7	55.1
6	5.8	1.3	66	64.3	14.8	26	122.8	28.3	86	181.2	41.8	46	239.7	55.3
7	6.8	1.6	67	65.3	15.1	27	123.7	28.6	87	182.2	42.1	47	240.7	55.6
8	7.8	1.8	68	66.3	15.3	28	124.7	28.8	88	183.2	42.3	48	241.6	55.8
9	8.8	2.0	69	67.2	15.5	29	125.7	29.0	89	184.2	42.5	49	242.6	56.0
10	9.7	2.2	70	68.2	15.7	30	126.7	29.2	90	185.1	42.7	50	243.6	56.2
11	10.7	2.5	71	69.2	16.0	131	127.6	29.5	191	186.1	43.0	251	244.6	56.5
12	11.7	2.7	72	70.2	16.2	32	128.6	29.7	92	187.1	43.2	52	245.5	56.7
13	12.7	2.9	73	71.1	16.4	33	129.6	29.9	93	188.1	43.4	53	246.5	56.9
14	13.6	3.1	74	72.1	16.6	34	130.6	30.1	94	189.0	43.6	54	247.5	57.1
15	14.6	3.4	75	73.1	16.9	35	131.5	30.4	95	190.0	43.9	55	248.5	57.4
16	15.6	3.6	76	74.1	17.1	36	132.5	30.6	96	191.0	44.1	56	249.4	57.6
17	16.6	3.8	77	75.0	17.3	37	133.5	30.8	97	192.0	44.3	57	250.4	57.8
18	17.5	4.0	78	76.0	17.5	38	134.5	31.0	98	192.9	44.5	58	251.4	58.0
19	18.5	4.3	79	77.0	17.8	39	135.4	31.3	99	193.9	44.8	59	252.4	58.3
20	19.5	4.5	80	77.9	18.0	40	136.4	31.5	200	194.9	45.0	60	253.3	58.5
21	20.5	4.7	81	78.9	18.2	141	137.4	31.7	201	195.8	45.2	261	254.3	58.7
22	21.4	4.9	82	79.9	18.4	42	138.4	31.9	02	196.8	45.4	62	255.3	58.9
23	22.4	5.2	83	80.9	18.7	43	139.3	32.2	03	197.8	45.7	63	256.3	59.2
24	23.4	5.4	84	81.8	18.9	44	140.3	32.4	04	198.8	45.9	64	257.2	59.4
25	24.4	5.6	85	82.8	19.1	45	141.3	32.6	05	199.7	46.1	65	258.2	59.6
26	25.3	5.8	86	83.8	19.3	46	142.3	32.8	06	200.7	46.3	66	259.2	59.8
27	26.3	6.1	87	84.8	19.6	47	143.2	33.1	07	201.7	46.6	67	260.2	60.1
28	27.3	6.3	88	85.7	19.8	48	144.2	33.3	08	202.7	46.8	68	261.1	60.3
29	28.3	6.5	89	86.7	20.0	49	145.2	33.5	09	203.6	47.0	69	262.1	60.5
30	29.2	6.7	90	87.7	20.2	50	146.2	33.7	10	204.6	47.2	70	263.1	60.7
31	30.2	7.0	91	88.7	20.5	151	147.1	34.0	211	205.6	47.5	271	264.1	61.0
32	31.2	7.2	92	89.6	20.7	52	148.1	34.2	12	206.6	47.7	72	265.0	61.2
33	32.2	7.4	93	90.6	20.9	53	149.1	34.4	13	207.5	47.9	73	266.0	61.4
34	33.1	7.6	94	91.6	21.1	54	150.1	34.6	14	208.5	48.1	74	267.0	61.6
35	34.1	7.9	95	92.6	21.4	55	151.0	34.9	15	209.5	48.4	75	268.0	61.9
36	35.1	8.1	96	93.5	21.6	56	152.0	35.1	16	210.5	48.6	76	268.9	62.1
37	36.1	8.3	97	94.5	21.8	57	153.0	35.3	17	211.4	48.8	77	269.9	62.3
38	37.0	8.5	98	95.5	22.0	58	154.0	35.5	18	212.4	49.0	78	270.9	62.5
39	38.0	8.8	99	96.5	22.3	59	154.9	35.8	19	213.4	49.3	79	271.8	62.8
40	39.0	9.0	100	97.4	22.5	60	155.9	36.0	20	214.4	49.5	80	272.8	63.0
41	39.9	9.2	101	98.4	22.7	161	156.9	36.2	221	215.3	49.7	281	273.8	63.2
42	40.9	9.4	02	99.4	22.9	62	157.8	36.4	22	216.3	49.9	82	274.8	63.4
43	41.9	9.7	03	100.4	23.2	63	158.8	36.7	23	217.3	50.2	83	275.7	63.7
44	42.9	9.9	04	101.3	23.4	64	159.8	36.9	24	218.3	50.4	84	276.7	63.9
45	43.8	10.1	05	102.3	23.6	65	160.8	37.1	25	219.2	50.6	85	277.7	64.1
46	44.8	10.3	06	103.3	23.8	66	161.7	37.3	26	220.2	50.8	86	278.7	64.3
47	45.8	10.6	07	104.3	24.1	67	162.7	37.6	27	221.2	51.1	87	279.6	64.6
48	46.8	10.8	08	105.2	24.3	68	163.7	37.8	28	222.2	51.3	88	280.6	64.8
49	47.7	11.0	09	106.2	24.5	69	164.7	38.0	29	223.1	51.5	89	281.6	65.0
50	48.7	11.2	10	107.2	24.7	70	165.6	38.2	30	224.1	51.7	90	282.6	65.2
51	49.7	11.5	111	108.2	25.0	171	166.6	38.5	231	225.1	52.0	291	283.5	65.5
52	50.7	11.7	12	109.1	25.2	72	167.6	38.7	32	226.1	52.2	92	284.5	65.7
53	51.6	11.9	13	110.1	25.4	73	168.6	38.9	33	227.0	52.4	93	285.5	65.9
54	52.6	12.1	14	111.1	25.6	74	169.5	39.1	34	228.0	52.6	94	286.5	66.1
55	53.6	12.4	15	112.1	25.9	75	170.5	39.4	35	229.0	52.9	95	287.4	66.4
56	54.6	12.6	16	113.0	26.1	76	171.5	39.6	36	230.0	53.1	96	288.4	66.6
57	55.5	12.8	17	114.0	26.3	77	172.5	39.8	37	230.9	53.3	97	289.4	66.8
58	56.5	13.0	18	115.0	26.5	78	173.4	40.0	38	231.9	53.5	98	290.4	67.0
59	57.5	13.3	19	116.0	26.8	79	174.4	40.3	39	232.9	53.8	99	291.3	67.3
60	58.5	13.5	20	116.9	27.0	80	175.4	40.5	40	233.8	54.0	300	292.3	67.5
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

283° / 257°	077° / 103°

77°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

Traverse **13°** Table

347° / 193°	013° / 167°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	293.3	67.7	361	351.7	81.2	421	410.2	94.7	481	468.7	108.2	541	527.1	121.7
02	294.3	67.9	62	352.7	81.4	22	411.2	94.9	82	469.6	108.4	42	528.1	121.9
03	295.2	68.2	63	353.7	81.7	23	412.2	95.2	83	470.6	108.7	43	529.1	122.1
04	296.2	68.4	64	354.7	81.9	24	413.1	95.4	84	471.6	108.9	44	530.1	122.4
05	297.2	68.6	65	355.6	82.1	25	414.1	95.6	85	472.6	109.1	45	531.0	122.6
06	298.2	68.8	66	356.6	82.3	26	415.1	95.8	86	473.5	109.3	46	532.0	122.8
07	299.1	69.1	67	357.6	82.6	27	416.1	96.1	87	474.5	109.6	47	533.0	123.0
08	300.1	69.3	68	358.6	82.8	28	417.0	96.3	88	475.5	109.8	48	534.0	123.3
09	301.1	69.5	69	359.5	83.0	29	418.0	96.5	89	476.5	110.0	49	534.9	123.5
10	302.1	69.7	70	360.5	83.2	30	419.0	96.7	90	477.4	110.2	50	535.9	123.7
311	303.0	70.0	371	361.5	83.5	431	420.0	97.0	491	478.4	110.5	551	536.9	123.9
12	304.0	70.2	72	362.5	83.7	32	420.9	97.2	92	479.4	110.7	52	537.9	124.2
13	305.0	70.4	73	363.4	83.9	33	421.9	97.4	93	480.4	110.9	53	538.8	124.4
14	306.0	70.6	74	364.4	84.1	34	422.9	97.6	94	481.3	111.1	54	539.8	124.6
15	306.9	70.9	75	365.4	84.4	35	423.9	97.9	95	482.3	111.4	55	540.8	124.8
16	307.9	71.1	76	366.4	84.6	36	424.8	98.1	96	483.3	111.6	56	541.7	125.1
17	308.9	71.3	77	367.3	84.8	37	425.8	98.3	97	484.3	111.8	57	542.7	125.3
18	309.8	71.5	78	368.3	85.0	38	426.8	98.5	98	485.2	112.0	58	543.7	125.5
19	310.8	71.8	79	369.3	85.3	39	427.7	98.8	99	486.2	112.3	59	544.7	125.7
20	311.8	72.0	80	370.3	85.5	40	428.7	99.0	500	487.2	112.5	60	545.6	126.0
321	312.8	72.2	381	371.2	85.7	441	429.7	99.2	501	488.2	112.7	561	546.6	126.2
22	313.7	72.4	82	372.2	85.9	42	430.7	99.4	02	489.1	112.9	62	547.6	126.4
23	314.7	72.7	83	373.2	86.2	43	431.6	99.7	03	490.1	113.2	63	548.6	126.6
24	315.7	72.9	84	374.2	86.4	44	432.6	99.9	04	491.1	113.4	64	549.5	126.9
25	316.7	73.1	85	375.1	86.6	45	433.6	100.1	05	492.1	113.6	65	550.5	127.1
26	317.6	73.3	86	376.1	86.8	46	434.6	100.3	06	493.0	113.8	66	551.5	127.3
27	318.6	73.6	87	377.1	87.1	47	435.5	100.6	07	494.0	114.1	67	552.5	127.5
28	319.6	73.8	88	378.1	87.3	48	436.5	100.8	08	495.0	114.3	68	553.4	127.8
29	320.6	74.0	89	379.0	87.5	49	437.5	101.0	09	496.0	114.5	69	554.4	128.0
30	321.5	74.2	90	380.0	87.7	50	438.5	101.2	10	496.9	114.7	70	555.4	128.2
331	322.5	74.5	391	381.0	88.0	451	439.4	101.5	511	497.9	114.9	571	556.4	128.4
32	323.5	74.7	92	382.0	88.2	52	440.4	101.7	12	498.9	115.2	72	557.3	128.7
33	324.5	74.9	93	382.9	88.4	53	441.4	101.9	13	499.9	115.4	73	558.3	128.9
34	325.4	75.1	94	383.9	88.6	54	442.4	102.1	14	500.8	115.6	74	559.3	129.1
35	326.4	75.4	95	384.9	88.9	55	443.3	102.4	15	501.8	115.8	75	560.3	129.3
36	327.4	75.6	96	385.9	89.1	56	444.3	102.6	16	502.8	116.1	76	561.2	129.6
37	328.4	75.8	97	386.8	89.3	57	445.3	102.8	17	503.7	116.3	77	562.2	129.8
38	329.3	76.0	98	387.8	89.5	58	446.3	103.0	18	504.7	116.5	78	563.2	130.0
39	330.3	76.3	99	388.8	89.8	59	447.2	103.3	19	505.7	116.7	79	564.2	130.2
40	331.3	76.5	400	389.7	90.0	60	448.2	103.5	20	506.7	117.0	80	565.1	130.5
341	332.3	76.7	401	390.7	90.2	461	449.2	103.7	521	507.6	117.2	581	566.1	130.7
42	333.2	76.9	02	391.7	90.4	62	450.2	103.9	22	508.6	117.4	82	567.1	130.9
43	334.2	77.2	03	392.7	90.7	63	451.1	104.2	23	509.6	117.6	83	568.1	131.1
44	335.2	77.4	04	393.6	90.9	64	452.1	104.4	24	510.6	117.9	84	569.0	131.4
45	336.2	77.6	05	394.6	91.1	65	453.1	104.6	25	511.5	118.1	85	570.0	131.6
46	337.1	77.8	06	395.6	91.3	66	454.1	104.8	26	512.5	118.3	86	571.0	131.8
47	338.1	78.1	07	396.6	91.6	67	455.0	105.1	27	513.5	118.5	87	572.0	132.0
48	339.1	78.3	08	397.5	91.8	68	456.0	105.3	28	514.5	118.8	88	572.9	132.3
49	340.1	78.5	09	398.5	92.0	69	457.0	105.5	29	515.4	119.0	89	573.9	132.5
50	341.0	78.7	10	399.5	92.2	70	458.0	105.7	30	516.4	119.2	90	574.9	132.7
351	342.0	79.0	411	400.5	92.5	471	458.9	106.0	531	517.4	119.4	591	575.9	132.9
52	343.0	79.2	12	401.4	92.7	72	459.9	106.2	32	518.4	119.7	92	576.8	133.2
53	344.0	79.4	13	402.4	92.9	73	460.9	106.4	33	519.3	119.9	93	577.8	133.4
54	344.9	79.6	14	403.4	93.1	74	461.9	106.6	34	520.3	120.1	94	578.8	133.6
55	345.9	79.9	15	404.4	93.4	75	462.8	106.9	35	521.3	120.3	95	579.8	133.8
56	346.9	80.1	16	405.3	93.6	76	463.8	107.1	36	522.3	120.6	96	580.7	134.1
57	347.9	80.3	17	406.3	93.8	77	464.8	107.3	37	523.2	120.8	97	581.7	134.3
58	348.8	80.5	18	407.3	94.0	78	465.7	107.5	38	524.2	121.0	98	582.7	134.5
59	349.8	80.8	19	408.3	94.3	79	466.7	107.8	39	525.2	121.2	99	583.6	134.7
60	350.8	81.0	20	409.2	94.5	80	467.7	108.0	40	526.2	121.5	600	584.6	135.0
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

283° / 257°	077° / 103°

77°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

14° Traverse Table

346° / 194° | 014° / 166°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.2	61	59.2	14.8	121	117.4	29.3	181	175.6	43.8	241	233.8	58.3
2	1.9	0.5	62	60.2	15.0	22	118.4	29.5	82	176.6	44.0	42	234.8	58.5
3	2.9	0.7	63	61.1	15.2	23	119.3	29.8	83	177.6	44.3	43	235.8	58.8
4	3.9	1.0	64	62.1	15.5	24	120.3	30.0	84	178.5	44.5	44	236.8	59.0
5	4.9	1.2	65	63.1	15.7	25	121.3	30.2	85	179.5	44.8	45	237.7	59.3
6	5.8	1.5	66	64.0	16.0	26	122.3	30.5	86	180.5	45.0	46	238.7	59.5
7	6.8	1.7	67	65.0	16.2	27	123.2	30.7	87	181.4	45.2	47	239.7	59.8
8	7.8	1.9	68	66.0	16.5	28	124.2	31.0	88	182.4	45.5	48	240.6	60.0
9	8.7	2.2	69	67.0	16.7	29	125.2	31.2	89	183.4	45.7	49	241.6	60.2
10	9.7	2.4	70	67.9	16.9	30	126.1	31.4	90	184.4	46.0	50	242.6	60.5
11	10.7	2.7	71	68.9	17.2	131	127.1	31.7	191	185.3	46.2	251	243.5	60.7
12	11.6	2.9	72	69.9	17.4	32	128.1	31.9	92	186.3	46.4	52	244.5	61.0
13	12.6	3.1	73	70.8	17.7	33	129.0	32.2	93	187.3	46.7	53	245.5	61.2
14	13.6	3.4	74	71.8	17.9	34	130.0	32.4	94	188.2	46.9	54	246.5	61.4
15	14.6	3.6	75	72.8	18.1	35	131.0	32.7	95	189.2	47.2	55	247.4	61.7
16	15.5	3.9	76	73.7	18.4	36	132.0	32.9	96	190.2	47.4	56	248.4	61.9
17	16.5	4.1	77	74.7	18.6	37	132.9	33.1	97	191.1	47.7	57	249.4	62.2
18	17.5	4.4	78	75.7	18.9	38	133.9	33.4	98	192.1	47.9	58	250.3	62.4
19	18.4	4.6	79	76.7	19.1	39	134.9	33.6	99	193.1	48.1	59	251.3	62.7
20	19.4	4.8	80	77.6	19.4	40	135.8	33.9	200	194.1	48.4	60	252.3	62.9
21	20.4	5.1	81	78.6	19.6	141	136.8	34.1	201	195.0	48.6	261	253.2	63.1
22	21.3	5.3	82	79.6	19.8	42	137.8	34.4	02	196.0	48.9	62	254.2	63.4
23	22.3	5.6	83	80.5	20.1	43	138.8	34.6	03	197.0	49.1	63	255.2	63.6
24	23.3	5.8	84	81.5	20.3	44	139.7	34.8	04	197.9	49.4	64	256.2	63.9
25	24.3	6.0	85	82.5	20.6	45	140.7	35.1	05	198.9	49.6	65	257.1	64.1
26	25.2	6.3	86	83.4	20.8	46	141.7	35.3	06	199.9	49.8	66	258.1	64.4
27	26.2	6.5	87	84.4	21.0	47	142.6	35.6	07	200.9	50.1	67	259.1	64.6
28	27.2	6.8	88	85.4	21.3	48	143.6	35.8	08	201.8	50.3	68	260.0	64.8
29	28.1	7.0	89	86.4	21.5	49	144.6	36.0	09	202.8	50.6	69	261.0	65.1
30	29.1	7.3	90	87.3	21.8	50	145.5	36.3	10	203.8	50.8	70	262.0	65.3
31	30.1	7.5	91	88.3	22.0	151	146.5	36.5	211	204.7	51.0	271	263.0	65.6
32	31.0	7.7	92	89.3	22.3	52	147.5	36.8	12	205.7	51.3	72	263.9	65.8
33	32.0	8.0	93	90.2	22.5	53	148.5	37.0	13	206.7	51.5	73	264.9	66.0
34	33.0	8.2	94	91.2	22.7	54	149.4	37.3	14	207.6	51.8	74	265.9	66.3
35	34.0	8.5	95	92.2	23.0	55	150.4	37.5	15	208.6	52.0	75	266.8	66.5
36	34.9	8.7	96	93.1	23.2	56	151.4	37.7	16	209.6	52.3	76	267.8	66.8
37	35.9	9.0	97	94.1	23.5	57	152.3	38.0	17	210.6	52.5	77	268.8	67.0
38	36.9	9.2	98	95.1	23.7	58	153.3	38.2	18	211.5	52.7	78	269.7	67.3
39	37.8	9.4	99	96.1	24.0	59	154.3	38.5	19	212.5	53.0	79	270.7	67.5
40	38.8	9.7	100	97.0	24.2	60	155.2	38.7	20	213.5	53.2	80	271.7	67.7
41	39.8	9.9	101	98.0	24.4	161	156.2	38.9	221	214.4	53.5	281	272.7	68.0
42	40.8	10.2	02	99.0	24.7	62	157.2	39.2	22	215.4	53.7	82	273.6	68.2
43	41.7	10.4	03	99.9	24.9	63	158.2	39.4	23	216.4	53.9	83	274.6	68.5
44	42.7	10.6	04	100.9	25.2	64	159.1	39.7	24	217.3	54.2	84	275.6	68.7
45	43.7	10.9	05	101.9	25.4	65	160.1	39.9	25	218.3	54.4	85	276.5	68.9
46	44.6	11.1	06	102.9	25.6	66	161.1	40.2	26	219.3	54.7	86	277.5	69.2
47	45.6	11.4	07	103.8	25.9	67	162.0	40.4	27	220.3	54.9	87	278.5	69.4
48	46.6	11.6	08	104.8	26.1	68	163.0	40.6	28	221.2	55.2	88	279.4	69.7
49	47.5	11.9	09	105.8	26.4	69	164.0	40.9	29	222.2	55.4	89	280.4	69.9
50	48.5	12.1	10	106.7	26.6	70	165.0	41.1	30	223.2	55.6	90	281.4	70.2
51	49.5	12.3	111	107.7	26.9	171	165.9	41.4	231	224.1	55.9	291	282.4	70.4
52	50.5	12.6	12	108.7	27.1	72	166.9	41.6	32	225.1	56.1	92	283.3	70.6
53	51.4	12.8	13	109.6	27.3	73	167.9	41.9	33	226.1	56.4	93	284.3	70.9
54	52.4	13.1	14	110.6	27.6	74	168.8	42.1	34	227.0	56.6	94	285.3	71.1
55	53.4	13.3	15	111.6	27.8	75	169.8	42.3	35	228.0	56.9	95	286.2	71.4
56	54.3	13.5	16	112.6	28.1	76	170.8	42.6	36	229.0	57.1	96	287.2	71.6
57	55.3	13.8	17	113.5	28.3	77	171.7	42.8	37	230.0	57.3	97	288.2	71.9
58	56.3	14.0	18	114.5	28.5	78	172.7	43.1	38	230.9	57.6	98	289.1	72.1
59	57.2	14.3	19	115.5	28.8	79	173.7	43.3	39	231.9	57.8	99	290.1	72.3
60	58.2	14.5	20	116.4	29.0	80	174.7	43.5	40	232.9	58.1	300	291.1	72.6
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

284° / 256° | 076° / 104°

76°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

14° Traverse Table

346° / 194° | 014° / 166°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	292.1	72.8	361	350.3	87.3	421	408.5	101.8	481	466.7	116.4	541	524.9	130.9
02	293.0	73.1	62	351.2	87.6	22	409.5	102.1	82	467.7	116.6	42	525.9	131.1
03	294.0	73.3	63	352.2	87.8	23	410.4	102.3	83	468.7	116.8	43	526.9	131.4
04	295.0	73.5	64	353.2	88.1	24	411.4	102.6	84	469.6	117.1	44	527.8	131.6
05	295.9	73.8	65	354.2	88.3	25	412.4	102.8	85	470.6	117.3	45	528.8	131.8
06	296.9	74.0	66	355.1	88.5	26	413.3	103.1	86	471.6	117.6	46	529.8	132.1
07	297.9	74.3	67	356.1	88.8	27	414.3	103.3	87	472.5	117.8	47	530.8	132.3
08	298.9	74.5	68	357.1	89.0	28	415.3	103.5	88	473.5	118.1	48	531.7	132.6
09	299.8	74.8	69	358.0	89.3	29	416.3	103.8	89	474.5	118.3	49	532.7	132.8
10	300.8	75.0	70	359.0	89.5	30	417.2	104.0	90	475.4	118.5	50	533.7	133.1
311	301.8	75.2	371	360.0	89.8	431	418.2	104.3	491	476.4	118.8	551	534.6	133.3
12	302.7	75.5	72	361.0	90.0	32	419.2	104.5	92	477.4	119.0	52	535.6	133.5
13	303.7	75.7	73	361.9	90.2	33	420.1	104.8	93	478.4	119.3	53	536.6	133.8
14	304.7	76.0	74	362.9	90.5	34	421.1	105.0	94	479.3	119.5	54	537.5	134.0
15	305.6	76.2	75	363.9	90.7	35	422.1	105.2	95	480.3	119.8	55	538.5	134.3
16	306.6	76.4	76	364.8	91.0	36	423.0	105.5	96	481.3	120.0	56	539.5	134.5
17	307.6	76.7	77	365.8	91.2	37	424.0	105.7	97	482.2	120.2	57	540.5	134.8
18	308.6	76.9	78	366.8	91.4	38	425.0	106.0	98	483.2	120.5	58	541.4	135.0
19	309.5	77.2	79	367.7	91.7	39	426.0	106.2	99	484.2	120.7	59	542.4	135.2
20	310.5	77.4	80	368.7	91.9	40	426.9	106.4	500	485.1	121.0	60	543.4	135.5
321	311.5	77.7	381	369.7	92.2	441	427.9	106.7	501	486.1	121.2	561	544.3	135.7
22	312.4	77.9	82	370.7	92.4	42	428.9	106.9	02	487.1	121.4	62	545.3	136.0
23	313.4	78.1	83	371.6	92.7	43	429.8	107.2	03	488.1	121.7	63	546.3	136.2
24	314.4	78.4	84	372.6	92.9	44	430.8	107.4	04	489.0	121.9	64	547.2	136.4
25	315.3	78.6	85	373.6	93.1	45	431.8	107.7	05	490.0	122.2	65	548.2	136.7
26	316.3	78.9	86	374.5	93.4	46	432.8	107.9	06	491.0	122.4	66	549.2	136.9
27	317.3	79.1	87	375.5	93.6	47	433.7	108.1	07	491.9	122.7	67	550.2	137.2
28	318.3	79.4	88	376.5	93.9	48	434.7	108.4	08	492.9	122.9	68	551.1	137.4
29	319.2	79.6	89	377.4	94.1	49	435.7	108.6	09	493.9	123.1	69	552.1	137.7
30	320.2	79.8	90	378.4	94.3	50	436.6	108.9	10	494.9	123.4	70	553.1	137.9
331	321.2	80.1	391	379.4	94.6	451	437.6	109.1	511	495.8	123.6	571	554.0	138.1
32	322.1	80.3	92	380.4	94.8	52	438.6	109.3	12	496.8	123.9	72	555.0	138.4
33	323.1	80.6	93	381.3	95.1	53	439.5	109.6	13	497.8	124.1	73	556.0	138.6
34	324.1	80.8	94	382.3	95.3	54	440.5	109.8	14	498.7	124.3	74	556.9	138.9
35	325.0	81.0	95	383.3	95.6	55	441.5	110.1	15	499.7	124.6	75	557.9	139.1
36	326.0	81.3	96	384.2	95.8	56	442.5	110.3	16	500.7	124.8	76	558.9	139.3
37	327.0	81.5	97	385.2	96.0	57	443.4	110.6	17	501.6	125.1	77	559.9	139.6
38	328.0	81.8	98	386.2	96.3	58	444.4	110.8	18	502.6	125.3	78	560.8	139.8
39	328.9	82.0	99	387.1	96.5	59	445.4	111.0	19	503.6	125.6	79	561.8	140.1
40	329.9	82.3	400	388.1	96.8	60	446.3	111.3	20	504.6	125.8	80	562.8	140.3
341	330.9	82.5	401	389.1	97.0	461	447.3	111.5	521	505.5	126.0	581	563.7	140.6
42	331.8	82.7	02	390.1	97.3	62	448.3	111.8	22	506.5	126.3	82	564.7	140.8
43	332.8	83.0	03	391.0	97.5	63	449.2	112.0	23	507.5	126.5	83	565.7	141.0
44	333.8	83.2	04	392.0	97.7	64	450.2	112.3	24	508.4	126.8	84	566.7	141.3
45	334.8	83.5	05	393.0	98.0	65	451.2	112.5	25	509.4	127.0	85	567.6	141.5
46	335.7	83.7	06	393.9	98.2	66	452.2	112.7	26	510.4	127.3	86	568.6	141.8
47	336.7	83.9	07	394.9	98.5	67	453.1	113.0	27	511.3	127.5	87	569.6	142.0
48	337.7	84.2	08	395.9	98.7	68	454.1	113.2	28	512.3	127.7	88	570.5	142.3
49	338.6	84.4	09	396.9	98.9	69	455.1	113.5	29	513.3	128.0	89	571.5	142.5
50	339.6	84.7	10	397.8	99.2	70	456.0	113.7	30	514.3	128.2	90	572.5	142.7
351	340.6	84.9	411	398.8	99.4	471	457.0	113.9	531	515.2	128.5	591	573.4	143.0
52	341.5	85.2	12	399.8	99.7	72	458.0	114.2	32	516.2	128.7	92	574.4	143.2
53	342.5	85.4	13	400.7	99.9	73	458.9	114.4	33	517.2	128.9	93	575.4	143.5
54	343.5	85.6	14	401.7	100.2	74	459.9	114.7	34	518.1	129.2	94	576.4	143.7
55	344.5	85.9	15	402.7	100.4	75	460.9	114.9	35	519.1	129.4	95	577.3	143.9
56	345.4	86.1	16	403.6	100.6	76	461.9	115.2	36	520.1	129.7	96	578.3	144.2
57	346.4	86.4	17	404.6	100.9	77	462.8	115.4	37	521.0	129.9	97	579.3	144.4
58	347.4	86.6	18	405.6	101.1	78	463.8	115.6	38	522.0	130.2	98	580.2	144.7
59	348.3	86.8	19	406.6	101.4	79	464.8	115.9	39	523.0	130.4	99	581.2	144.9
60	349.3	87.1	20	407.5	101.6	80	465.7	116.1	40	524.0	130.6	600	582.2	145.2
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

284° / 256° | 076° / 104°

76°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

Traverse Table — 15°

345° / 195° | 015° / 165°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.3	61	58.9	15.8	121	116.9	31.3	181	174.8	46.8	241	232.8	62.4
2	1.9	0.5	62	59.9	16.0	22	117.8	31.6	82	175.8	47.1	42	233.8	62.6
3	2.9	0.8	63	60.9	16.3	23	118.8	31.8	83	176.8	47.4	43	234.7	62.9
4	3.9	1.0	64	61.8	16.6	24	119.8	32.1	84	177.7	47.6	44	235.7	63.2
5	4.8	1.3	65	62.8	16.8	25	120.7	32.4	85	178.7	47.9	45	236.7	63.4
6	5.8	1.6	66	63.8	17.1	26	121.7	32.6	86	179.7	48.1	46	237.6	63.7
7	6.8	1.8	67	64.7	17.3	27	122.7	32.9	87	180.6	48.4	47	238.6	63.9
8	7.7	2.1	68	65.7	17.6	28	123.6	33.1	88	181.6	48.7	48	239.5	64.2
9	8.7	2.3	69	66.6	17.9	29	124.6	33.4	89	182.6	48.9	49	240.5	64.4
10	9.7	2.6	70	67.6	18.1	30	125.6	33.6	90	183.5	49.2	50	241.5	64.7
11	10.6	2.8	71	68.6	18.4	131	126.5	33.9	191	184.5	49.4	251	242.4	65.0
12	11.6	3.1	72	69.5	18.6	32	127.5	34.2	92	185.5	49.7	52	243.4	65.2
13	12.6	3.4	73	70.5	18.9	33	128.5	34.4	93	186.4	50.0	53	244.4	65.5
14	13.5	3.6	74	71.5	19.2	34	129.4	34.7	94	187.4	50.2	54	245.3	65.7
15	14.5	3.9	75	72.4	19.4	35	130.4	34.9	95	188.4	50.5	55	246.3	66.0
16	15.5	4.1	76	73.4	19.7	36	131.4	35.2	96	189.3	50.7	56	247.3	66.3
17	16.4	4.4	77	74.4	19.9	37	132.3	35.5	97	190.3	51.0	57	248.2	66.5
18	17.4	4.7	78	75.3	20.2	38	133.3	35.7	98	191.3	51.2	58	249.2	66.8
19	18.4	4.9	79	76.3	20.4	39	134.3	36.0	99	192.2	51.5	59	250.2	67.0
20	19.3	5.2	80	77.3	20.7	40	135.2	36.2	200	193.2	51.8	60	251.1	67.3
21	20.3	5.4	81	78.2	21.0	141	136.2	36.5	201	194.2	52.0	261	252.1	67.6
22	21.3	5.7	82	79.2	21.2	42	137.2	36.8	02	195.1	52.3	62	253.1	67.8
23	22.2	6.0	83	80.2	21.5	43	138.1	37.0	03	196.1	52.5	63	254.0	68.1
24	23.2	6.2	84	81.1	21.7	44	139.1	37.3	04	197.0	52.8	64	255.0	68.3
25	24.1	6.5	85	82.1	22.0	45	140.1	37.5	05	198.0	53.1	65	256.0	68.6
26	25.1	6.7	86	83.1	22.3	46	141.0	37.8	06	199.0	53.3	66	256.9	68.8
27	26.1	7.0	87	84.0	22.5	47	142.0	38.0	07	199.9	53.6	67	257.9	69.1
28	27.0	7.2	88	85.0	22.8	48	143.0	38.3	08	200.9	53.8	68	258.9	69.4
29	28.0	7.5	89	86.0	23.0	49	143.9	38.6	09	201.9	54.1	69	259.8	69.6
30	29.0	7.8	90	86.9	23.3	50	144.9	38.8	10	202.8	54.4	70	260.8	69.9
31	29.9	8.0	91	87.9	23.6	151	145.9	39.1	211	203.8	54.6	271	261.8	70.1
32	30.9	8.3	92	88.9	23.8	52	146.8	39.3	12	204.8	54.9	72	262.7	70.4
33	31.9	8.5	93	89.8	24.1	53	147.8	39.6	13	205.7	55.1	73	263.7	70.7
34	32.8	8.8	94	90.8	24.3	54	148.8	39.9	14	206.7	55.4	74	264.7	70.9
35	33.8	9.1	95	91.8	24.6	55	149.7	40.1	15	207.7	55.6	75	265.6	71.2
36	34.8	9.3	96	92.7	24.8	56	150.7	40.4	16	208.6	55.9	76	266.6	71.4
37	35.7	9.6	97	93.7	25.1	57	151.7	40.6	17	209.6	56.2	77	267.6	71.7
38	36.7	9.8	98	94.7	25.4	58	152.6	40.9	18	210.6	56.4	78	268.5	72.0
39	37.7	10.1	99	95.6	25.6	59	153.6	41.2	19	211.5	56.7	79	269.5	72.2
40	38.6	10.4	100	96.6	25.9	60	154.5	41.4	20	212.5	56.9	80	270.5	72.5
41	39.6	10.6	101	97.6	26.1	161	155.5	41.7	221	213.5	57.2	281	271.4	72.7
42	40.6	10.9	02	98.5	26.4	62	156.5	41.9	22	214.4	57.5	82	272.4	73.0
43	41.5	11.1	03	99.5	26.7	63	157.4	42.2	23	215.4	57.7	83	273.4	73.2
44	42.5	11.4	04	100.5	26.9	64	158.4	42.4	24	216.4	58.0	84	274.3	73.5
45	43.5	11.6	05	101.4	27.2	65	159.4	42.7	25	217.3	58.2	85	275.3	73.8
46	44.4	11.9	06	102.4	27.4	66	160.3	43.0	26	218.3	58.5	86	276.3	74.0
47	45.4	12.2	07	103.4	27.7	67	161.3	43.2	27	219.3	58.8	87	277.2	74.3
48	46.4	12.4	08	104.3	28.0	68	162.3	43.5	28	220.2	59.0	88	278.2	74.5
49	47.3	12.7	09	105.3	28.2	69	163.2	43.7	29	221.2	59.3	89	279.2	74.8
50	48.3	12.9	10	106.3	28.5	70	164.2	44.0	30	222.2	59.5	90	280.1	75.1
51	49.3	13.2	111	107.2	28.7	171	165.2	44.3	231	223.1	59.8	291	281.1	75.3
52	50.2	13.5	12	108.2	29.0	72	166.1	44.5	32	224.1	60.0	92	282.1	75.6
53	51.2	13.7	13	109.1	29.2	73	167.1	44.8	33	225.1	60.3	93	283.0	75.8
54	52.2	14.0	14	110.1	29.5	74	168.1	45.0	34	226.0	60.6	94	284.0	76.1
55	53.1	14.2	15	111.1	29.8	75	169.0	45.3	35	227.0	60.8	95	284.9	76.4
56	54.1	14.5	16	112.0	30.0	76	170.0	45.6	36	228.0	61.1	96	285.9	76.6
57	55.1	14.8	17	113.0	30.3	77	171.0	45.8	37	228.9	61.3	97	286.9	76.9
58	56.0	15.0	18	114.0	30.5	78	171.9	46.1	38	229.9	61.6	98	287.8	77.1
59	57.0	15.3	19	114.9	30.8	79	172.9	46.3	39	230.9	61.9	99	288.8	77.4
60	58.0	15.5	20	115.9	31.1	80	173.9	46.6	40	231.8	62.1	300	289.8	77.6
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

285° / 255° | 075° / 105°

75°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

Traverse Table — 15°

345° / 195° | 015° / 165°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	290.7	77.9	361	348.7	93.4	421	406.7	109.0	481	464.6	124.5	541	522.6	140.0
02	291.7	78.2	62	349.7	93.7	22	407.6	109.2	82	465.6	124.8	42	523.5	140.3
03	292.7	78.4	63	350.6	94.0	23	408.6	109.5	83	466.5	125.0	43	524.5	140.5
04	293.6	78.7	64	351.6	94.2	24	409.6	109.7	84	467.5	125.3	44	525.5	140.8
05	294.6	78.9	65	352.6	94.5	25	410.5	110.0	85	468.5	125.5	45	526.4	141.1
06	295.6	79.2	66	353.5	94.7	26	411.5	110.3	86	469.4	125.8	46	527.4	141.3
07	296.5	79.5	67	354.5	95.0	27	412.5	110.5	87	470.4	126.0	47	528.4	141.6
08	297.5	79.7	68	355.5	95.2	28	413.4	110.8	88	471.4	126.3	48	529.3	141.8
09	298.5	80.0	69	356.4	95.5	29	414.4	111.0	89	472.3	126.6	49	530.3	142.1
10	299.4	80.2	70	357.4	95.8	30	415.3	111.3	90	473.3	126.8	50	531.3	142.4
311	300.4	80.5	371	358.4	96.0	431	416.3	111.6	491	474.3	127.1	551	532.2	142.6
12	301.4	80.8	72	359.3	96.3	32	417.3	111.8	92	475.2	127.3	52	533.2	142.9
13	302.3	81.0	73	360.3	96.5	33	418.2	112.1	93	476.2	127.6	53	534.2	143.1
14	303.3	81.3	74	361.3	96.8	34	419.2	112.3	94	477.2	127.9	54	535.1	143.4
15	304.3	81.5	75	362.2	97.1	35	420.2	112.6	95	478.1	128.1	55	536.1	143.6
16	305.2	81.8	76	363.2	97.3	36	421.1	112.8	96	479.1	128.4	56	537.1	143.9
17	306.2	82.0	77	364.2	97.6	37	422.1	113.1	97	480.1	128.6	57	538.0	144.2
18	307.2	82.3	78	365.1	97.8	38	423.1	113.4	98	481.0	128.9	58	539.0	144.4
19	308.1	82.6	79	366.1	98.1	39	424.0	113.6	99	482.0	129.2	59	540.0	144.7
20	309.1	82.8	80	367.1	98.4	40	425.0	113.9	500	483.0	129.4	60	540.9	144.9
321	310.1	83.1	381	368.0	98.6	441	426.0	114.1	501	483.9	129.7	561	541.9	145.2
22	311.0	83.3	82	369.0	98.9	42	426.9	114.4	02	484.9	129.9	62	542.9	145.5
23	312.0	83.6	83	369.9	99.1	43	427.9	114.7	03	485.9	130.2	63	543.8	145.7
24	313.0	83.9	84	370.9	99.4	44	428.9	114.9	04	486.8	130.4	64	544.8	146.0
25	313.9	84.1	85	371.9	99.6	45	429.8	115.2	05	487.8	130.7	65	545.7	146.2
26	314.9	84.4	86	372.8	99.9	46	430.8	115.4	06	488.8	131.0	66	546.7	146.5
27	315.9	84.6	87	373.8	100.2	47	431.8	115.7	07	489.7	131.2	67	547.7	146.8
28	316.8	84.9	88	374.8	100.4	48	432.7	116.0	08	490.7	131.5	68	548.6	147.0
29	317.8	85.2	89	375.7	100.7	49	433.7	116.2	09	491.7	131.7	69	549.6	147.3
30	318.8	85.4	90	376.7	100.9	50	434.7	116.5	10	492.6	132.0	70	550.6	147.5
331	319.7	85.7	391	377.7	101.2	451	435.6	116.7	511	493.6	132.3	571	551.5	147.8
32	320.7	85.9	92	378.6	101.5	52	436.6	117.0	12	494.6	132.5	72	552.5	148.0
33	321.7	86.2	93	379.6	101.7	53	437.6	117.2	13	495.5	132.8	73	553.5	148.3
34	322.6	86.4	94	380.6	102.0	54	438.5	117.5	14	496.5	133.0	74	554.4	148.6
35	323.6	86.7	95	381.5	102.2	55	439.5	117.8	15	497.5	133.3	75	555.4	148.8
36	324.6	87.0	96	382.5	102.5	56	440.5	118.0	16	498.4	133.6	76	556.4	149.1
37	325.5	87.2	97	383.5	102.8	57	441.4	118.3	17	499.4	133.8	77	557.3	149.3
38	326.5	87.5	98	384.4	103.0	58	442.4	118.5	18	500.3	134.1	78	558.3	149.6
39	327.4	87.7	99	385.4	103.3	59	443.4	118.8	19	501.3	134.3	79	559.3	149.9
40	328.4	88.0	400	386.4	103.5	60	444.3	119.1	20	502.3	134.6	80	560.2	150.1
341	329.4	88.3	401	387.3	103.8	461	445.3	119.3	521	503.2	134.8	581	561.2	150.4
42	330.3	88.5	02	388.3	104.0	62	446.3	119.6	22	504.2	135.1	82	562.2	150.6
43	331.3	88.8	03	389.3	104.3	63	447.2	119.8	23	505.2	135.4	83	563.1	150.9
44	332.3	89.0	04	390.2	104.6	64	448.2	120.1	24	506.1	135.6	84	564.1	151.2
45	333.2	89.3	05	391.2	104.8	65	449.2	120.4	25	507.1	135.9	85	565.1	151.4
46	334.2	89.6	06	392.2	105.1	66	450.1	120.6	26	508.1	136.1	86	566.0	151.7
47	335.2	89.8	07	393.1	105.3	67	451.1	120.9	27	509.0	136.4	87	567.0	151.9
48	336.1	90.1	08	394.1	105.6	68	452.1	121.1	28	510.0	136.7	88	568.0	152.2
49	337.1	90.3	09	395.1	105.9	69	453.0	121.4	29	511.0	136.9	89	568.9	152.4
50	338.1	90.6	10	396.0	106.1	70	454.0	121.6	30	511.9	137.2	90	569.9	152.7
351	339.0	90.8	411	397.0	106.4	471	455.0	121.9	531	512.9	137.4	591	570.9	153.0
52	340.0	91.1	12	398.0	106.6	72	455.9	122.2	32	513.9	137.7	92	571.8	153.2
53	341.0	91.4	13	398.9	106.9	73	456.9	122.4	33	514.8	138.0	93	572.8	153.5
54	341.9	91.6	14	399.9	107.2	74	457.8	122.7	34	515.8	138.2	94	573.8	153.7
55	342.9	91.9	15	400.9	107.4	75	458.8	122.9	35	516.8	138.5	95	574.7	154.0
56	343.9	92.1	16	401.8	107.7	76	459.8	123.2	36	517.7	138.7	96	575.7	154.3
57	344.8	92.4	17	402.8	107.9	77	460.7	123.5	37	518.7	139.0	97	576.7	154.5
58	345.8	92.7	18	403.8	108.2	78	461.7	123.7	38	519.7	139.2	98	577.6	154.8
59	346.8	92.9	19	404.7	108.4	79	462.7	124.0	39	520.6	139.5	99	578.6	155.0
60	347.7	93.2	20	405.7	108.7	80	463.6	124.2	40	521.6	139.8	600	579.6	155.3
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

285° / 255° | 075° / 105°

75°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

16° Traverse Table

344° / 196° | 016° / 164°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.3	61	58.6	16.8	121	116.3	33.4	181	174.0	49.9	241	231.7	66.4
2	1.9	0.6	62	59.6	17.1	22	117.3	33.6	82	174.9	50.2	42	232.6	66.7
3	2.9	0.8	63	60.6	17.4	23	118.2	33.9	83	175.9	50.4	43	233.6	67.0
4	3.8	1.1	64	61.5	17.6	24	119.2	34.2	84	176.9	50.7	44	234.5	67.3
5	4.8	1.4	65	62.5	17.9	25	120.2	34.5	85	177.8	51.0	45	235.5	67.5
6	5.8	1.7	66	63.4	18.2	26	121.1	34.7	86	178.8	51.3	46	236.5	67.8
7	6.7	1.9	67	64.4	18.5	27	122.1	35.0	87	179.8	51.5	47	237.4	68.1
8	7.7	2.2	68	65.4	18.7	28	123.0	35.3	88	180.7	51.8	48	238.4	68.4
9	8.7	2.5	69	66.3	19.0	29	124.0	35.6	89	181.7	52.1	49	239.4	68.6
10	9.6	2.8	70	67.3	19.3	30	125.0	35.8	90	182.6	52.4	50	240.3	68.9
11	10.6	3.0	71	68.2	19.6	131	125.9	36.1	191	183.6	52.6	251	241.3	69.2
12	11.5	3.3	72	69.2	19.8	32	126.9	36.4	92	184.6	52.9	52	242.2	69.5
13	12.5	3.6	73	70.2	20.1	33	127.8	36.7	93	185.5	53.2	53	243.2	69.7
14	13.5	3.9	74	71.1	20.4	34	128.8	36.9	94	186.5	53.5	54	244.2	70.0
15	14.4	4.1	75	72.1	20.7	35	129.8	37.2	95	187.4	53.7	55	245.1	70.3
16	15.4	4.4	76	73.1	20.9	36	130.7	37.5	96	188.4	54.0	56	246.1	70.6
17	16.3	4.7	77	74.0	21.2	37	131.7	37.8	97	189.4	54.3	57	247.0	70.8
18	17.3	5.0	78	75.0	21.5	38	132.7	38.0	98	190.3	54.6	58	248.0	71.1
19	18.3	5.2	79	75.9	21.8	39	133.6	38.3	99	191.3	54.9	59	249.0	71.4
20	19.2	5.5	80	76.9	22.1	40	134.6	38.6	200	192.3	55.1	60	249.9	71.7
21	20.2	5.8	81	77.9	22.3	141	135.5	38.9	201	193.2	55.4	261	250.9	71.9
22	21.1	6.1	82	78.8	22.6	42	136.5	39.1	02	194.2	55.7	62	251.9	72.2
23	22.1	6.3	83	79.8	22.9	43	137.5	39.4	03	195.1	56.0	63	252.8	72.5
24	23.1	6.6	84	80.7	23.2	44	138.4	39.7	04	196.1	56.2	64	253.8	72.8
25	24.0	6.9	85	81.7	23.4	45	139.4	40.0	05	197.1	56.5	65	254.7	73.0
26	25.0	7.2	86	82.7	23.7	46	140.3	40.2	06	198.0	56.8	66	255.7	73.3
27	26.0	7.4	87	83.6	24.0	47	141.3	40.5	07	199.0	57.1	67	256.7	73.6
28	26.9	7.7	88	84.6	24.3	48	142.3	40.8	08	199.9	57.3	68	257.6	73.9
29	27.9	8.0	89	85.6	24.5	49	143.2	41.1	09	200.9	57.6	69	258.6	74.1
30	28.8	8.3	90	86.5	24.8	50	144.2	41.3	10	201.9	57.9	70	259.5	74.4
31	29.8	8.5	91	87.5	25.1	151	145.2	41.6	211	202.8	58.2	271	260.5	74.7
32	30.8	8.8	92	88.4	25.4	52	146.1	41.9	12	203.8	58.4	72	261.5	75.0
33	31.7	9.1	93	89.4	25.6	53	147.1	42.2	13	204.7	58.7	73	262.4	75.2
34	32.7	9.4	94	90.4	25.9	54	148.0	42.4	14	205.7	59.0	74	263.4	75.5
35	33.6	9.6	95	91.3	26.2	55	149.0	42.7	15	206.7	59.3	75	264.3	75.8
36	34.6	9.9	96	92.3	26.5	56	150.0	43.0	16	207.6	59.5	76	265.3	76.1
37	35.6	10.2	97	93.2	26.7	57	150.9	43.3	17	208.6	59.8	77	266.3	76.4
38	36.5	10.5	98	94.2	27.0	58	151.9	43.6	18	209.6	60.1	78	267.2	76.6
39	37.5	10.7	99	95.2	27.3	59	152.8	43.8	19	210.5	60.4	79	268.2	76.9
40	38.5	11.0	100	96.1	27.6	60	153.8	44.1	20	211.5	60.6	80	269.2	77.2
41	39.4	11.3	101	97.1	27.8	161	154.8	44.4	221	212.4	60.9	281	270.1	77.5
42	40.4	11.6	02	98.0	28.1	62	155.7	44.7	22	213.4	61.2	82	271.1	77.7
43	41.3	11.9	03	99.0	28.4	63	156.7	44.9	23	214.4	61.5	83	272.0	78.0
44	42.3	12.1	04	100.0	28.7	64	157.6	45.2	24	215.3	61.7	84	273.0	78.3
45	43.3	12.4	05	100.9	28.9	65	158.6	45.5	25	216.3	62.0	85	274.0	78.6
46	44.2	12.7	06	101.9	29.2	66	159.6	45.8	26	217.2	62.3	86	274.9	78.8
47	45.2	13.0	07	102.9	29.5	67	160.5	46.0	27	218.2	62.6	87	275.9	79.1
48	46.1	13.2	08	103.8	29.8	68	161.5	46.3	28	219.2	62.8	88	276.8	79.4
49	47.1	13.5	09	104.8	30.0	69	162.5	46.6	29	220.1	63.1	89	277.8	79.7
50	48.1	13.8	10	105.7	30.3	70	163.4	46.9	30	221.1	63.4	90	278.8	79.9
51	49.0	14.1	111	106.7	30.6	171	164.4	47.1	231	222.1	63.7	291	279.7	80.2
52	50.0	14.3	12	107.7	30.9	72	165.3	47.4	32	223.0	63.9	92	280.7	80.5
53	50.9	14.6	13	108.6	31.1	73	166.3	47.7	33	224.0	64.2	93	281.6	80.8
54	51.9	14.9	14	109.6	31.4	74	167.3	48.0	34	224.9	64.5	94	282.6	81.0
55	52.9	15.2	15	110.5	31.7	75	168.2	48.2	35	225.9	64.8	95	283.6	81.3
56	53.8	15.4	16	111.5	32.0	76	169.2	48.5	36	226.9	65.1	96	284.5	81.6
57	54.8	15.7	17	112.5	32.2	77	170.1	48.8	37	227.8	65.3	97	285.5	81.9
58	55.8	16.0	18	113.4	32.5	78	171.1	49.1	38	228.8	65.6	98	286.5	82.1
59	56.7	16.3	19	114.4	32.8	79	172.1	49.3	39	229.7	65.9	99	287.4	82.4
60	57.7	16.5	20	115.4	33.1	80	173.0	49.6	40	230.7	66.2	300	288.4	82.7
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

286° / 254° | 074° / 106°

74°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

16° Traverse Table

344° / 196° | 016° / 164°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	289.3	83.0	361	347.0	99.5	421	404.7	116.0	481	462.4	132.6	541	520.0	149.1
02	290.3	83.2	62	348.0	99.8	22	405.7	116.3	82	463.3	132.9	42	521.0	149.4
03	291.3	83.5	63	348.9	100.1	23	406.6	116.6	83	464.3	133.1	43	522.0	149.7
04	292.2	83.8	64	349.9	100.3	24	407.6	116.9	84	465.3	133.4	44	522.9	149.9
05	293.2	84.1	65	350.9	100.6	25	408.5	117.1	85	466.2	133.7	45	523.9	150.2
06	294.1	84.3	66	351.8	100.9	26	409.5	117.4	86	467.2	134.0	46	524.8	150.5
07	295.1	84.6	67	352.8	101.2	27	410.5	117.7	87	468.1	134.2	47	525.8	150.8
08	296.1	84.9	68	353.7	101.4	28	411.4	118.0	88	469.1	134.5	48	526.8	151.0
09	297.0	85.2	69	354.7	101.7	29	412.4	118.2	89	470.1	134.8	49	527.7	151.3
10	298.0	85.4	70	355.7	102.0	30	413.3	118.5	90	471.0	135.1	50	528.7	151.6
311	299.0	85.7	371	356.6	102.3	431	414.3	118.8	491	472.0	135.3	551	529.7	151.9
12	299.9	86.0	72	357.6	102.5	32	415.3	119.1	92	472.9	135.6	52	530.6	152.2
13	300.9	86.3	73	358.6	102.8	33	416.2	119.4	93	473.9	135.9	53	531.6	152.4
14	301.8	86.6	74	359.5	103.1	34	417.2	119.6	94	474.9	136.2	54	532.5	152.7
15	302.8	86.8	75	360.5	103.4	35	418.1	119.9	95	475.8	136.4	55	533.5	153.0
16	303.8	87.1	76	361.4	103.6	36	419.1	120.2	96	476.8	136.7	56	534.5	153.3
17	304.7	87.4	77	362.4	103.9	37	420.1	120.5	97	477.7	137.0	57	535.4	153.5
18	305.7	87.7	78	363.4	104.2	38	421.0	120.7	98	478.7	137.3	58	536.4	153.8
19	306.6	87.9	79	364.3	104.5	39	422.0	121.0	99	479.7	137.5	59	537.3	154.1
20	307.6	88.2	80	365.3	104.7	40	423.0	121.3	500	480.6	137.8	60	538.3	154.4
321	308.6	88.5	381	366.2	105.0	441	423.9	121.6	501	481.6	138.1	561	539.3	154.6
22	309.5	88.8	82	367.2	105.3	42	424.9	121.8	02	482.6	138.4	62	540.2	154.9
23	310.5	89.0	83	368.2	105.6	43	425.8	122.1	03	483.5	138.6	63	541.2	155.2
24	311.4	89.3	84	369.1	105.8	44	426.8	122.4	04	484.5	138.9	64	542.2	155.5
25	312.4	89.6	85	370.1	106.1	45	427.8	122.7	05	485.4	139.2	65	543.1	155.7
26	313.4	89.9	86	371.0	106.4	46	428.7	122.9	06	486.4	139.5	66	544.1	156.0
27	314.3	90.1	87	372.0	106.7	47	429.7	123.2	07	487.4	139.7	67	545.0	156.3
28	315.3	90.4	88	373.0	106.9	48	430.6	123.5	08	488.3	140.0	68	546.0	156.6
29	316.3	90.7	89	373.9	107.2	49	431.6	123.8	09	489.3	140.3	69	547.0	156.8
30	317.2	91.0	90	374.9	107.5	50	432.6	124.0	10	490.2	140.6	70	547.9	157.1
331	318.2	91.2	391	375.9	107.8	451	433.5	124.3	511	491.2	140.9	571	548.9	157.4
32	319.1	91.5	92	376.8	108.0	52	434.5	124.6	12	492.2	141.1	72	549.8	157.7
33	320.1	91.8	93	377.8	108.3	53	435.5	124.9	13	493.1	141.4	73	550.8	157.9
34	321.1	92.1	94	378.7	108.6	54	436.4	125.1	14	494.1	141.7	74	551.8	158.2
35	322.0	92.3	95	379.7	108.9	55	437.4	125.4	15	495.0	142.0	75	552.7	158.5
36	323.0	92.6	96	380.7	109.2	56	438.3	125.7	16	496.0	142.2	76	553.7	158.8
37	323.9	92.9	97	381.6	109.4	57	439.3	126.0	17	497.0	142.5	77	554.6	159.0
38	324.9	93.2	98	382.6	109.7	58	440.3	126.2	18	497.9	142.8	78	555.6	159.3
39	325.9	93.4	99	383.5	110.0	59	441.2	126.5	19	498.9	143.1	79	556.6	159.6
40	326.8	93.7	400	384.5	110.3	60	442.2	126.8	20	499.9	143.3	80	557.5	159.9
341	327.8	94.0	401	385.5	110.5	461	443.1	127.1	521	500.8	143.6	581	558.5	160.1
42	328.8	94.3	02	386.4	110.8	62	444.1	127.3	22	501.8	143.9	82	559.5	160.4
43	329.7	94.5	03	387.4	111.1	63	445.1	127.6	23	502.7	144.2	83	560.4	160.7
44	330.7	94.8	04	388.3	111.4	64	446.0	127.9	24	503.7	144.4	84	561.4	161.0
45	331.6	95.1	05	389.3	111.6	65	447.0	128.2	25	504.7	144.7	85	562.3	161.2
46	332.6	95.4	06	390.3	111.9	66	447.9	128.4	26	505.6	145.0	86	563.3	161.5
47	333.6	95.6	07	391.2	112.2	67	448.9	128.7	27	506.6	145.3	87	564.3	161.8
48	334.5	95.9	08	392.2	112.5	68	449.9	129.0	28	507.5	145.5	88	565.2	162.1
49	335.5	96.2	09	393.2	112.7	69	450.8	129.3	29	508.5	145.8	89	566.2	162.4
50	336.4	96.5	10	394.1	113.0	70	451.8	129.5	30	509.5	146.1	90	567.1	162.6
351	337.4	96.7	411	395.1	113.3	471	452.8	129.8	531	510.4	146.4	591	568.1	162.9
52	338.4	97.0	12	396.0	113.6	72	453.7	130.1	32	511.4	146.6	92	569.1	163.2
53	339.3	97.3	13	397.0	113.8	73	454.7	130.4	33	512.4	146.9	93	570.0	163.5
54	340.3	97.6	14	398.0	114.1	74	455.6	130.7	34	513.3	147.2	94	571.0	163.7
55	341.2	97.9	15	398.9	114.4	75	456.6	130.9	35	514.3	147.5	95	572.0	164.0
56	342.2	98.1	16	399.9	114.7	76	457.6	131.2	36	515.2	147.7	96	572.9	164.3
57	343.2	98.4	17	400.8	114.9	77	458.5	131.5	37	516.2	148.0	97	573.9	164.6
58	344.1	98.7	18	401.8	115.2	78	459.5	131.8	38	517.2	148.3	98	574.8	164.8
59	345.1	99.0	19	402.8	115.5	79	460.4	132.0	39	518.1	148.6	99	575.8	165.1
60	346.1	99.2	20	403.7	115.8	80	461.4	132.3	40	519.1	148.8	600	576.8	165.4
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

286° / 254° | 074° / 106°

74°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

343° / 197° | 017° / 163°

Traverse **17°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.3	61	58.3	17.8	121	115.7	35.4	181	173.1	52.9	241	230.5	70.5
2	1.9	0.6	62	59.3	18.1	22	116.7	35.7	82	174.0	53.2	42	231.4	70.8
3	2.9	0.9	63	60.2	18.4	23	117.6	36.0	83	175.0	53.5	43	232.4	71.0
4	3.8	1.2	64	61.2	18.7	24	118.6	36.3	84	176.0	53.8	44	233.3	71.3
5	4.8	1.5	65	62.2	19.0	25	119.5	36.5	85	176.9	54.1	45	234.3	71.6
6	5.7	1.8	66	63.1	19.3	26	120.5	36.8	86	177.9	54.4	46	235.3	71.9
7	6.7	2.0	67	64.1	19.6	27	121.5	37.1	87	178.8	54.7	47	236.2	72.2
8	7.7	2.3	68	65.0	19.9	28	122.4	37.4	88	179.8	55.0	48	237.2	72.5
9	8.6	2.6	69	66.0	20.2	29	123.4	37.7	89	180.7	55.3	49	238.1	72.8
10	9.6	2.9	70	66.9	20.5	30	124.3	38.0	90	181.7	55.6	50	239.1	73.1
11	10.5	3.2	71	67.9	20.8	131	125.3	38.3	191	182.7	55.8	251	240.0	73.4
12	11.5	3.5	72	68.9	21.1	32	126.2	38.6	92	183.6	56.1	52	241.0	73.7
13	12.4	3.8	73	69.8	21.3	33	127.2	38.9	93	184.6	56.4	53	241.9	74.0
14	13.4	4.1	74	70.8	21.6	34	128.1	39.2	94	185.5	56.7	54	242.9	74.3
15	14.3	4.4	75	71.7	21.9	35	129.1	39.5	95	186.5	57.0	55	243.9	74.6
16	15.3	4.7	76	72.7	22.2	36	130.1	39.8	96	187.4	57.3	56	244.8	74.8
17	16.3	5.0	77	73.6	22.5	37	131.0	40.1	97	188.4	57.6	57	245.8	75.1
18	17.2	5.3	78	74.6	22.8	38	132.0	40.3	98	189.3	57.9	58	246.7	75.4
19	18.2	5.6	79	75.5	23.1	39	132.9	40.6	99	190.3	58.2	59	247.7	75.7
20	19.1	5.8	80	76.5	23.4	40	133.9	40.9	200	191.3	58.5	60	248.6	76.0
21	20.1	6.1	81	77.5	23.7	141	134.8	41.2	201	192.2	58.8	261	249.6	76.3
22	21.0	6.4	82	78.4	24.0	42	135.8	41.5	02	193.2	59.1	62	250.6	76.6
23	22.0	6.7	83	79.4	24.3	43	136.8	41.8	03	194.1	59.4	63	251.5	76.9
24	23.0	7.0	84	80.3	24.6	44	137.7	42.1	04	195.1	59.6	64	252.5	77.2
25	23.9	7.3	85	81.3	24.9	45	138.7	42.4	05	196.0	59.9	65	253.4	77.5
26	24.9	7.6	86	82.2	25.1	46	139.6	42.7	06	197.0	60.2	66	254.4	77.8
27	25.8	7.9	87	83.2	25.4	47	140.6	43.0	07	198.0	60.5	67	255.3	78.1
28	26.8	8.2	88	84.2	25.7	48	141.5	43.3	08	198.9	60.8	68	256.3	78.4
29	27.7	8.5	89	85.1	26.0	49	142.5	43.6	09	199.9	61.1	69	257.2	78.6
30	28.7	8.8	90	86.1	26.3	50	143.4	43.9	10	200.8	61.4	70	258.2	78.9
31	29.6	9.1	91	87.0	26.6	151	144.4	44.1	211	201.8	61.7	271	259.2	79.2
32	30.6	9.4	92	88.0	26.9	52	145.4	44.4	12	202.7	62.0	72	260.1	79.5
33	31.6	9.6	93	88.9	27.2	53	146.3	44.7	13	203.7	62.3	73	261.1	79.8
34	32.5	9.9	94	89.9	27.5	54	147.3	45.0	14	204.6	62.6	74	262.0	80.1
35	33.5	10.2	95	90.8	27.8	55	148.2	45.3	15	205.6	62.9	75	263.0	80.4
36	34.4	10.5	96	91.8	28.1	56	149.2	45.6	16	206.6	63.2	76	263.9	80.7
37	35.4	10.8	97	92.8	28.4	57	150.1	45.9	17	207.5	63.4	77	264.9	81.0
38	36.3	11.1	98	93.7	28.7	58	151.1	46.2	18	208.5	63.7	78	265.9	81.3
39	37.3	11.4	99	94.7	28.9	59	152.1	46.5	19	209.4	64.0	79	266.8	81.6
40	38.3	11.7	100	95.6	29.2	60	153.0	46.8	20	210.4	64.3	80	267.8	81.9
41	39.2	12.0	101	96.6	29.5	161	154.0	47.1	221	211.3	64.6	281	268.7	82.2
42	40.2	12.3	02	97.5	29.8	62	154.9	47.4	22	212.3	64.9	82	269.7	82.4
43	41.1	12.6	03	98.5	30.1	63	155.9	47.7	23	213.3	65.2	83	270.6	82.7
44	42.1	12.9	04	99.5	30.4	64	156.8	47.9	24	214.2	65.5	84	271.6	83.0
45	43.0	13.2	05	100.4	30.7	65	157.8	48.2	25	215.2	65.8	85	272.5	83.3
46	44.0	13.4	06	101.4	31.0	66	158.7	48.5	26	216.1	66.1	86	273.5	83.6
47	44.9	13.7	07	102.3	31.3	67	159.7	48.8	27	217.1	66.4	87	274.5	83.9
48	45.9	14.0	08	103.3	31.6	68	160.7	49.1	28	218.0	66.7	88	275.4	84.2
49	46.9	14.3	09	104.2	31.9	69	161.6	49.4	29	219.0	67.0	89	276.4	84.5
50	47.8	14.6	10	105.2	32.2	70	162.6	49.7	30	220.0	67.2	90	277.3	84.8
51	48.8	14.9	111	106.1	32.5	171	163.5	50.0	231	220.9	67.5	291	278.3	85.1
52	49.7	15.2	12	107.1	32.7	72	164.5	50.3	32	221.9	67.8	92	279.2	85.4
53	50.7	15.5	13	108.1	33.0	73	165.4	50.6	33	222.8	68.1	93	280.2	85.7
54	51.6	15.8	14	109.0	33.3	74	166.4	50.9	34	223.8	68.4	94	281.2	86.0
55	52.6	16.1	15	110.0	33.6	75	167.4	51.2	35	224.7	68.7	95	282.1	86.2
56	53.6	16.4	16	110.9	33.9	76	168.3	51.5	36	225.7	69.0	96	283.1	86.5
57	54.5	16.7	17	111.9	34.2	77	169.3	51.7	37	226.6	69.3	97	284.0	86.8
58	55.5	17.0	18	112.8	34.5	78	170.2	52.0	38	227.6	69.6	98	285.0	87.1
59	56.4	17.2	19	113.8	34.8	79	171.2	52.3	39	228.6	69.9	99	285.9	87.4
60	57.4	17.5	20	114.8	35.1	80	172.1	52.6	40	229.5	70.2	300	286.9	87.7
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

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73°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

343° / 197° | 017° / 163°

Traverse **17°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	287.8	88.0	361	345.2	105.5	421	402.6	123.1	481	460.0	140.6	541	517.4	158.2
02	288.8	88.3	62	346.2	105.8	22	403.6	123.4	82	460.9	140.9	42	518.3	158.5
03	289.8	88.6	63	347.1	106.1	23	404.5	123.7	83	461.9	141.2	43	519.3	158.8
04	290.7	88.9	64	348.1	106.4	24	405.5	124.0	84	462.9	141.5	44	520.2	159.1
05	291.7	89.2	65	349.1	106.7	25	406.4	124.3	85	463.8	141.8	45	521.2	159.3
06	292.6	89.5	66	350.0	107.0	26	407.4	124.6	86	464.8	142.1	46	522.1	159.6
07	293.6	89.8	67	351.0	107.3	27	408.3	124.8	87	465.7	142.4	47	523.1	159.9
08	294.5	90.1	68	351.9	107.6	28	409.3	125.1	88	466.7	142.7	48	524.1	160.2
09	295.5	90.3	69	352.9	107.9	29	410.3	125.4	89	467.6	143.0	49	525.0	160.5
10	296.5	90.6	70	353.8	108.2	30	411.2	125.7	90	468.6	143.3	50	526.0	160.8
311	297.4	90.9	371	354.8	108.5	431	412.2	126.0	491	469.5	143.6	551	526.9	161.1
12	298.4	91.2	72	355.7	108.8	32	413.1	126.3	92	470.5	143.8	52	527.9	161.4
13	299.3	91.5	73	356.7	109.1	33	414.1	126.6	93	471.5	144.1	53	528.8	161.7
14	300.3	91.8	74	357.7	109.3	34	415.0	126.9	94	472.4	144.4	54	529.8	162.0
15	301.2	92.1	75	358.6	109.6	35	416.0	127.2	95	473.4	144.7	55	530.7	162.3
16	302.2	92.4	76	359.6	109.9	36	416.9	127.5	96	474.3	145.0	56	531.7	162.6
17	303.1	92.7	77	360.5	110.2	37	417.9	127.8	97	475.3	145.3	57	532.7	162.9
18	304.1	93.0	78	361.5	110.5	38	418.9	128.1	98	476.2	145.6	58	533.6	163.1
19	305.1	93.3	79	362.4	110.8	39	419.8	128.4	99	477.2	145.9	59	534.6	163.4
20	306.0	93.6	80	363.4	111.1	40	420.8	128.6	500	478.2	146.2	60	535.5	163.7
321	307.0	93.9	381	364.4	111.4	441	421.7	128.9	501	479.1	146.5	561	536.5	164.0
22	307.9	94.1	82	365.3	111.7	42	422.7	129.2	02	480.1	146.8	62	537.4	164.3
23	308.9	94.4	83	366.3	112.0	43	423.6	129.5	03	481.0	147.1	63	538.4	164.6
24	309.8	94.7	84	367.2	112.3	44	424.6	129.8	04	482.0	147.4	64	539.4	164.9
25	310.8	95.0	85	368.2	112.6	45	425.6	130.1	05	482.9	147.6	65	540.3	165.2
26	311.8	95.3	86	369.1	112.9	46	426.5	130.4	06	483.9	147.9	66	541.3	165.5
27	312.7	95.6	87	370.1	113.1	47	427.5	130.7	07	484.8	148.2	67	542.2	165.8
28	313.7	95.9	88	371.0	113.4	48	428.4	131.0	08	485.8	148.5	68	543.2	166.1
29	314.6	96.2	89	372.0	113.7	49	429.4	131.3	09	486.8	148.8	69	544.1	166.4
30	315.6	96.5	90	373.0	114.0	50	430.3	131.6	10	487.7	149.1	70	545.1	166.7
331	316.5	96.8	391	373.9	114.3	451	431.3	131.9	511	488.7	149.4	571	546.1	166.9
32	317.5	97.1	92	374.9	114.6	52	432.2	132.2	12	489.6	149.7	72	547.0	167.2
33	318.4	97.4	93	375.8	114.9	53	433.2	132.4	13	490.6	150.0	73	548.0	167.5
34	319.4	97.7	94	376.8	115.2	54	434.2	132.7	14	491.5	150.3	74	548.9	167.8
35	320.4	97.9	95	377.7	115.5	55	435.1	133.0	15	492.5	150.6	75	549.9	168.1
36	321.3	98.2	96	378.7	115.8	56	436.1	133.3	16	493.5	150.9	76	550.8	168.4
37	322.3	98.5	97	379.7	116.1	57	437.0	133.6	17	494.4	151.2	77	551.8	168.7
38	323.2	98.8	98	380.6	116.4	58	438.0	133.9	18	495.4	151.4	78	552.7	169.0
39	324.2	99.1	99	381.6	116.7	59	438.9	134.2	19	496.3	151.7	79	553.7	169.3
40	325.1	99.4	400	382.5	116.9	60	439.9	134.5	20	497.3	152.0	80	554.7	169.6
341	326.1	99.7	401	383.5	117.2	461	440.9	134.8	521	498.2	152.3	581	555.6	169.9
42	327.1	100.0	02	384.4	117.5	62	441.8	135.1	22	499.2	152.6	82	556.6	170.2
43	328.0	100.3	03	385.4	117.8	63	442.8	135.4	23	500.1	152.9	83	557.5	170.5
44	329.0	100.6	04	386.3	118.1	64	443.7	135.7	24	501.1	153.2	84	558.5	170.7
45	329.9	100.9	05	387.3	118.4	65	444.7	136.0	25	502.1	153.5	85	559.4	171.0
46	330.9	101.2	06	388.3	118.7	66	445.6	136.2	26	503.0	153.8	86	560.4	171.3
47	331.8	101.5	07	389.2	119.0	67	446.6	136.5	27	504.0	154.1	87	561.4	171.6
48	332.8	101.7	08	390.2	119.3	68	447.6	136.8	28	504.9	154.4	88	562.3	171.9
49	333.8	102.0	09	391.1	119.6	69	448.5	137.1	29	505.9	154.7	89	563.3	172.2
50	334.7	102.3	10	392.1	119.9	70	449.5	137.4	30	506.8	155.0	90	564.2	172.5
351	335.7	102.6	411	393.0	120.2	471	450.4	137.7	531	507.8	155.2	591	565.2	172.8
52	336.6	102.9	12	394.0	120.5	72	451.4	138.0	32	508.8	155.5	92	566.1	173.1
53	337.6	103.2	13	395.0	120.7	73	452.3	138.3	33	509.7	155.8	93	567.1	173.4
54	338.5	103.5	14	395.9	121.0	74	453.3	138.6	34	510.7	156.1	94	568.0	173.7
55	339.5	103.8	15	396.9	121.3	75	454.2	138.9	35	511.6	156.4	95	569.0	174.0
56	340.4	104.1	16	397.8	121.6	76	455.2	139.2	36	512.6	156.7	96	570.0	174.3
57	341.4	104.4	17	398.8	121.9	77	456.2	139.5	37	513.5	157.0	97	570.9	174.5
58	342.4	104.7	18	399.7	122.2	78	457.1	139.8	38	514.5	157.3	98	571.9	174.8
59	343.3	105.0	19	400.7	122.5	79	458.1	140.0	39	515.4	157.6	99	572.8	175.1
60	344.3	105.3	20	401.6	122.8	80	459.0	140.3	40	516.4	157.9	600	573.8	175.4
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

287° / 253° | 073° / 107°

73°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

342° | 018°
198° | 162°

18° Traverse Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	1.0	0.3	61	58.0	18.9	121	115.1	37.4	181	172.1	55.9	241	229.2	74.5
2	1.9	0.6	62	59.0	19.2	22	116.0	37.7	82	173.1	56.2	42	230.2	74.8
3	2.9	0.9	63	59.9	19.5	23	117.0	38.0	83	174.0	56.6	43	231.1	75.1
4	3.8	1.2	64	60.9	19.8	24	117.9	38.3	84	175.0	56.9	44	232.1	75.4
5	4.8	1.5	65	61.8	20.1	25	118.9	38.6	85	175.9	57.2	45	233.0	75.7
6	5.7	1.9	66	62.8	20.4	26	119.8	38.9	86	176.9	57.5	46	234.0	76.0
7	6.7	2.2	67	63.7	20.7	27	120.8	39.2	87	177.8	57.8	47	234.9	76.3
8	7.6	2.5	68	64.7	21.0	28	121.7	39.6	88	178.8	58.1	48	235.9	76.6
9	8.6	2.8	69	65.6	21.3	29	122.7	39.9	89	179.7	58.4	49	236.8	76.9
10	9.5	3.1	70	66.6	21.6	30	123.6	40.2	90	180.7	58.7	50	237.8	77.3
11	10.5	3.4	71	67.5	21.9	131	124.6	40.5	191	181.7	59.0	251	238.7	77.6
12	11.4	3.7	72	68.5	22.2	32	125.5	40.8	92	182.6	59.3	52	239.7	77.9
13	12.4	4.0	73	69.4	22.6	33	126.5	41.1	93	183.6	59.6	53	240.6	78.2
14	13.3	4.3	74	70.4	22.9	34	127.4	41.4	94	184.5	59.9	54	241.6	78.5
15	14.3	4.6	75	71.3	23.2	35	128.4	41.7	95	185.5	60.3	55	242.5	78.8
16	15.2	4.9	76	72.3	23.5	36	129.3	42.0	96	186.4	60.6	56	243.5	79.1
17	16.2	5.3	77	73.2	23.8	37	130.3	42.3	97	187.4	60.9	57	244.4	79.4
18	17.1	5.6	78	74.2	24.1	38	131.2	42.6	98	188.3	61.2	58	245.4	79.7
19	18.1	5.9	79	75.1	24.4	39	132.2	43.0	99	189.3	61.5	59	246.3	80.0
20	19.0	6.2	80	76.1	24.7	40	133.1	43.3	200	190.2	61.8	60	247.3	80.3
21	20.0	6.5	81	77.0	25.0	141	134.1	43.6	201	191.2	62.1	261	248.2	80.7
22	20.9	6.8	82	78.0	25.3	42	135.1	43.9	02	192.1	62.4	62	249.2	81.0
23	21.9	7.1	83	78.9	25.6	43	136.0	44.2	03	193.1	62.7	63	250.1	81.3
24	22.8	7.4	84	79.9	26.0	44	137.0	44.5	04	194.0	63.0	64	251.1	81.6
25	23.8	7.7	85	80.8	26.3	45	137.9	44.8	05	195.0	63.3	65	252.0	81.9
26	24.7	8.0	86	81.8	26.6	46	138.9	45.1	06	195.9	63.7	66	253.0	82.2
27	25.7	8.3	87	82.7	26.9	47	139.8	45.4	07	196.9	64.0	67	253.9	82.5
28	26.6	8.7	88	83.7	27.2	48	140.8	45.7	08	197.8	64.3	68	254.9	82.8
29	27.6	9.0	89	84.6	27.5	49	141.7	46.0	09	198.8	64.6	69	255.8	83.1
30	28.5	9.3	90	85.6	27.8	50	142.7	46.4	10	199.7	64.9	70	256.8	83.4
31	29.5	9.6	91	86.5	28.1	151	143.6	46.7	211	200.7	65.2	271	257.7	83.7
32	30.4	9.9	92	87.5	28.4	52	144.6	47.0	12	201.6	65.5	72	258.7	84.1
33	31.4	10.2	93	88.4	28.7	53	145.5	47.3	13	202.6	65.8	73	259.6	84.4
34	32.3	10.5	94	89.4	29.0	54	146.5	47.6	14	203.5	66.1	74	260.6	84.7
35	33.3	10.8	95	90.4	29.4	55	147.4	47.9	15	204.5	66.4	75	261.5	85.0
36	34.2	11.1	96	91.3	29.7	56	148.4	48.2	16	205.4	66.7	76	262.5	85.3
37	35.2	11.4	97	92.3	30.0	57	149.3	48.5	17	206.4	67.1	77	263.4	85.6
38	36.1	11.7	98	93.2	30.3	58	150.3	48.8	18	207.3	67.4	78	264.4	85.9
39	37.1	12.1	99	94.2	30.6	59	151.2	49.1	19	208.3	67.7	79	265.3	86.2
40	38.0	12.4	100	95.1	30.9	60	152.2	49.4	20	209.2	68.0	80	266.3	86.5
41	39.0	12.7	101	96.1	31.2	161	153.1	49.8	221	210.2	68.3	281	267.2	86.8
42	39.9	13.0	02	97.0	31.5	62	154.1	50.1	22	211.1	68.6	82	268.2	87.1
43	40.9	13.3	03	98.0	31.8	63	155.0	50.4	23	212.1	68.9	83	269.1	87.5
44	41.8	13.6	04	98.9	32.1	64	156.0	50.7	24	213.0	69.2	84	270.1	87.8
45	42.8	13.9	05	99.9	32.4	65	156.9	51.0	25	214.0	69.5	85	271.1	88.1
46	43.7	14.2	06	100.8	32.8	66	157.9	51.3	26	214.9	69.8	86	272.0	88.4
47	44.7	14.5	07	101.8	33.1	67	158.8	51.6	27	215.9	70.1	87	273.0	88.7
48	45.7	14.8	08	102.7	33.4	68	159.8	51.9	28	216.8	70.5	88	273.9	89.0
49	46.6	15.1	09	103.7	33.7	69	160.7	52.2	29	217.8	70.8	89	274.9	89.3
50	47.6	15.5	10	104.6	34.0	70	161.7	52.5	30	218.7	71.1	90	275.8	89.6
51	48.5	15.8	111	105.6	34.3	171	162.6	52.8	231	219.7	71.4	291	276.8	89.9
52	49.5	16.1	12	106.5	34.6	72	163.6	53.2	32	220.6	71.7	92	277.7	90.2
53	50.4	16.4	13	107.5	34.9	73	164.5	53.5	33	221.6	72.0	93	278.7	90.5
54	51.4	16.7	14	108.4	35.2	74	165.5	53.8	34	222.5	72.3	94	279.6	90.9
55	52.3	17.0	15	109.4	35.5	75	166.4	54.1	35	223.5	72.6	95	280.6	91.2
56	53.3	17.3	16	110.3	35.8	76	167.4	54.4	36	224.4	72.9	96	281.5	91.5
57	54.2	17.6	17	111.3	36.2	77	168.3	54.7	37	225.4	73.2	97	282.5	91.8
58	55.2	17.9	18	112.2	36.5	78	169.3	55.0	38	226.4	73.5	98	283.4	92.1
59	56.1	18.2	19	113.2	36.8	79	170.2	55.3	39	227.3	73.9	99	284.4	92.4
60	57.1	18.5	20	114.1	37.1	80	171.2	55.6	40	228.3	74.2	300	285.3	92.7
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

288° | 072°
252° | 108°

72°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

342° | 018°
198° | 162°

18° Traverse Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	286.3	93.0	361	343.3	111.6	421	400.4	130.1	481	457.5	148.6	541	514.5	167.2
02	287.2	93.3	62	344.3	111.9	22	401.3	130.4	82	458.4	148.9	42	515.5	167.5
03	288.2	93.6	63	345.2	112.2	23	402.3	130.7	83	459.4	149.3	43	516.4	167.8
04	289.1	93.9	64	346.2	112.5	24	403.2	131.0	84	460.3	149.6	44	517.4	168.1
05	290.1	94.3	65	347.1	112.8	25	404.2	131.3	85	461.3	149.9	45	518.3	168.4
06	291.0	94.6	66	348.1	113.1	26	405.2	131.6	86	462.2	150.2	46	519.3	168.7
07	292.0	94.9	67	349.0	113.4	27	406.1	132.0	87	463.2	150.5	47	520.2	169.0
08	292.9	95.2	68	350.0	113.7	28	407.1	132.3	88	464.1	150.8	48	521.2	169.3
09	293.9	95.5	69	350.9	114.0	29	408.0	132.6	89	465.1	151.1	49	522.1	169.7
10	294.8	95.8	70	351.9	114.3	30	409.0	132.9	90	466.0	151.4	50	523.1	170.0
311	295.8	96.1	371	352.8	114.6	431	409.9	133.2	491	467.0	151.7	551	524.0	170.3
12	296.7	96.4	72	353.8	115.0	32	410.9	133.5	92	467.9	152.0	52	525.0	170.6
13	297.7	96.7	73	354.7	115.3	33	411.8	133.8	93	468.9	152.3	53	525.9	170.9
14	298.6	97.0	74	355.7	115.6	34	412.8	134.1	94	469.8	152.7	54	526.9	171.2
15	299.6	97.3	75	356.6	115.9	35	413.7	134.4	95	470.8	153.0	55	527.8	171.5
16	300.5	97.6	76	357.6	116.2	36	414.7	134.7	96	471.7	153.3	56	528.8	171.8
17	301.5	98.0	77	358.5	116.5	37	415.6	135.0	97	472.7	153.6	57	529.7	172.1
18	302.4	98.3	78	359.5	116.8	38	416.6	135.3	98	473.6	153.9	58	530.7	172.4
19	303.4	98.6	79	360.5	117.1	39	417.5	135.7	99	474.6	154.2	59	531.6	172.7
20	304.3	98.9	80	361.4	117.4	40	418.5	136.0	500	475.5	154.5	60	532.6	173.0
321	305.3	99.2	381	362.4	117.7	441	419.4	136.3	501	476.5	154.8	561	533.5	173.4
22	306.2	99.5	82	363.3	118.0	42	420.4	136.6	02	477.4	155.1	62	534.5	173.7
23	307.2	99.8	83	364.3	118.4	43	421.3	136.9	03	478.4	155.4	63	535.4	174.0
24	308.1	100.1	84	365.2	118.7	44	422.3	137.2	04	479.3	155.7	64	536.4	174.3
25	309.1	100.4	85	366.2	119.0	45	423.2	137.5	05	480.3	156.1	65	537.3	174.6
26	310.0	100.7	86	367.1	119.3	46	424.2	137.8	06	481.2	156.4	66	538.3	174.9
27	311.0	101.0	87	368.1	119.6	47	425.1	138.1	07	482.2	156.7	67	539.2	175.2
28	311.9	101.4	88	369.0	119.9	48	426.1	138.4	08	483.1	157.0	68	540.2	175.5
29	312.9	101.7	89	370.0	120.2	49	427.0	138.7	09	484.1	157.3	69	541.2	175.8
30	313.8	102.0	90	370.9	120.5	50	428.0	139.1	10	485.0	157.6	70	542.1	176.1
331	314.8	102.3	391	371.9	120.8	451	428.9	139.4	511	486.0	157.9	571	543.1	176.4
32	315.8	102.6	92	372.8	121.1	52	429.9	139.7	12	486.9	158.2	72	544.0	176.8
33	316.7	102.9	93	373.8	121.4	53	430.8	140.0	13	487.9	158.5	73	545.0	177.1
34	317.7	103.2	94	374.7	121.8	54	431.8	140.3	14	488.8	158.8	74	545.9	177.4
35	318.6	103.5	95	375.7	122.1	55	432.7	140.6	15	489.8	159.1	75	546.9	177.7
36	319.6	103.8	96	376.6	122.4	56	433.7	140.9	16	490.7	159.5	76	547.8	178.0
37	320.5	104.1	97	377.6	122.7	57	434.6	141.2	17	491.7	159.8	77	548.8	178.3
38	321.5	104.4	98	378.5	123.0	58	435.6	141.5	18	492.6	160.1	78	549.7	178.6
39	322.4	104.8	99	379.5	123.3	59	436.5	141.8	19	493.6	160.4	79	550.7	178.9
40	323.4	105.1	400	380.4	123.6	60	437.5	142.1	20	494.5	160.7	80	551.6	179.2
341	324.3	105.4	401	381.4	123.9	461	438.4	142.5	521	495.5	161.0	581	552.6	179.5
42	325.3	105.7	02	382.3	124.2	62	439.4	142.8	22	496.5	161.3	82	553.5	179.8
43	326.2	106.0	03	383.3	124.5	63	440.3	143.1	23	497.4	161.6	83	554.5	180.2
44	327.2	106.3	04	384.2	124.8	64	441.3	143.4	24	498.4	161.9	84	555.4	180.5
45	328.1	106.6	05	385.2	125.2	65	442.2	143.7	25	499.3	162.2	85	556.4	180.8
46	329.1	106.9	06	386.1	125.5	66	443.2	144.0	26	500.3	162.5	86	557.3	181.1
47	330.0	107.2	07	387.1	125.8	67	444.1	144.3	27	501.2	162.9	87	558.3	181.4
48	331.0	107.5	08	388.0	126.1	68	445.1	144.6	28	502.2	163.2	88	559.2	181.7
49	331.9	107.8	09	389.0	126.4	69	446.0	144.9	29	503.1	163.5	89	560.2	182.0
50	332.9	108.2	10	389.9	126.7	70	447.0	145.2	30	504.1	163.8	90	561.1	182.3
351	333.8	108.5	411	390.9	127.0	471	447.9	145.5	531	505.0	164.1	591	562.1	182.6
52	334.8	108.8	12	391.8	127.3	72	448.9	145.9	32	506.0	164.4	92	563.0	182.9
53	335.7	109.1	13	392.8	127.6	73	449.8	146.2	33	506.9	164.7	93	564.0	183.2
54	336.7	109.4	14	393.7	127.9	74	450.8	146.5	34	507.9	165.0	94	564.9	183.6
55	337.6	109.7	15	394.7	128.2	75	451.8	146.8	35	508.8	165.3	95	565.9	183.9
56	338.6	110.0	16	395.6	128.6	76	452.7	147.1	36	509.8	165.6	96	566.8	184.2
57	339.5	110.3	17	396.6	128.9	77	453.7	147.4	37	510.7	165.9	97	567.8	184.5
58	340.5	110.6	18	397.5	129.2	78	454.6	147.7	38	511.7	166.3	98	568.7	184.8
59	341.4	110.9	19	398.5	129.5	79	455.6	148.0	39	512.6	166.6	99	569.7	185.1
60	342.4	111.2	20	399.4	129.8	80	456.5	148.3	40	513.6	166.9	600	570.6	185.4
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

72°

288° | 072°
252° | 108°

TABLE 4

341° / 199° | 019° / 161°

Traverse **19°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.9	0.3	61	57.7	19.9	121	114.4	39.4	181	171.1	58.9	241	227.9	78.5
2	1.9	0.7	62	58.6	20.2	22	115.4	39.7	82	172.1	59.3	42	228.8	78.8
3	2.8	1.0	63	59.6	20.5	23	116.3	40.0	83	173.0	59.6	43	229.8	79.1
4	3.8	1.3	64	60.5	20.8	24	117.2	40.4	84	174.0	59.9	44	230.7	79.4
5	4.7	1.6	65	61.5	21.2	25	118.2	40.7	85	174.9	60.2	45	231.7	79.8
6	5.7	2.0	66	62.4	21.5	26	119.1	41.0	86	175.9	60.6	46	232.6	80.1
7	6.6	2.3	67	63.3	21.8	27	120.1	41.3	87	176.8	60.9	47	233.5	80.4
8	7.6	2.6	68	64.3	22.1	28	121.0	41.7	88	177.8	61.2	48	234.5	80.7
9	8.5	2.9	69	65.2	22.5	29	122.0	42.0	89	178.7	61.5	49	235.4	81.1
10	9.5	3.3	70	66.2	22.8	30	122.9	42.3	90	179.6	61.9	50	236.4	81.4
11	10.4	3.6	71	67.1	23.1	131	123.9	42.6	191	180.6	62.2	251	237.3	81.7
12	11.3	3.9	72	68.1	23.4	32	124.8	43.0	92	181.5	62.5	52	238.3	82.0
13	12.3	4.2	73	69.0	23.8	33	125.8	43.3	93	182.5	62.8	53	239.2	82.4
14	13.2	4.6	74	70.0	24.1	34	126.7	43.6	94	183.4	63.2	54	240.2	82.7
15	14.2	4.9	75	70.9	24.4	35	127.6	44.0	95	184.4	63.5	55	241.1	83.0
16	15.1	5.2	76	71.9	24.7	36	128.6	44.3	96	185.3	63.8	56	242.1	83.3
17	16.1	5.5	77	72.8	25.1	37	129.5	44.6	97	186.3	64.1	57	243.0	83.7
18	17.0	5.9	78	73.8	25.4	38	130.5	44.9	98	187.2	64.5	58	243.9	84.0
19	18.0	6.2	79	74.7	25.7	39	131.4	45.3	99	188.2	64.8	59	244.9	84.3
20	18.9	6.5	80	75.6	26.0	40	132.4	45.6	200	189.1	65.1	60	245.8	84.6
21	19.9	6.8	81	76.6	26.4	141	133.3	45.9	201	190.0	65.4	261	246.8	85.0
22	20.8	7.2	82	77.5	26.7	42	134.3	46.2	02	191.0	65.8	62	247.7	85.3
23	21.7	7.5	83	78.5	27.0	43	135.2	46.6	03	191.9	66.1	63	248.7	85.6
24	22.7	7.8	84	79.4	27.3	44	136.2	46.9	04	192.9	66.4	64	249.6	85.9
25	23.6	8.1	85	80.4	27.7	45	137.1	47.2	05	193.8	66.7	65	250.6	86.3
26	24.6	8.5	86	81.3	28.0	46	138.0	47.5	06	194.8	67.1	66	251.5	86.6
27	25.5	8.8	87	82.3	28.3	47	139.0	47.9	07	195.7	67.4	67	252.5	86.9
28	26.5	9.1	88	83.2	28.6	48	139.9	48.2	08	196.7	67.7	68	253.4	87.3
29	27.4	9.4	89	84.2	29.0	49	140.9	48.5	09	197.6	68.0	69	254.3	87.6
30	28.4	9.8	90	85.1	29.3	50	141.8	48.8	10	198.6	68.4	70	255.3	87.9
31	29.3	10.1	91	86.0	29.6	151	142.8	49.2	211	199.5	68.7	271	256.2	88.2
32	30.3	10.4	92	87.0	30.0	52	143.7	49.5	12	200.4	69.0	72	257.2	88.6
33	31.2	10.7	93	87.9	30.3	53	144.7	49.8	13	201.4	69.3	73	258.1	88.9
34	32.1	11.1	94	88.9	30.6	54	145.6	50.1	14	202.3	69.7	74	259.1	89.2
35	33.1	11.4	95	89.8	30.9	55	146.6	50.5	15	203.3	70.0	75	260.0	89.5
36	34.0	11.7	96	90.8	31.3	56	147.5	50.8	16	204.2	70.3	76	261.0	89.9
37	35.0	12.0	97	91.7	31.6	57	148.4	51.1	17	205.2	70.6	77	261.9	90.2
38	35.9	12.4	98	92.7	31.9	58	149.4	51.4	18	206.1	71.0	78	262.9	90.5
39	36.9	12.7	99	93.6	32.2	59	150.3	51.8	19	207.1	71.3	79	263.8	90.8
40	37.8	13.0	100	94.6	32.6	60	151.3	52.1	20	208.0	71.6	80	264.7	91.2
41	38.8	13.3	101	95.5	32.9	161	152.2	52.4	221	209.0	72.0	281	265.7	91.5
42	39.7	13.7	02	96.4	33.2	62	153.2	52.7	22	209.9	72.3	82	266.6	91.8
43	40.7	14.0	03	97.4	33.5	63	154.1	53.1	23	210.9	72.6	83	267.6	92.1
44	41.6	14.3	04	98.3	33.9	64	155.1	53.4	24	211.8	72.9	84	268.5	92.5
45	42.5	14.7	05	99.3	34.2	65	156.0	53.7	25	212.7	73.3	85	269.5	92.8
46	43.5	15.0	06	100.2	34.5	66	157.0	54.0	26	213.7	73.6	86	270.4	93.1
47	44.4	15.3	07	101.2	34.8	67	157.9	54.4	27	214.6	73.9	87	271.4	93.4
48	45.4	15.6	08	102.1	35.2	68	158.8	54.7	28	215.6	74.2	88	272.3	93.8
49	46.3	16.0	09	103.1	35.5	69	159.8	55.0	29	216.5	74.6	89	273.3	94.1
50	47.3	16.3	10	104.0	35.8	70	160.7	55.3	30	217.5	74.9	90	274.2	94.4
51	48.2	16.6	111	105.0	36.1	171	161.7	55.7	231	218.4	75.2	291	275.1	94.7
52	49.2	16.9	12	105.9	36.5	72	162.6	56.0	32	219.4	75.5	92	276.1	95.1
53	50.1	17.3	13	106.8	36.8	73	163.6	56.3	33	220.3	75.9	93	277.0	95.4
54	51.1	17.6	14	107.8	37.1	74	164.5	56.6	34	221.3	76.2	94	278.0	95.7
55	52.0	17.9	15	108.7	37.4	75	165.5	57.0	35	222.2	76.5	95	278.9	96.0
56	52.9	18.2	16	109.7	37.8	76	166.4	57.3	36	223.1	76.8	96	279.9	96.4
57	53.9	18.6	17	110.6	38.1	77	167.4	57.6	37	224.1	77.2	97	280.8	96.7
58	54.8	18.9	18	111.6	38.4	78	168.3	58.0	38	225.0	77.5	98	281.8	97.0
59	55.8	19.2	19	112.5	38.7	79	169.2	58.3	39	226.0	77.8	99	282.7	97.3
60	56.7	19.5	20	113.5	39.1	80	170.2	58.6	40	226.9	78.1	300	283.7	97.7
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

289° / 251° | 071° / 109°

71°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

341° / 199° | 019° / 161°

Traverse **19°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	284.6	98.0	361	341.3	117.5	421	398.1	137.1	481	454.8	156.6	541	511.5	176.1
02	285.5	98.3	62	342.3	117.9	22	399.0	137.4	82	455.7	156.9	42	512.5	176.5
03	286.5	98.6	63	343.2	118.2	23	400.0	137.7	83	456.7	157.2	43	513.4	176.8
04	287.4	99.0	64	344.2	118.5	24	400.9	138.0	84	457.6	157.6	44	514.4	177.1
05	288.4	99.3	65	345.1	118.8	25	401.8	138.4	85	458.6	157.9	45	515.3	177.4
06	289.3	99.6	66	346.1	119.2	26	402.8	138.7	86	459.5	158.2	46	516.3	177.8
07	290.3	99.9	67	347.0	119.5	27	403.7	139.0	87	460.5	158.6	47	517.2	178.1
08	291.2	100.3	68	348.0	119.8	28	404.7	139.3	88	461.4	158.9	48	518.1	178.4
09	292.2	100.6	69	348.9	120.1	29	405.6	139.7	89	462.4	159.2	49	519.1	178.7
10	293.1	100.9	70	349.8	120.5	30	406.6	140.0	90	463.3	159.5	50	520.0	179.1
311	294.1	101.3	371	350.8	120.8	431	407.5	140.3	491	464.2	159.9	551	521.0	179.4
12	295.0	101.6	72	351.7	121.1	32	408.5	140.6	92	465.2	160.2	52	521.9	179.7
13	295.9	101.9	73	352.7	121.4	33	409.4	141.0	93	466.1	160.5	53	522.9	180.0
14	296.9	102.2	74	353.6	121.8	34	410.4	141.3	94	467.1	160.8	54	523.8	180.4
15	297.8	102.6	75	354.6	122.1	35	411.3	141.6	95	468.0	161.2	55	524.8	180.7
16	298.8	102.9	76	355.5	122.4	36	412.2	141.9	96	469.0	161.5	56	525.7	181.0
17	299.7	103.2	77	356.5	122.7	37	413.2	142.3	97	469.9	161.8	57	526.7	181.3
18	300.7	103.5	78	357.4	123.1	38	414.1	142.6	98	470.9	162.1	58	527.6	181.7
19	301.6	103.9	79	358.4	123.4	39	415.1	142.9	99	471.8	162.5	59	528.5	182.0
20	302.6	104.2	80	359.3	123.7	40	416.0	143.2	500	472.8	162.8	60	529.5	182.3
321	303.5	104.5	381	360.2	124.0	441	417.0	143.6	501	473.7	163.1	561	530.4	182.6
22	304.5	104.8	82	361.2	124.4	42	417.9	143.9	02	474.7	163.4	62	531.4	183.0
23	305.4	105.2	83	362.1	124.7	43	418.9	144.2	03	475.6	163.8	63	532.3	183.3
24	306.3	105.5	84	363.1	125.0	44	419.8	144.6	04	476.5	164.1	64	533.3	183.6
25	307.3	105.8	85	364.0	125.3	45	420.8	144.9	05	477.5	164.4	65	534.2	183.9
26	308.2	106.1	86	365.0	125.7	46	421.7	145.2	06	478.4	164.7	66	535.2	184.3
27	309.2	106.5	87	365.9	126.0	47	422.6	145.5	07	479.4	165.1	67	536.1	184.6
28	310.1	106.8	88	366.9	126.3	48	423.6	145.9	08	480.3	165.4	68	537.1	184.9
29	311.1	107.1	89	367.8	126.6	49	424.5	146.2	09	481.3	165.7	69	538.0	185.2
30	312.0	107.4	90	368.8	127.0	50	425.5	146.5	10	482.2	166.0	70	538.9	185.6
331	313.0	107.8	391	369.7	127.3	451	426.4	146.8	511	483.2	166.4	571	539.9	185.9
32	313.9	108.1	92	370.6	127.6	52	427.4	147.2	12	484.1	166.7	72	540.8	186.2
33	314.9	108.4	93	371.6	127.9	53	428.3	147.5	13	485.1	167.0	73	541.8	186.6
34	315.8	108.7	94	372.5	128.3	54	429.3	147.8	14	486.0	167.3	74	542.7	186.9
35	316.7	109.1	95	373.5	128.6	55	430.2	148.1	15	486.9	167.7	75	543.7	187.2
36	317.7	109.4	96	374.4	128.9	56	431.2	148.5	16	487.9	168.0	76	544.6	187.5
37	318.6	109.7	97	375.4	129.3	57	432.1	148.8	17	488.8	168.3	77	545.6	187.9
38	319.6	110.0	98	376.3	129.6	58	433.0	149.1	18	489.8	168.6	78	546.5	188.2
39	320.5	110.4	99	377.3	129.9	59	434.0	149.4	19	490.7	169.0	79	547.5	188.5
40	321.5	110.7	400	378.2	130.2	60	434.9	149.8	20	491.7	169.3	80	548.4	188.8
341	322.4	111.0	401	379.2	130.6	461	435.9	150.1	521	492.6	169.6	581	549.3	189.2
42	323.4	111.3	02	380.1	130.9	62	436.8	150.4	22	493.6	169.9	82	550.3	189.5
43	324.3	111.7	03	381.0	131.2	63	437.8	150.7	23	494.5	170.3	83	551.2	189.8
44	325.3	112.0	04	382.0	131.5	64	438.7	151.1	24	495.5	170.6	84	552.2	190.1
45	326.2	112.3	05	382.9	131.9	65	439.7	151.4	25	496.4	170.9	85	553.1	190.5
46	327.1	112.6	06	383.9	132.2	66	440.6	151.7	26	497.3	171.2	86	554.1	190.8
47	328.1	113.0	07	384.8	132.5	67	441.6	152.0	27	498.3	171.6	87	555.0	191.1
48	329.0	113.3	08	385.8	132.8	68	442.5	152.4	28	499.2	171.9	88	556.0	191.4
49	330.0	113.6	09	386.7	133.2	69	443.4	152.7	29	500.2	172.2	89	556.9	191.8
50	330.9	113.9	10	387.7	133.5	70	444.4	153.0	30	501.1	172.6	90	557.9	192.1
351	331.9	114.3	411	388.6	133.8	471	445.3	153.3	531	502.1	172.9	591	558.8	192.4
52	332.8	114.6	12	389.6	134.1	72	446.3	153.7	32	503.0	173.2	92	559.7	192.7
53	333.8	114.9	13	390.5	134.5	73	447.2	154.0	33	504.0	173.5	93	560.7	193.1
54	334.7	115.3	14	391.4	134.8	74	448.2	154.3	34	504.9	173.9	94	561.6	193.4
55	335.7	115.6	15	392.4	135.1	75	449.1	154.6	35	505.9	174.2	95	562.6	193.7
56	336.6	115.9	16	393.3	135.4	76	450.1	155.0	36	506.8	174.5	96	563.5	194.0
57	337.6	116.2	17	394.3	135.8	77	451.0	155.3	37	507.7	174.8	97	564.5	194.4
58	338.5	116.6	18	395.2	136.1	78	452.0	155.6	38	508.7	175.2	98	565.4	194.7
59	339.4	116.9	19	396.2	136.4	79	452.9	155.9	39	509.6	175.5	99	566.4	195.0
60	340.4	117.2	20	397.1	136.7	80	453.8	156.3	40	510.6	175.8	600	567.3	195.3
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

289° / 251° | 071° / 109°

71°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

20° Traverse Table

340° / 200° | 020° / 160°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.9	0.3	61	57.3	20.9	121	113.7	41.4	181	170.1	61.9	241	226.5	82.4
2	1.9	0.7	62	58.3	21.2	22	114.6	41.7	82	171.0	62.2	42	227.4	82.8
3	2.8	1.0	63	59.2	21.5	23	115.6	42.1	83	172.0	62.6	43	228.3	83.1
4	3.8	1.4	64	60.1	21.9	24	116.5	42.4	84	172.9	62.9	44	229.3	83.5
5	4.7	1.7	65	61.1	22.2	25	117.5	42.8	85	173.8	63.3	45	230.2	83.8
6	5.6	2.1	66	62.0	22.6	26	118.4	43.1	86	174.8	63.6	46	231.2	84.1
7	6.6	2.4	67	63.0	22.9	27	119.3	43.4	87	175.7	64.0	47	232.1	84.5
8	7.5	2.7	68	63.9	23.3	28	120.3	43.8	88	176.7	64.3	48	233.0	84.8
9	8.5	3.1	69	64.8	23.6	29	121.2	44.1	89	177.6	64.6	49	234.0	85.2
10	9.4	3.4	70	65.8	23.9	30	122.2	44.5	90	178.5	65.0	50	234.9	85.5
11	10.3	3.8	71	66.7	24.3	131	123.1	44.8	191	179.5	65.3	251	235.9	85.8
12	11.3	4.1	72	67.7	24.6	32	124.0	45.1	92	180.4	65.7	52	236.8	86.2
13	12.2	4.4	73	68.6	25.0	33	125.0	45.5	93	181.4	66.0	53	237.7	86.5
14	13.2	4.8	74	69.5	25.3	34	125.9	45.8	94	182.3	66.4	54	238.7	86.9
15	14.1	5.1	75	70.5	25.7	35	126.9	46.2	95	183.2	66.7	55	239.6	87.2
16	15.0	5.5	76	71.4	26.0	36	127.8	46.5	96	184.2	67.0	56	240.6	87.6
17	16.0	5.8	77	72.4	26.3	37	128.7	46.9	97	185.1	67.4	57	241.5	87.9
18	16.9	6.2	78	73.3	26.7	38	129.7	47.2	98	186.1	67.7	58	242.4	88.2
19	17.9	6.5	79	74.2	27.0	39	130.6	47.5	99	187.0	68.1	59	243.4	88.6
20	18.8	6.8	80	75.2	27.4	40	131.6	47.9	200	187.9	68.4	60	244.3	88.9
21	19.7	7.2	81	76.1	27.7	141	132.5	48.2	201	188.9	68.7	261	245.3	89.3
22	20.7	7.5	82	77.1	28.0	42	133.4	48.6	02	189.8	69.1	62	246.2	89.6
23	21.6	7.9	83	78.0	28.4	43	134.4	48.9	03	190.8	69.4	63	247.1	90.0
24	22.6	8.2	84	78.9	28.7	44	135.3	49.3	04	191.7	69.8	64	248.1	90.3
25	23.5	8.6	85	79.9	29.1	45	136.3	49.6	05	192.6	70.1	65	249.0	90.6
26	24.4	8.9	86	80.8	29.4	46	137.2	49.9	06	193.6	70.5	66	250.0	91.0
27	25.4	9.2	87	81.8	29.8	47	138.1	50.3	07	194.5	70.8	67	250.9	91.3
28	26.3	9.6	88	82.7	30.1	48	139.1	50.6	08	195.5	71.1	68	251.8	91.7
29	27.3	9.9	89	83.6	30.4	49	140.0	51.0	09	196.4	71.5	69	252.8	92.0
30	28.2	10.3	90	84.6	30.8	50	141.0	51.3	10	197.3	71.8	70	253.7	92.3
31	29.1	10.6	91	85.5	31.1	151	141.9	51.6	211	198.3	72.2	271	254.7	92.7
32	30.1	10.9	92	86.5	31.5	52	142.8	52.0	12	199.2	72.5	72	255.6	93.0
33	31.0	11.3	93	87.4	31.8	53	143.8	52.3	13	200.2	72.9	73	256.5	93.4
34	31.9	11.6	94	88.3	32.1	54	144.7	52.7	14	201.1	73.2	74	257.5	93.7
35	32.9	12.0	95	89.3	32.5	55	145.7	53.0	15	202.0	73.5	75	258.4	94.1
36	33.8	12.3	96	90.2	32.8	56	146.6	53.4	16	203.0	73.9	76	259.4	94.4
37	34.8	12.7	97	91.2	33.2	57	147.5	53.7	17	203.9	74.2	77	260.3	94.7
38	35.7	13.0	98	92.1	33.5	58	148.5	54.0	18	204.9	74.6	78	261.2	95.1
39	36.6	13.3	99	93.0	33.9	59	149.4	54.4	19	205.8	74.9	79	262.2	95.4
40	37.6	13.7	100	94.0	34.2	60	150.4	54.7	20	206.7	75.2	80	263.1	95.8
41	38.5	14.0	101	94.9	34.5	161	151.3	55.1	221	207.7	75.6	281	264.1	96.1
42	39.5	14.4	02	95.8	34.9	62	152.2	55.4	22	208.6	75.9	82	265.0	96.4
43	40.4	14.7	03	96.8	35.2	63	153.2	55.7	23	209.6	76.3	83	265.9	96.8
44	41.3	15.0	04	97.7	35.6	64	154.1	56.1	24	210.5	76.6	84	266.9	97.1
45	42.3	15.4	05	98.7	35.9	65	155.0	56.4	25	211.4	77.0	85	267.8	97.5
46	43.2	15.7	06	99.6	36.3	66	156.0	56.8	26	212.4	77.3	86	268.8	97.8
47	44.2	16.1	07	100.5	36.6	67	156.9	57.1	27	213.3	77.6	87	269.7	98.2
48	45.1	16.4	08	101.5	36.9	68	157.9	57.5	28	214.2	78.0	88	270.6	98.5
49	46.0	16.8	09	102.4	37.3	69	158.8	57.8	29	215.2	78.3	89	271.6	98.8
50	47.0	17.1	10	103.4	37.6	70	159.7	58.1	30	216.1	78.7	90	272.5	99.2
51	47.9	17.4	111	104.3	38.0	171	160.7	58.5	231	217.1	79.0	291	273.5	99.5
52	48.9	17.8	12	105.2	38.3	72	161.6	58.8	32	218.0	79.3	92	274.4	99.9
53	49.8	18.1	13	106.2	38.6	73	162.6	59.2	33	218.9	79.7	93	275.3	100.2
54	50.7	18.5	14	107.1	39.0	74	163.5	59.5	34	219.9	80.0	94	276.3	100.6
55	51.7	18.8	15	108.1	39.3	75	164.4	59.9	35	220.8	80.4	95	277.2	100.9
56	52.6	19.2	16	109.0	39.7	76	165.4	60.2	36	221.8	80.7	96	278.1	101.2
57	53.6	19.5	17	109.9	40.0	77	166.3	60.5	37	222.7	81.1	97	279.1	101.6
58	54.5	19.8	18	110.9	40.4	78	167.3	60.9	38	223.6	81.4	98	280.0	101.9
59	55.4	20.2	19	111.8	40.7	79	168.2	61.2	39	224.6	81.7	99	281.0	102.3
60	56.4	20.5	20	112.8	41.0	80	169.1	61.6	40	225.5	82.1	300	281.9	102.6
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

290° / 250° | 070° / 110°

70°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

20° Traverse Table

340° / 200° | 020° / 160°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	282.8	102.9	361	339.2	123.5	421	395.6	144.0	481	452.0	164.5	541	508.4	185.0
02	283.8	103.3	62	340.2	123.8	22	396.6	144.3	82	452.9	164.9	42	509.3	185.4
03	284.7	103.6	63	341.1	124.2	23	397.5	144.7	83	453.9	165.2	43	510.3	185.7
04	285.7	104.0	64	342.0	124.5	24	398.4	145.0	84	454.8	165.5	44	511.2	186.1
05	286.6	104.3	65	343.0	124.8	25	399.4	145.4	85	455.8	165.9	45	512.1	186.4
06	287.5	104.7	66	343.9	125.2	26	400.3	145.7	86	456.7	166.2	46	513.1	186.7
07	288.5	105.0	67	344.9	125.5	27	401.2	146.0	87	457.6	166.6	47	514.0	187.1
08	289.4	105.3	68	345.8	125.9	28	402.2	146.4	88	458.6	166.9	48	515.0	187.4
09	290.4	105.7	69	346.7	126.2	29	403.1	146.7	89	459.5	167.2	49	515.9	187.8
10	291.3	106.0	70	347.7	126.5	30	404.1	147.1	90	460.4	167.6	50	516.8	188.1
311	292.2	106.4	371	348.6	126.9	431	405.0	147.4	491	461.4	167.9	551	517.8	188.5
12	293.2	106.7	72	349.6	127.2	32	405.9	147.8	92	462.3	168.3	52	518.7	188.8
13	294.1	107.1	73	350.5	127.6	33	406.9	148.1	93	463.3	168.6	53	519.7	189.1
14	295.1	107.4	74	351.4	127.9	34	407.8	148.4	94	464.2	169.0	54	520.6	189.5
15	296.0	107.7	75	352.4	128.3	35	408.8	148.8	95	465.1	169.3	55	521.5	189.8
16	296.9	108.1	76	353.3	128.6	36	409.7	149.1	96	466.1	169.6	56	522.5	190.2
17	297.9	108.4	77	354.3	128.9	37	410.6	149.5	97	467.0	170.0	57	523.4	190.5
18	298.8	108.8	78	355.2	129.3	38	411.6	149.8	98	468.0	170.3	58	524.3	190.8
19	299.8	109.1	79	356.1	129.6	39	412.5	150.1	99	468.9	170.7	59	525.3	191.2
20	300.7	109.4	80	357.1	130.0	40	413.5	150.5	500	469.8	171.0	60	526.2	191.5
321	301.6	109.8	381	358.0	130.3	441	414.4	150.8	501	470.8	171.4	561	527.2	191.9
22	302.6	110.1	82	359.0	130.7	42	415.3	151.2	02	471.7	171.7	62	528.1	192.2
23	303.5	110.5	83	359.9	131.0	43	416.3	151.5	03	472.7	172.0	63	529.0	192.6
24	304.5	110.8	84	360.8	131.3	44	417.2	151.9	04	473.6	172.4	64	530.0	192.9
25	305.4	111.2	85	361.8	131.7	45	418.2	152.2	05	474.5	172.7	65	530.9	193.2
26	306.3	111.5	86	362.7	132.0	46	419.1	152.5	06	475.5	173.1	66	531.9	193.6
27	307.3	111.8	87	363.7	132.4	47	420.0	152.9	07	476.4	173.4	67	532.8	193.9
28	308.2	112.2	88	364.6	132.7	48	421.0	153.2	08	477.4	173.7	68	533.7	194.3
29	309.2	112.5	89	365.5	133.0	49	421.9	153.6	09	478.3	174.1	69	534.7	194.6
30	310.1	112.9	90	366.5	133.4	50	422.9	153.9	10	479.2	174.4	70	535.6	195.0
331	311.0	113.2	391	367.4	133.7	451	423.8	154.3	511	480.2	174.8	571	536.6	195.3
32	312.0	113.6	92	368.4	134.1	52	424.7	154.6	12	481.1	175.1	72	537.5	195.6
33	312.9	113.9	93	369.3	134.4	53	425.7	154.9	13	482.1	175.5	73	538.4	196.0
34	313.9	114.2	94	370.2	134.8	54	426.6	155.3	14	483.0	175.8	74	539.4	196.3
35	314.8	114.6	95	371.2	135.1	55	427.6	155.6	15	483.9	176.1	75	540.3	196.7
36	315.7	114.9	96	372.1	135.4	56	428.5	156.0	16	484.9	176.5	76	541.3	197.0
37	316.7	115.3	97	373.1	135.8	57	429.4	156.3	17	485.8	176.8	77	542.2	197.3
38	317.6	115.6	98	374.0	136.1	58	430.4	156.6	18	486.8	177.2	78	543.1	197.7
39	318.6	115.9	99	374.9	136.5	59	431.3	157.0	19	487.7	177.5	79	544.1	198.0
40	319.5	116.3	400	375.9	136.8	60	432.3	157.3	20	488.6	177.9	80	545.0	198.4
341	320.4	116.6	401	376.8	137.2	461	433.2	157.7	521	489.6	178.2	581	546.0	198.7
42	321.4	117.0	02	377.8	137.5	62	434.1	158.0	22	490.5	178.5	82	546.9	199.1
43	322.3	117.3	03	378.7	137.8	63	435.1	158.4	23	491.5	178.9	83	547.8	199.4
44	323.3	117.7	04	379.6	138.2	64	436.0	158.7	24	492.4	179.2	84	548.8	199.7
45	324.2	118.0	05	380.6	138.5	65	437.0	159.0	25	493.3	179.6	85	549.7	200.1
46	325.1	118.3	06	381.5	138.9	66	437.9	159.4	26	494.3	179.9	86	550.7	200.4
47	326.1	118.7	07	382.5	139.2	67	438.8	159.7	27	495.2	180.2	87	551.6	200.8
48	327.0	119.0	08	383.4	139.5	68	439.8	160.1	28	496.2	180.6	88	552.5	201.1
49	328.0	119.4	09	384.3	139.9	69	440.7	160.4	29	497.1	180.9	89	553.5	201.4
50	328.9	119.7	10	385.3	140.2	70	441.7	160.7	30	498.0	181.3	90	554.4	201.8
351	329.8	120.0	411	386.2	140.6	471	442.6	161.1	531	499.0	181.6	591	555.4	202.1
52	330.8	120.4	12	387.2	140.9	72	443.5	161.4	32	499.9	182.0	92	556.3	202.5
53	331.7	120.7	13	388.1	141.3	73	444.5	161.8	33	500.9	182.3	93	557.2	202.8
54	332.7	121.1	14	389.0	141.6	74	445.4	162.1	34	501.8	182.6	94	558.2	203.2
55	333.6	121.4	15	390.0	141.9	75	446.4	162.5	35	502.7	183.0	95	559.1	203.5
56	334.5	121.8	16	390.9	142.3	76	447.3	162.8	36	503.7	183.3	96	560.1	203.8
57	335.5	122.1	17	391.9	142.6	77	448.2	163.1	37	504.6	183.7	97	561.0	204.2
58	336.4	122.4	18	392.8	143.0	78	449.2	163.5	38	505.6	184.0	98	561.9	204.5
59	337.3	122.8	19	393.7	143.3	79	450.1	163.8	39	506.5	184.3	99	562.9	204.9
60	338.3	123.1	20	394.7	143.6	80	451.1	164.2	40	507.4	184.7	600	563.8	205.2
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

290° / 250° | 070° / 110°

70°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

339° | 021°
201° | 159°

Traverse **21°** Table

339° | 021°
201° | 159°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.9	0.4	61	56.9	21.9	121	113.0	43.4	181	169.0	64.9	241	225.0	86.4
2	1.9	0.7	62	57.9	22.2	22	113.9	43.7	82	169.9	65.2	42	225.9	86.7
3	2.8	1.1	63	58.8	22.6	23	114.8	44.1	83	170.8	65.6	43	226.9	87.1
4	3.7	1.4	64	59.7	22.9	24	115.8	44.4	84	171.8	65.9	44	227.8	87.4
5	4.7	1.8	65	60.7	23.3	25	116.7	44.8	85	172.7	66.3	45	228.7	87.8
6	5.6	2.2	66	61.6	23.7	26	117.6	45.2	86	173.6	66.7	46	229.7	88.2
7	6.5	2.5	67	62.5	24.0	27	118.6	45.5	87	174.6	67.0	47	230.6	88.5
8	7.5	2.9	68	63.5	24.4	28	119.5	45.9	88	175.5	67.4	48	231.5	88.9
9	8.4	3.2	69	64.4	24.7	29	120.4	46.2	89	176.4	67.7	49	232.5	89.2
10	9.3	3.6	70	65.4	25.1	30	121.4	46.6	90	177.4	68.1	50	233.4	89.6
11	10.3	3.9	71	66.3	25.4	131	122.3	46.9	191	178.3	68.4	251	234.3	90.0
12	11.2	4.3	72	67.2	25.8	32	123.2	47.3	92	179.2	68.8	52	235.3	90.3
13	12.1	4.7	73	68.2	26.2	33	124.2	47.7	93	180.2	69.2	53	236.2	90.7
14	13.1	5.0	74	69.1	26.5	34	125.1	48.0	94	181.1	69.5	54	237.1	91.0
15	14.0	5.4	75	70.0	26.9	35	126.0	48.4	95	182.0	69.9	55	238.1	91.4
16	14.9	5.7	76	71.0	27.2	36	127.0	48.7	96	183.0	70.2	56	239.0	91.7
17	15.9	6.1	77	71.9	27.6	37	127.9	49.1	97	183.9	70.6	57	239.9	92.1
18	16.8	6.5	78	72.8	28.0	38	128.8	49.5	98	184.8	71.0	58	240.9	92.5
19	17.7	6.8	79	73.8	28.3	39	129.8	49.8	99	185.8	71.3	59	241.8	92.8
20	18.7	7.2	80	74.7	28.7	40	130.7	50.2	200	186.7	71.7	60	242.7	93.2
21	19.6	7.5	81	75.6	29.0	141	131.6	50.5	201	187.6	72.0	261	243.7	93.5
22	20.5	7.9	82	76.6	29.4	42	132.6	50.9	02	188.6	72.4	62	244.6	93.9
23	21.5	8.2	83	77.5	29.7	43	133.5	51.2	03	189.5	72.7	63	245.5	94.3
24	22.4	8.6	84	78.4	30.1	44	134.4	51.6	04	190.5	73.1	64	246.5	94.6
25	23.3	9.0	85	79.4	30.5	45	135.4	52.0	05	191.4	73.5	65	247.4	95.0
26	24.3	9.3	86	80.3	30.8	46	136.3	52.3	06	192.3	73.8	66	248.3	95.3
27	25.2	9.7	87	81.2	31.2	47	137.2	52.7	07	193.3	74.2	67	249.3	95.7
28	26.1	10.0	88	82.2	31.5	48	138.2	53.0	08	194.2	74.5	68	250.2	96.0
29	27.1	10.4	89	83.1	31.9	49	139.1	53.4	09	195.1	74.9	69	251.1	96.4
30	28.0	10.8	90	84.0	32.3	50	140.0	53.8	10	196.1	75.3	70	252.1	96.8
31	28.9	11.1	91	85.0	32.6	151	141.0	54.1	211	197.0	75.6	271	253.0	97.1
32	29.9	11.5	92	85.9	33.0	52	141.9	54.5	12	197.9	76.0	72	253.9	97.5
33	30.8	11.8	93	86.8	33.3	53	142.8	54.8	13	198.9	76.3	73	254.9	97.8
34	31.7	12.2	94	87.8	33.7	54	143.8	55.2	14	199.8	76.7	74	255.8	98.2
35	32.7	12.5	95	88.7	34.0	55	144.7	55.5	15	200.7	77.0	75	256.7	98.6
36	33.6	12.9	96	89.6	34.4	56	145.6	55.9	16	201.7	77.4	76	257.7	98.9
37	34.5	13.3	97	90.6	34.8	57	146.6	56.3	17	202.6	77.8	77	258.6	99.3
38	35.5	13.6	98	91.5	35.1	58	147.5	56.6	18	203.5	78.1	78	259.5	99.6
39	36.4	14.0	99	92.4	35.5	59	148.4	57.0	19	204.5	78.5	79	260.5	100.0
40	37.3	14.3	100	93.4	35.8	60	149.4	57.3	20	205.4	78.8	80	261.4	100.3
41	38.3	14.7	101	94.3	36.2	161	150.3	57.7	221	206.3	79.2	281	262.3	100.7
42	39.2	15.1	02	95.2	36.6	62	151.2	58.1	22	207.3	79.6	82	263.3	101.1
43	40.1	15.4	03	96.2	36.9	63	152.2	58.4	23	208.2	79.9	83	264.2	101.4
44	41.1	15.8	04	97.1	37.3	64	153.1	58.8	24	209.1	80.3	84	265.1	101.8
45	42.0	16.1	05	98.0	37.6	65	154.0	59.1	25	210.1	80.6	85	266.1	102.1
46	42.9	16.5	06	99.0	38.0	66	155.0	59.5	26	211.0	81.0	86	267.0	102.5
47	43.9	16.8	07	99.9	38.3	67	155.9	59.8	27	211.9	81.3	87	267.9	102.9
48	44.8	17.2	08	100.8	38.7	68	156.8	60.2	28	212.9	81.7	88	268.9	103.2
49	45.7	17.6	09	101.8	39.1	69	157.8	60.6	29	213.8	82.1	89	269.8	103.6
50	46.7	17.9	10	102.7	39.4	70	158.7	60.9	30	214.7	82.4	90	270.7	103.9
51	47.6	18.3	111	103.6	39.8	171	159.6	61.3	231	215.7	82.8	291	271.7	104.3
52	48.5	18.6	12	104.6	40.1	72	160.6	61.6	32	216.6	83.1	92	272.6	104.6
53	49.5	19.0	13	105.5	40.5	73	161.5	62.0	33	217.5	83.5	93	273.5	105.0
54	50.4	19.4	14	106.4	40.9	74	162.4	62.4	34	218.5	83.9	94	274.5	105.4
55	51.3	19.7	15	107.4	41.2	75	163.4	62.7	35	219.4	84.2	95	275.4	105.7
56	52.3	20.1	16	108.3	41.6	76	164.3	63.1	36	220.3	84.6	96	276.3	106.1
57	53.2	20.4	17	109.2	41.9	77	165.2	63.4	37	221.3	84.9	97	277.3	106.4
58	54.1	20.8	18	110.2	42.3	78	166.2	63.8	38	222.2	85.3	98	278.2	106.8
59	55.1	21.1	19	111.1	42.6	79	167.1	64.1	39	223.1	85.6	99	279.1	107.2
60	56.0	21.5	20	112.0	43.0	80	168.0	64.5	40	224.1	86.0	300	280.1	107.5
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

291° | 069°
249° | 111°

69°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

339° | 021°
201° | 159°

Traverse **21°** Table

339° | 021°
201° | 159°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	281.0	107.9	361	337.0	129.4	421	393.0	150.9	481	449.1	172.4	541	505.1	193.9
02	281.9	108.2	62	338.0	129.7	22	394.0	151.2	82	450.0	172.7	42	506.0	194.2
03	282.9	108.6	63	338.9	130.1	23	394.9	151.6	83	450.9	173.1	43	506.9	194.6
04	283.8	108.9	64	339.8	130.4	24	395.8	151.9	84	451.9	173.5	44	507.9	195.0
05	284.7	109.3	65	340.8	130.8	25	396.8	152.3	85	452.8	173.8	45	508.8	195.3
06	285.7	109.7	66	341.7	131.2	26	397.7	152.7	86	453.7	174.2	46	509.7	195.7
07	286.6	110.0	67	342.6	131.5	27	398.6	153.0	87	454.7	174.5	47	510.7	196.0
08	287.5	110.4	68	343.6	131.9	28	399.6	153.4	88	455.6	174.9	48	511.6	196.4
09	288.5	110.7	69	344.5	132.2	29	400.5	153.7	89	456.5	175.2	49	512.5	196.7
10	289.4	111.1	70	345.4	132.6	30	401.4	154.1	90	457.5	175.6	50	513.5	197.1
311	290.3	111.5	371	346.4	133.0	431	402.4	154.5	491	458.4	176.0	551	514.4	197.5
12	291.3	111.8	72	347.3	133.3	32	403.3	154.8	92	459.3	176.3	52	515.3	197.8
13	292.2	112.2	73	348.2	133.7	33	404.2	155.2	93	460.3	176.7	53	516.3	198.2
14	293.1	112.5	74	349.2	134.0	34	405.2	155.5	94	461.2	177.0	54	517.2	198.5
15	294.1	112.9	75	350.1	134.4	35	406.1	155.9	95	462.1	177.4	55	518.1	198.9
16	295.0	113.2	76	351.0	134.7	36	407.0	156.2	96	463.1	177.8	56	519.1	199.3
17	295.9	113.6	77	352.0	135.1	37	408.0	156.6	97	464.0	178.1	57	520.0	199.6
18	296.9	114.0	78	352.9	135.5	38	408.9	157.0	98	464.9	178.5	58	520.9	200.0
19	297.8	114.3	79	353.8	135.8	39	409.8	157.3	99	465.9	178.8	59	521.9	200.3
20	298.7	114.7	80	354.8	136.2	40	410.8	157.7	500	466.8	179.2	60	522.8	200.7
321	299.7	115.0	381	355.7	136.5	441	411.7	158.0	501	467.7	179.5	561	523.7	201.0
22	300.6	115.4	82	356.6	136.9	42	412.6	158.4	02	468.7	179.9	62	524.7	201.4
23	301.5	115.8	83	357.6	137.3	43	413.6	158.8	03	469.6	180.3	63	525.6	201.8
24	302.5	116.1	84	358.5	137.6	44	414.5	159.1	04	470.5	180.6	64	526.5	202.1
25	303.4	116.5	85	359.4	138.0	45	415.4	159.5	05	471.5	181.0	65	527.5	202.5
26	304.3	116.8	86	360.4	138.3	46	416.4	159.8	06	472.4	181.3	66	528.4	202.8
27	305.3	117.2	87	361.3	138.7	47	417.3	160.2	07	473.3	181.7	67	529.3	203.2
28	306.2	117.5	88	362.2	139.0	48	418.2	160.5	08	474.3	182.1	68	530.3	203.6
29	307.1	117.9	89	363.2	139.4	49	419.2	160.9	09	475.2	182.4	69	531.2	203.9
30	308.1	118.3	90	364.1	139.8	50	420.1	161.3	10	476.1	182.8	70	532.1	204.3
331	309.0	118.6	391	365.0	140.1	451	421.0	161.6	511	477.1	183.1	571	533.1	204.6
32	309.9	119.0	92	366.0	140.5	52	422.0	162.0	12	478.0	183.5	72	534.0	205.0
33	310.9	119.3	93	366.9	140.8	53	422.9	162.3	13	478.9	183.8	73	534.9	205.3
34	311.8	119.7	94	367.8	141.2	54	423.8	162.7	14	479.9	184.2	74	535.9	205.7
35	312.7	120.1	95	368.8	141.6	55	424.8	163.1	15	480.8	184.6	75	536.8	206.1
36	313.7	120.4	96	369.7	141.9	56	425.7	163.4	16	481.7	184.9	76	537.7	206.4
37	314.6	120.8	97	370.6	142.3	57	426.6	163.8	17	482.7	185.3	77	538.7	206.8
38	315.6	121.1	98	371.6	142.6	58	427.6	164.1	18	483.6	185.6	78	539.6	207.1
39	316.5	121.5	99	372.5	143.0	59	428.5	164.5	19	484.5	186.0	79	540.5	207.5
40	317.4	121.8	400	373.4	143.3	60	429.4	164.8	20	485.5	186.4	80	541.5	207.9
341	318.4	122.2	401	374.4	143.7	461	430.4	165.2	521	486.4	186.7	581	542.4	208.2
42	319.3	122.6	02	375.3	144.1	62	431.3	165.6	22	487.3	187.1	82	543.3	208.6
43	320.2	122.9	03	376.2	144.4	63	432.2	165.9	23	488.3	187.4	83	544.3	208.9
44	321.2	123.3	04	377.2	144.8	64	433.2	166.3	24	489.2	187.8	84	545.2	209.3
45	322.1	123.6	05	378.1	145.1	65	434.1	166.6	25	490.1	188.1	85	546.1	209.6
46	323.0	124.0	06	379.0	145.5	66	435.0	167.0	26	491.1	188.5	86	547.1	210.0
47	324.0	124.4	07	380.0	145.9	67	436.0	167.4	27	492.0	188.9	87	548.0	210.4
48	324.9	124.7	08	380.9	146.2	68	436.9	167.7	28	492.9	189.2	88	548.9	210.7
49	325.8	125.1	09	381.8	146.6	69	437.8	168.1	29	493.9	189.6	89	549.9	211.1
50	326.8	125.4	10	382.8	146.9	70	438.8	168.4	30	494.8	189.9	90	550.8	211.4
351	327.7	125.8	411	383.7	147.3	471	439.7	168.8	531	495.7	190.3	591	551.7	211.8
52	328.6	126.1	12	384.6	147.6	72	440.6	169.1	32	496.7	190.7	92	552.7	212.2
53	329.6	126.5	13	385.6	148.0	73	441.6	169.5	33	497.6	191.0	93	553.6	212.5
54	330.5	126.9	14	386.5	148.4	74	442.5	169.9	34	498.5	191.4	94	554.5	212.9
55	331.4	127.2	15	387.4	148.7	75	443.5	170.2	35	499.5	191.7	95	555.5	213.2
56	332.4	127.6	16	388.4	149.1	76	444.4	170.6	36	500.4	192.1	96	556.4	213.6
57	333.3	127.9	17	389.3	149.4	77	445.3	170.9	37	501.3	192.4	97	557.3	213.9
58	334.2	128.3	18	390.2	149.8	78	446.3	171.3	38	502.3	192.8	98	558.3	214.3
59	335.2	128.7	19	391.2	150.2	79	447.2	171.7	39	503.2	193.2	99	559.2	214.7
60	336.1	129.0	20	392.1	150.5	80	448.1	172.0	40	504.1	193.5	600	560.1	215.0
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

291° | 069°
249° | 111°

69°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

22° Traverse Table

338° | 022°
202° | 158°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.9	0.4	61	56.6	22.9	121	112.2	45.3	181	167.8	67.8	241	223.5	90.3
2	1.9	0.7	62	57.5	23.2	22	113.1	45.7	82	168.7	68.2	42	224.4	90.7
3	2.8	1.1	63	58.4	23.6	23	114.0	46.1	83	169.7	68.6	43	225.3	91.0
4	3.7	1.5	64	59.3	24.0	24	115.0	46.5	84	170.6	68.9	44	226.2	91.4
5	4.6	1.9	65	60.3	24.3	25	115.9	46.8	85	171.5	69.3	45	227.2	91.8
6	5.6	2.2	66	61.2	24.7	26	116.8	47.2	86	172.5	69.7	46	228.1	92.2
7	6.5	2.6	67	62.1	25.1	27	117.8	47.6	87	173.4	70.1	47	229.0	92.5
8	7.4	3.0	68	63.0	25.5	28	118.7	47.9	88	174.3	70.4	48	229.9	92.9
9	8.3	3.4	69	64.0	25.8	29	119.6	48.3	89	175.2	70.8	49	230.9	93.3
10	9.3	3.7	70	64.9	26.2	30	120.5	48.7	90	176.2	71.2	50	231.8	93.7
11	10.2	4.1	71	65.8	26.6	131	121.5	49.1	191	177.1	71.5	251	232.7	94.0
12	11.1	4.5	72	66.8	27.0	32	122.4	49.4	92	178.0	71.9	52	233.7	94.4
13	12.1	4.9	73	67.7	27.3	33	123.3	49.8	93	178.9	72.3	53	234.6	94.8
14	13.0	5.2	74	68.6	27.7	34	124.2	50.2	94	179.9	72.7	54	235.5	95.2
15	13.9	5.6	75	69.5	28.1	35	125.2	50.6	95	180.8	73.0	55	236.4	95.5
16	14.8	6.0	76	70.5	28.5	36	126.1	50.9	96	181.7	73.4	56	237.4	95.9
17	15.8	6.4	77	71.4	28.8	37	127.0	51.3	97	182.7	73.8	57	238.3	96.3
18	16.7	6.7	78	72.3	29.2	38	128.0	51.7	98	183.6	74.2	58	239.2	96.6
19	17.6	7.1	79	73.2	29.6	39	128.9	52.1	99	184.5	74.5	59	240.1	97.0
20	18.5	7.5	80	74.2	30.0	40	129.8	52.4	200	185.4	74.9	60	241.1	97.4
21	19.5	7.9	81	75.1	30.3	141	130.7	52.8	201	186.4	75.3	261	242.0	97.8
22	20.4	8.2	82	76.0	30.7	42	131.7	53.2	02	187.3	75.7	62	242.9	98.1
23	21.3	8.6	83	77.0	31.1	43	132.6	53.6	03	188.2	76.0	63	243.8	98.5
24	22.3	9.0	84	77.9	31.5	44	133.5	53.9	04	189.1	76.4	64	244.8	98.9
25	23.2	9.4	85	78.8	31.8	45	134.4	54.3	05	190.1	76.8	65	245.7	99.3
26	24.1	9.7	86	79.7	32.2	46	135.4	54.7	06	191.0	77.2	66	246.6	99.6
27	25.0	10.1	87	80.7	32.6	47	136.3	55.1	07	191.9	77.5	67	247.6	100.0
28	26.0	10.5	88	81.6	33.0	48	137.2	55.4	08	192.9	77.9	68	248.5	100.4
29	26.9	10.9	89	82.5	33.3	49	138.2	55.8	09	193.8	78.3	69	249.4	100.8
30	27.8	11.2	90	83.4	33.7	50	139.1	56.2	10	194.7	78.7	70	250.3	101.1
31	28.7	11.6	91	84.4	34.1	151	140.0	56.6	211	195.6	79.0	271	251.3	101.5
32	29.7	12.0	92	85.3	34.5	52	140.9	56.9	12	196.6	79.4	72	252.2	101.9
33	30.6	12.4	93	86.2	34.8	53	141.9	57.3	13	197.5	79.8	73	253.1	102.3
34	31.5	12.7	94	87.2	35.2	54	142.8	57.7	14	198.4	80.2	74	254.0	102.6
35	32.5	13.1	95	88.1	35.6	55	143.7	58.1	15	199.3	80.5	75	255.0	103.0
36	33.4	13.5	96	89.0	36.0	56	144.6	58.4	16	200.3	80.9	76	255.9	103.4
37	34.3	13.9	97	89.9	36.3	57	145.6	58.8	17	201.2	81.3	77	256.8	103.8
38	35.2	14.2	98	90.9	36.7	58	146.5	59.2	18	202.1	81.7	78	257.8	104.1
39	36.2	14.6	99	91.8	37.1	59	147.4	59.6	19	203.1	82.0	79	258.7	104.5
40	37.1	15.0	100	92.7	37.5	60	148.3	59.9	20	204.0	82.4	80	259.6	104.9
41	38.0	15.4	101	93.6	37.8	161	149.3	60.3	221	204.9	82.8	281	260.5	105.3
42	38.9	15.7	02	94.6	38.2	62	150.2	60.7	22	205.8	83.2	82	261.5	105.6
43	39.9	16.1	03	95.5	38.6	63	151.1	61.1	23	206.8	83.5	83	262.4	106.0
44	40.8	16.5	04	96.4	39.0	64	152.1	61.4	24	207.7	83.9	84	263.3	106.4
45	41.7	16.9	05	97.4	39.3	65	153.0	61.8	25	208.6	84.3	85	264.2	106.8
46	42.7	17.2	06	98.3	39.7	66	153.9	62.2	26	209.5	84.7	86	265.2	107.1
47	43.6	17.6	07	99.2	40.1	67	154.8	62.6	27	210.5	85.0	87	266.1	107.5
48	44.5	18.0	08	100.1	40.5	68	155.8	62.9	28	211.4	85.4	88	267.0	107.9
49	45.4	18.4	09	101.1	40.8	69	156.7	63.3	29	212.3	85.8	89	268.0	108.3
50	46.4	18.7	10	102.0	41.2	70	157.6	63.7	30	213.3	86.2	90	268.9	108.6
51	47.3	19.1	111	102.9	41.6	171	158.5	64.1	231	214.2	86.5	291	269.8	109.0
52	48.2	19.5	12	103.8	42.0	72	159.5	64.4	32	215.1	86.9	92	270.7	109.4
53	49.1	19.9	13	104.8	42.3	73	160.4	64.8	33	216.0	87.3	93	271.7	109.8
54	50.1	20.2	14	105.7	42.7	74	161.3	65.2	34	217.0	87.7	94	272.6	110.1
55	51.0	20.6	15	106.6	43.1	75	162.3	65.6	35	217.9	88.0	95	273.5	110.5
56	51.9	21.0	16	107.6	43.5	76	163.2	65.9	36	218.8	88.4	96	274.4	110.9
57	52.8	21.4	17	108.5	43.8	77	164.1	66.3	37	219.7	88.8	97	275.4	111.3
58	53.8	21.7	18	109.4	44.2	78	165.0	66.7	38	220.7	89.2	98	276.3	111.6
59	54.7	22.1	19	110.3	44.6	79	166.0	67.1	39	221.6	89.5	99	277.2	112.0
60	55.6	22.5	20	111.3	45.0	80	166.9	67.4	40	222.5	89.9	300	278.2	112.4

Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

292° | 068°
248° | 112°

68°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

22° Traverse Table

338° | 022°
202° | 158°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	279.1	112.8	361	334.7	135.2	421	390.3	157.7	481	446.0	180.2	541	501.6	202.7
02	280.0	113.1	62	335.6	135.6	22	391.3	158.1	82	446.9	180.6	42	502.5	203.0
03	280.9	113.5	63	336.6	136.0	23	392.2	158.5	83	447.8	180.9	43	503.5	203.4
04	281.9	113.9	64	337.5	136.4	24	393.1	158.8	84	448.8	181.3	44	504.4	203.8
05	282.8	114.3	65	338.4	136.7	25	394.1	159.2	85	449.7	181.7	45	505.3	204.2
06	283.7	114.6	66	339.3	137.1	26	395.0	159.6	86	450.6	182.1	46	506.2	204.5
07	284.6	115.0	67	340.3	137.5	27	395.9	160.0	87	451.5	182.4	47	507.2	204.9
08	285.6	115.4	68	341.2	137.9	28	396.8	160.3	88	452.5	182.8	48	508.1	205.3
09	286.5	115.8	69	342.1	138.2	29	397.8	160.7	89	453.4	183.2	49	509.0	205.7
10	287.4	116.1	70	343.1	138.6	30	398.7	161.1	90	454.3	183.6	50	510.0	206.0
311	288.4	116.5	371	344.0	139.0	431	399.6	161.5	491	455.2	183.9	551	510.9	206.4
12	289.3	116.9	72	344.9	139.4	32	400.5	161.8	92	456.2	184.3	52	511.8	206.8
13	290.2	117.3	73	345.8	139.7	33	401.5	162.2	93	457.1	184.7	53	512.7	207.2
14	291.1	117.6	74	346.8	140.1	34	402.4	162.6	94	458.0	185.1	54	513.7	207.5
15	292.1	118.0	75	347.7	140.5	35	403.3	163.0	95	459.0	185.4	55	514.6	207.9
16	293.0	118.4	76	348.6	140.9	36	404.3	163.3	96	459.9	185.8	56	515.5	208.3
17	293.9	118.8	77	349.5	141.2	37	405.2	163.7	97	460.8	186.2	57	516.4	208.7
18	294.8	119.1	78	350.5	141.6	38	406.1	164.1	98	461.7	186.6	58	517.4	209.0
19	295.8	119.5	79	351.4	142.0	39	407.0	164.5	99	462.7	186.9	59	518.3	209.4
20	296.7	119.9	80	352.3	142.4	40	408.0	164.8	500	463.6	187.3	60	519.2	209.8
321	297.6	120.2	381	353.3	142.7	441	408.9	165.2	501	464.5	187.7	561	520.2	210.2
22	298.6	120.6	82	354.2	143.1	42	409.8	165.6	02	465.4	188.1	62	521.1	210.5
23	299.5	121.0	83	355.1	143.5	43	410.7	166.0	03	466.4	188.4	63	522.0	210.9
24	300.4	121.4	84	356.0	143.8	44	411.7	166.3	04	467.3	188.8	64	522.9	211.3
25	301.3	121.7	85	357.0	144.2	45	412.6	166.7	05	468.2	189.2	65	523.9	211.7
26	302.3	122.1	86	357.9	144.6	46	413.5	167.1	06	469.2	189.6	66	524.8	212.0
27	303.2	122.5	87	358.8	145.0	47	414.5	167.4	07	470.1	189.9	67	525.7	212.4
28	304.1	122.9	88	359.7	145.3	48	415.4	167.8	08	471.0	190.3	68	526.6	212.8
29	305.0	123.2	89	360.7	145.7	49	416.3	168.2	09	471.9	190.7	69	527.6	213.2
30	306.0	123.6	90	361.6	146.1	50	417.2	168.6	10	472.9	191.0	70	528.5	213.5
331	306.9	124.0	391	362.5	146.5	451	418.2	168.9	511	473.8	191.4	571	529.4	213.9
32	307.8	124.4	92	363.5	146.8	52	419.1	169.3	12	474.7	191.8	72	530.3	214.3
33	308.8	124.7	93	364.4	147.2	53	420.0	169.7	13	475.6	192.2	73	531.3	214.6
34	309.7	125.1	94	365.3	147.6	54	420.9	170.1	14	476.6	192.5	74	532.2	215.0
35	310.6	125.5	95	366.2	148.0	55	421.9	170.4	15	477.5	192.9	75	533.1	215.4
36	311.5	125.9	96	367.2	148.3	56	422.8	170.8	16	478.4	193.3	76	534.1	215.8
37	312.5	126.2	97	368.1	148.7	57	423.7	171.2	17	479.4	193.7	77	535.0	216.1
38	313.4	126.6	98	369.0	149.1	58	424.7	171.6	18	480.3	194.0	78	535.9	216.5
39	314.3	127.0	99	369.9	149.5	59	425.6	171.9	19	481.2	194.4	79	536.8	216.9
40	315.2	127.4	400	370.9	149.8	60	426.5	172.3	20	482.1	194.8	80	537.8	217.3
341	316.2	127.7	401	371.8	150.2	461	427.4	172.7	521	483.1	195.2	581	538.7	217.6
42	317.1	128.1	02	372.7	150.6	62	428.4	173.1	22	484.0	195.5	82	539.6	218.0
43	318.0	128.5	03	373.7	151.0	63	429.3	173.4	23	484.9	195.9	83	540.5	218.4
44	319.0	128.9	04	374.6	151.3	64	430.2	173.8	24	485.8	196.3	84	541.5	218.8
45	319.9	129.2	05	375.5	151.7	65	431.1	174.2	25	486.8	196.7	85	542.4	219.1
46	320.8	129.6	06	376.4	152.1	66	432.1	174.6	26	487.7	197.0	86	543.3	219.5
47	321.7	130.0	07	377.4	152.5	67	433.0	174.9	27	488.6	197.4	87	544.3	219.9
48	322.7	130.4	08	378.3	152.8	68	433.9	175.3	28	489.6	197.8	88	545.2	220.3
49	323.6	130.7	09	379.2	153.2	69	434.8	175.7	29	490.5	198.2	89	546.1	220.6
50	324.5	131.1	10	380.1	153.6	70	435.8	176.1	30	491.4	198.5	90	547.0	221.0
351	325.4	131.5	411	381.1	154.0	471	436.7	176.4	531	492.3	198.9	591	548.0	221.4
52	326.4	131.9	12	382.0	154.3	72	437.6	176.8	32	493.3	199.3	92	548.9	221.8
53	327.3	132.2	13	382.9	154.7	73	438.6	177.2	33	494.2	199.7	93	549.8	222.1
54	328.2	132.6	14	383.9	155.1	74	439.5	177.6	34	495.1	200.0	94	550.7	222.5
55	329.2	133.0	15	384.8	155.5	75	440.4	177.9	35	496.0	200.4	95	551.7	222.9
56	330.1	133.4	16	385.7	155.8	76	441.3	178.3	36	497.0	200.8	96	552.6	223.3
57	331.0	133.7	17	386.6	156.2	77	442.3	178.7	37	497.9	201.2	97	553.5	223.6
58	331.9	134.1	18	387.6	156.6	78	443.2	179.1	38	498.8	201.5	98	554.5	224.0
59	332.9	134.5	19	388.5	157.0	79	444.1	179.4	39	499.8	201.9	99	555.4	224.4
60	333.8	134.9	20	389.4	157.3	80	445.0	179.8	40	500.7	202.3	600	556.3	224.8

Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

292° | 068°
248° | 112°

68°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

337° | 023°
203° | 157°

Traverse **23°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.9	0.4	61	56.2	23.8	121	111.4	47.3	181	166.6	70.7	241	221.8	94.2
2	1.8	0.8	62	57.1	24.2	22	112.3	47.7	82	167.5	71.1	42	222.8	94.6
3	2.8	1.2	63	58.0	24.6	23	113.2	48.1	83	168.5	71.5	43	223.7	94.9
4	3.7	1.6	64	58.9	25.0	24	114.1	48.5	84	169.4	71.9	44	224.6	95.3
5	4.6	2.0	65	59.8	25.4	25	115.1	48.8	85	170.3	72.3	45	225.5	95.7
6	5.5	2.3	66	60.8	25.8	26	116.0	49.2	86	171.2	72.7	46	226.4	96.1
7	6.4	2.7	67	61.7	26.2	27	116.9	49.6	87	172.1	73.1	47	227.4	96.5
8	7.4	3.1	68	62.6	26.6	28	117.8	50.0	88	173.1	73.5	48	228.3	96.9
9	8.3	3.5	69	63.5	27.0	29	118.7	50.4	89	174.0	73.8	49	229.2	97.3
10	9.2	3.9	70	64.4	27.4	30	119.7	50.8	90	174.9	74.2	50	230.1	97.7
11	10.1	4.3	71	65.4	27.7	131	120.6	51.2	191	175.8	74.6	251	231.0	98.1
12	11.0	4.7	72	66.3	28.1	32	121.5	51.6	92	176.7	75.0	52	232.0	98.5
13	12.0	5.1	73	67.2	28.5	33	122.4	52.0	93	177.7	75.4	53	232.9	98.9
14	12.9	5.5	74	68.1	28.9	34	123.3	52.4	94	178.6	75.8	54	233.8	99.2
15	13.8	5.9	75	69.0	29.3	35	124.3	52.7	95	179.5	76.2	55	234.7	99.6
16	14.7	6.3	76	70.0	29.7	36	125.2	53.1	96	180.4	76.6	56	235.6	100.0
17	15.6	6.6	77	70.9	30.1	37	126.1	53.5	97	181.3	77.0	57	236.6	100.4
18	16.6	7.0	78	71.8	30.5	38	127.0	53.9	98	182.3	77.4	58	237.5	100.8
19	17.5	7.4	79	72.7	30.9	39	128.0	54.3	99	183.2	77.8	59	238.4	101.2
20	18.4	7.8	80	73.6	31.3	40	128.9	54.7	200	184.1	78.1	60	239.3	101.6
21	19.3	8.2	81	74.6	31.6	141	129.8	55.1	201	185.0	78.5	261	240.3	102.0
22	20.3	8.6	82	75.5	32.0	42	130.7	55.5	02	185.9	78.9	62	241.2	102.4
23	21.2	9.0	83	76.4	32.4	43	131.6	55.9	03	186.9	79.3	63	242.1	102.8
24	22.1	9.4	84	77.3	32.8	44	132.6	56.3	04	187.8	79.7	64	243.0	103.2
25	23.0	9.8	85	78.2	33.2	45	133.5	56.7	05	188.7	80.1	65	243.9	103.5
26	23.9	10.2	86	79.2	33.6	46	134.4	57.0	06	189.6	80.5	66	244.9	103.9
27	24.9	10.5	87	80.1	34.0	47	135.3	57.4	07	190.5	80.9	67	245.8	104.3
28	25.8	10.9	88	81.0	34.4	48	136.2	57.8	08	191.5	81.3	68	246.7	104.7
29	26.7	11.3	89	81.9	34.8	49	137.2	58.2	09	192.4	81.7	69	247.6	105.1
30	27.6	11.7	90	82.8	35.2	50	138.1	58.6	10	193.3	82.1	70	248.5	105.5
31	28.5	12.1	91	83.8	35.6	151	139.0	59.0	211	194.2	82.4	271	249.5	105.9
32	29.5	12.5	92	84.7	35.9	52	139.9	59.4	12	195.1	82.8	72	250.4	106.3
33	30.4	12.9	93	85.6	36.3	53	140.8	59.8	13	196.1	83.2	73	251.3	106.7
34	31.3	13.3	94	86.5	36.7	54	141.8	60.2	14	197.0	83.6	74	252.2	107.1
35	32.2	13.7	95	87.4	37.1	55	142.7	60.6	15	197.9	84.0	75	253.1	107.5
36	33.1	14.1	96	88.4	37.5	56	143.6	61.0	16	198.8	84.4	76	254.1	107.8
37	34.1	14.5	97	89.3	37.9	57	144.5	61.3	17	199.7	84.8	77	255.0	108.2
38	35.0	14.8	98	90.2	38.3	58	145.4	61.7	18	200.7	85.2	78	255.9	108.6
39	35.9	15.2	99	91.1	38.7	59	146.4	62.1	19	201.6	85.6	79	256.8	109.0
40	36.8	15.6	100	92.1	39.1	60	147.3	62.5	20	202.5	86.0	80	257.7	109.4
41	37.7	16.0	101	93.0	39.5	161	148.2	62.9	221	203.4	86.4	281	258.7	109.8
42	38.7	16.4	02	93.9	39.9	62	149.1	63.3	22	204.4	86.7	82	259.6	110.2
43	39.6	16.8	03	94.8	40.2	63	150.0	63.7	23	205.3	87.1	83	260.5	110.6
44	40.5	17.2	04	95.7	40.6	64	151.0	64.1	24	206.2	87.5	84	261.4	111.0
45	41.4	17.6	05	96.7	41.0	65	151.9	64.5	25	207.1	87.9	85	262.3	111.4
46	42.3	18.0	06	97.6	41.4	66	152.8	64.9	26	208.0	88.3	86	263.3	111.7
47	43.3	18.4	07	98.5	41.8	67	153.7	65.3	27	209.0	88.7	87	264.2	112.1
48	44.2	18.8	08	99.4	42.2	68	154.6	65.6	28	209.9	89.1	88	265.1	112.5
49	45.1	19.1	09	100.3	42.6	69	155.6	66.0	29	210.8	89.5	89	266.0	112.9
50	46.0	19.5	10	101.3	43.0	70	156.5	66.4	30	211.7	89.9	90	266.9	113.3
51	46.9	19.9	111	102.2	43.4	171	157.4	66.8	231	212.6	90.3	291	267.9	113.7
52	47.9	20.3	12	103.1	43.8	72	158.3	67.2	32	213.6	90.6	92	268.8	114.1
53	48.8	20.7	13	104.0	44.2	73	159.2	67.6	33	214.5	91.0	93	269.7	114.5
54	49.7	21.1	14	104.9	44.5	74	160.2	68.0	34	215.4	91.4	94	270.6	114.9
55	50.6	21.5	15	105.9	44.9	75	161.1	68.4	35	216.3	91.8	95	271.5	115.3
56	51.5	21.9	16	106.8	45.3	76	162.0	68.8	36	217.2	92.2	96	272.5	115.7
57	52.5	22.3	17	107.7	45.7	77	162.9	69.2	37	218.2	92.6	97	273.4	116.0
58	53.4	22.7	18	108.6	46.1	78	163.8	69.6	38	219.1	93.0	98	274.3	116.4
59	54.3	23.1	19	109.5	46.5	79	164.8	69.9	39	220.0	93.4	99	275.2	116.8
60	55.2	23.4	20	110.5	46.9	80	165.7	70.3	40	220.9	93.8	300	276.2	117.2
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

293° | 067°
247° | 113°

67°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

337° | 023°
203° | 157°

Traverse **23°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	277.1	117.6	361	332.3	141.1	421	387.5	164.5	481	442.8	187.9	541	498.0	211.4
02	278.0	118.0	62	333.2	141.4	22	388.5	164.9	82	443.7	188.3	42	498.9	211.8
03	278.9	118.4	63	334.1	141.8	23	389.4	165.3	83	444.6	188.7	43	499.8	212.2
04	279.8	118.8	64	335.1	142.2	24	390.3	165.7	84	445.5	189.1	44	500.8	212.6
05	280.8	119.2	65	336.0	142.6	25	391.2	166.1	85	446.4	189.5	45	501.7	212.9
06	281.7	119.6	66	336.9	143.0	26	392.1	166.5	86	447.4	189.9	46	502.6	213.3
07	282.6	120.0	67	337.8	143.4	27	393.1	166.8	87	448.3	190.3	47	503.5	213.7
08	283.5	120.3	68	338.7	143.8	28	394.0	167.2	88	449.2	190.7	48	504.4	214.1
09	284.4	120.7	69	339.7	144.2	29	394.9	167.6	89	450.1	191.1	49	505.4	214.5
10	285.4	121.1	70	340.6	144.6	30	395.8	168.0	90	451.0	191.5	50	506.3	214.9
311	286.3	121.5	371	341.5	145.0	431	396.7	168.4	491	452.0	191.8	551	507.2	215.3
12	287.2	121.9	72	342.4	145.4	32	397.7	168.8	92	452.9	192.2	52	508.1	215.7
13	288.1	122.3	73	343.3	145.7	33	398.6	169.2	93	453.8	192.6	53	509.0	216.1
14	289.0	122.7	74	344.3	146.1	34	399.5	169.6	94	454.7	193.0	54	510.0	216.5
15	290.0	123.1	75	345.2	146.5	35	400.4	170.0	95	455.6	193.4	55	510.9	216.9
16	290.9	123.5	76	346.1	146.9	36	401.3	170.4	96	456.6	193.8	56	511.8	217.2
17	291.8	123.9	77	347.0	147.3	37	402.3	170.7	97	457.5	194.2	57	512.7	217.6
18	292.7	124.3	78	348.0	147.7	38	403.2	171.1	98	458.4	194.6	58	513.6	218.0
19	293.6	124.6	79	348.9	148.1	39	404.1	171.5	99	459.3	195.0	59	514.6	218.4
20	294.6	125.0	80	349.8	148.5	40	405.0	171.9	500	460.3	195.4	60	515.5	218.8
321	295.5	125.4	381	350.7	148.9	441	405.9	172.3	501	461.2	195.8	561	516.4	219.2
22	296.4	125.8	82	351.6	149.3	42	406.9	172.7	02	462.1	196.1	62	517.3	219.6
23	297.3	126.2	83	352.6	149.7	43	407.8	173.1	03	463.0	196.5	63	518.2	220.0
24	298.2	126.6	84	353.5	150.0	44	408.7	173.5	04	463.9	196.9	64	519.2	220.4
25	299.2	127.0	85	354.4	150.4	45	409.6	173.9	05	464.9	197.3	65	520.1	220.8
26	300.1	127.4	86	355.3	150.8	46	410.5	174.3	06	465.8	197.7	66	521.0	221.2
27	301.0	127.8	87	356.2	151.2	47	411.5	174.7	07	466.7	198.1	67	521.9	221.5
28	301.9	128.2	88	357.2	151.6	48	412.4	175.0	08	467.6	198.5	68	522.8	221.9
29	302.8	128.6	89	358.1	152.0	49	413.3	175.4	09	468.5	198.9	69	523.8	222.3
30	303.8	128.9	90	359.0	152.4	50	414.2	175.8	10	469.5	199.3	70	524.7	222.7
331	304.7	129.3	391	359.9	152.8	451	415.1	176.2	511	470.4	199.7	571	525.6	223.1
32	305.6	129.7	92	360.8	153.2	52	416.1	176.6	12	471.3	200.1	72	526.5	223.5
33	306.5	130.1	93	361.8	153.6	53	417.0	177.0	13	472.2	200.4	73	527.4	223.9
34	307.4	130.5	94	362.7	153.9	54	417.9	177.4	14	473.1	200.8	74	528.4	224.3
35	308.4	130.9	95	363.6	154.3	55	418.8	177.8	15	474.1	201.2	75	529.3	224.7
36	309.3	131.3	96	364.5	154.7	56	419.8	178.2	16	475.0	201.6	76	530.2	225.1
37	310.2	131.7	97	365.4	155.1	57	420.7	178.6	17	475.9	202.0	77	531.1	225.5
38	311.1	132.1	98	366.4	155.5	58	421.6	179.0	18	476.8	202.4	78	532.1	225.8
39	312.1	132.5	99	367.3	155.9	59	422.5	179.3	19	477.7	202.8	79	533.0	226.2
40	313.0	132.8	400	368.2	156.3	60	423.4	179.7	20	478.7	203.2	80	533.9	226.6
341	313.9	133.2	401	369.1	156.7	461	424.4	180.1	521	479.6	203.6	581	534.8	227.0
42	314.8	133.6	02	370.0	157.1	62	425.3	180.5	22	480.5	204.0	82	535.7	227.4
43	315.7	134.0	03	371.0	157.5	63	426.2	180.9	23	481.4	204.4	83	536.7	227.8
44	316.7	134.4	04	371.9	157.9	64	427.1	181.3	24	482.3	204.7	84	537.6	228.2
45	317.6	134.8	05	372.8	158.2	65	428.0	181.7	25	483.3	205.1	85	538.5	228.6
46	318.5	135.2	06	373.7	158.6	66	429.0	182.1	26	484.2	205.5	86	539.4	229.0
47	319.4	135.6	07	374.6	159.0	67	429.9	182.5	27	485.1	205.9	87	540.3	229.4
48	320.3	136.0	08	375.6	159.4	68	430.8	182.9	28	486.0	206.3	88	541.3	229.7
49	321.3	136.4	09	376.5	159.8	69	431.7	183.3	29	486.9	206.7	89	542.2	230.1
50	322.2	136.8	10	377.4	160.2	70	432.6	183.6	30	487.9	207.1	90	543.1	230.5
351	323.1	137.1	411	378.3	160.6	471	433.6	184.0	531	488.8	207.5	591	544.0	230.9
52	324.0	137.5	12	379.2	161.0	72	434.5	184.4	32	489.7	207.9	92	544.9	231.3
53	324.9	137.9	13	380.2	161.4	73	435.4	184.8	33	490.6	208.3	93	545.9	231.7
54	325.9	138.3	14	381.1	161.8	74	436.3	185.2	34	491.5	208.7	94	546.8	232.1
55	326.8	138.7	15	382.0	162.2	75	437.2	185.6	35	492.5	209.0	95	547.7	232.5
56	327.7	139.1	16	382.9	162.5	76	438.2	186.0	36	493.4	209.4	96	548.6	232.9
57	328.6	139.5	17	383.9	162.9	77	439.1	186.4	37	494.3	209.8	97	549.5	233.3
58	329.5	139.9	18	384.8	163.3	78	440.0	186.8	38	495.2	210.2	98	550.5	233.7
59	330.5	140.3	19	385.7	163.7	79	440.9	187.2	39	496.2	210.6	99	551.4	234.0
60	331.4	140.7	20	386.6	164.1	80	441.8	187.6	40	497.1	211.0	600	552.3	234.4
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

293° | 067°
247° | 113°

67°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

24° Traverse Table

336° / 204° | 024° / 156°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.9	0.4	61	55.7	24.8	121	110.5	49.2	181	165.4	73.6	241	220.2	98.0
2	1.8	0.8	62	56.6	25.2	22	111.5	49.6	82	166.3	74.0	42	221.1	98.4
3	2.7	1.2	63	57.6	25.6	23	112.4	50.0	83	167.2	74.4	43	222.0	98.8
4	3.7	1.6	64	58.5	26.0	24	113.3	50.4	84	168.1	74.8	44	222.9	99.2
5	4.6	2.0	65	59.4	26.4	25	114.2	50.8	85	169.0	75.2	45	223.8	99.7
6	5.5	2.4	66	60.3	26.8	26	115.1	51.2	86	169.9	75.7	46	224.7	100.1
7	6.4	2.8	67	61.2	27.3	27	116.0	51.7	87	170.8	76.1	47	225.6	100.5
8	7.3	3.3	68	62.1	27.7	28	116.9	52.1	88	171.7	76.5	48	226.6	100.9
9	8.2	3.7	69	63.0	28.1	29	117.8	52.5	89	172.7	76.9	49	227.5	101.3
10	9.1	4.1	70	63.9	28.5	30	118.8	52.9	90	173.6	77.3	50	228.4	101.7
11	10.0	4.5	71	64.9	28.9	131	119.7	53.3	191	174.5	77.7	251	229.3	102.1
12	11.0	4.9	72	65.8	29.3	32	120.6	53.7	92	175.4	78.1	52	230.2	102.5
13	11.9	5.3	73	66.7	29.7	33	121.5	54.1	93	176.3	78.5	53	231.1	102.9
14	12.8	5.7	74	67.6	30.1	34	122.4	54.5	94	177.2	78.9	54	232.0	103.3
15	13.7	6.1	75	68.5	30.5	35	123.3	54.9	95	178.1	79.3	55	233.0	103.7
16	14.6	6.5	76	69.4	30.9	36	124.2	55.3	96	179.1	79.7	56	233.9	104.1
17	15.5	6.9	77	70.3	31.3	37	125.2	55.7	97	180.0	80.1	57	234.8	104.5
18	16.4	7.3	78	71.3	31.7	38	126.1	56.1	98	180.9	80.5	58	235.7	104.9
19	17.4	7.7	79	72.2	32.1	39	127.0	56.5	99	181.8	80.9	59	236.6	105.3
20	18.3	8.1	80	73.1	32.5	40	127.9	56.9	200	182.7	81.3	60	237.5	105.8
21	19.2	8.5	81	74.0	32.9	141	128.8	57.3	201	183.6	81.8	261	238.4	106.2
22	20.1	8.9	82	74.9	33.4	42	129.7	57.8	02	184.5	82.2	62	239.3	106.6
23	21.0	9.4	83	75.8	33.8	43	130.6	58.2	03	185.4	82.6	63	240.3	107.0
24	21.9	9.8	84	76.7	34.2	44	131.6	58.6	04	186.4	83.0	64	241.2	107.4
25	22.8	10.2	85	77.7	34.6	45	132.5	59.0	05	187.3	83.4	65	242.1	107.8
26	23.8	10.6	86	78.6	35.0	46	133.4	59.4	06	188.2	83.8	66	243.0	108.2
27	24.7	11.0	87	79.5	35.4	47	134.3	59.8	07	189.1	84.2	67	243.9	108.6
28	25.6	11.4	88	80.4	35.8	48	135.2	60.2	08	190.0	84.6	68	244.8	109.0
29	26.5	11.8	89	81.3	36.2	49	136.1	60.6	09	190.9	85.0	69	245.7	109.4
30	27.4	12.2	90	82.2	36.6	50	137.0	61.0	10	191.8	85.4	70	246.7	109.8
31	28.3	12.6	91	83.1	37.0	151	137.9	61.4	211	192.8	85.8	271	247.6	110.2
32	29.2	13.0	92	84.0	37.4	52	138.9	61.8	12	193.7	86.2	72	248.5	110.6
33	30.1	13.4	93	85.0	37.8	53	139.8	62.2	13	194.6	86.6	73	249.4	111.0
34	31.1	13.8	94	85.9	38.2	54	140.7	62.6	14	195.5	87.0	74	250.3	111.4
35	32.0	14.2	95	86.8	38.6	55	141.6	63.0	15	196.4	87.4	75	251.2	111.9
36	32.9	14.6	96	87.7	39.0	56	142.5	63.5	16	197.3	87.9	76	252.1	112.3
37	33.8	15.0	97	88.6	39.5	57	143.4	63.9	17	198.2	88.3	77	253.1	112.7
38	34.7	15.5	98	89.5	39.9	58	144.3	64.3	18	199.2	88.7	78	254.0	113.1
39	35.6	15.9	99	90.4	40.3	59	145.3	64.7	19	200.1	89.1	79	254.9	113.5
40	36.5	16.3	100	91.4	40.7	60	146.2	65.1	20	201.0	89.5	80	255.8	113.9
41	37.5	16.7	101	92.3	41.1	161	147.1	65.5	221	201.9	89.9	281	256.7	114.3
42	38.4	17.1	02	93.2	41.5	62	148.0	65.9	22	202.8	90.3	82	257.6	114.7
43	39.3	17.5	03	94.1	41.9	63	148.9	66.3	23	203.7	90.7	83	258.5	115.1
44	40.2	17.9	04	95.0	42.3	64	149.8	66.7	24	204.6	91.1	84	259.4	115.5
45	41.1	18.3	05	95.9	42.7	65	150.7	67.1	25	205.5	91.5	85	260.4	115.9
46	42.0	18.7	06	96.8	43.1	66	151.6	67.5	26	206.5	91.9	86	261.3	116.3
47	42.9	19.1	07	97.7	43.5	67	152.6	67.9	27	207.4	92.3	87	262.2	116.7
48	43.9	19.5	08	98.7	43.9	68	153.5	68.3	28	208.3	92.7	88	263.1	117.1
49	44.8	19.9	09	99.6	44.3	69	154.4	68.7	29	209.2	93.1	89	264.0	117.5
50	45.7	20.3	10	100.5	44.7	70	155.3	69.1	30	210.1	93.5	90	264.9	118.0
51	46.6	20.7	111	101.4	45.1	171	156.2	69.6	231	211.0	94.0	291	265.8	118.4
52	47.5	21.2	12	102.3	45.6	72	157.1	70.0	32	211.9	94.4	92	266.8	118.8
53	48.4	21.6	13	103.2	46.0	73	158.0	70.4	33	212.9	94.8	93	267.7	119.2
54	49.3	22.0	14	104.1	46.4	74	159.0	70.8	34	213.8	95.2	94	268.6	119.6
55	50.2	22.4	15	105.1	46.8	75	159.9	71.2	35	214.7	95.6	95	269.5	120.0
56	51.2	22.8	16	106.0	47.2	76	160.8	71.6	36	215.6	96.0	96	270.4	120.4
57	52.1	23.2	17	106.9	47.6	77	161.7	72.0	37	216.5	96.4	97	271.3	120.8
58	53.0	23.6	18	107.8	48.0	78	162.6	72.4	38	217.4	96.8	98	272.2	121.2
59	53.9	24.0	19	108.7	48.4	79	163.5	72.8	39	218.3	97.2	99	273.2	121.6
60	54.8	24.4	20	109.6	48.8	80	164.4	73.2	40	219.3	97.6	300	274.1	122.0
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

294° / 246° | 066° / 114°

66°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

24° Traverse Table

336° / 204° | 024° / 156°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	275.0	122.4	361	329.8	146.8	421	384.6	171.2	481	439.4	195.6	541	494.2	220.0
02	275.9	122.8	62	330.7	147.2	22	385.5	171.6	82	440.3	196.0	42	495.1	220.5
03	276.8	123.2	63	331.6	147.6	23	386.4	172.0	83	441.2	196.5	43	496.1	220.9
04	277.7	123.6	64	332.5	148.1	24	387.3	172.5	84	442.2	196.9	44	497.0	221.3
05	278.6	124.1	65	333.4	148.5	25	388.3	172.9	85	443.1	197.3	45	497.9	221.7
06	279.5	124.5	66	334.4	148.9	26	389.2	173.3	86	444.0	197.7	46	498.8	222.1
07	280.5	124.9	67	335.3	149.3	27	390.1	173.7	87	444.9	198.1	47	499.7	222.5
08	281.4	125.3	68	336.2	149.7	28	391.0	174.1	88	445.8	198.5	48	500.6	222.9
09	282.3	125.7	69	337.1	150.1	29	391.9	174.5	89	446.7	198.9	49	501.5	223.3
10	283.2	126.1	70	338.0	150.5	30	392.8	174.9	90	447.6	199.3	50	502.5	223.7
311	284.1	126.5	371	338.9	150.9	431	393.7	175.3	491	448.6	199.7	551	503.4	224.1
12	285.0	126.9	72	339.8	151.3	32	394.7	175.7	92	449.5	200.1	52	504.3	224.5
13	285.9	127.3	73	340.8	151.7	33	395.6	176.1	93	450.4	200.5	53	505.2	224.9
14	286.9	127.7	74	341.7	152.1	34	396.5	176.5	94	451.3	200.9	54	506.1	225.3
15	287.8	128.1	75	342.6	152.5	35	397.4	176.9	95	452.2	201.3	55	507.0	225.7
16	288.7	128.5	76	343.5	152.9	36	398.3	177.3	96	453.1	201.7	56	507.9	226.1
17	289.6	128.9	77	344.4	153.3	37	399.2	177.7	97	454.0	202.1	57	508.8	226.6
18	290.5	129.3	78	345.3	153.7	38	400.1	178.2	98	454.9	202.6	58	509.8	227.0
19	291.4	129.7	79	346.2	154.2	39	401.0	178.6	99	455.9	203.0	59	510.7	227.4
20	292.3	130.2	80	347.1	154.6	40	402.0	179.0	500	456.8	203.4	60	511.6	227.8
321	293.2	130.6	381	348.1	155.0	441	402.9	179.4	501	457.7	203.8	561	512.5	228.2
22	294.2	131.0	82	349.0	155.4	42	403.8	179.8	02	458.6	204.2	62	513.4	228.6
23	295.1	131.4	83	349.9	155.8	43	404.7	180.2	03	459.5	204.6	63	514.3	229.0
24	296.0	131.8	84	350.8	156.2	44	405.6	180.6	04	460.4	205.0	64	515.2	229.4
25	296.9	132.2	85	351.7	156.6	45	406.5	181.0	05	461.3	205.4	65	516.2	229.8
26	297.8	132.6	86	352.6	157.0	46	407.4	181.4	06	462.3	205.8	66	517.1	230.2
27	298.7	133.0	87	353.5	157.4	47	408.4	181.8	07	463.2	206.2	67	518.0	230.6
28	299.6	133.4	88	354.5	157.8	48	409.3	182.2	08	464.1	206.6	68	518.9	231.0
29	300.6	133.8	89	355.4	158.2	49	410.2	182.6	09	465.0	207.0	69	519.8	231.4
30	301.5	134.2	90	356.3	158.6	50	411.1	183.0	10	465.9	207.4	70	520.7	231.8
331	302.4	134.6	391	357.2	159.0	451	412.0	183.4	511	466.8	207.8	571	521.6	232.2
32	303.3	135.0	92	358.1	159.4	52	412.9	183.8	12	467.7	208.2	72	522.5	232.7
33	304.2	135.4	93	359.0	159.8	53	413.8	184.3	13	468.6	208.7	73	523.5	233.1
34	305.1	135.9	94	359.9	160.3	54	414.7	184.7	14	469.6	209.1	74	524.4	233.5
35	306.0	136.3	95	360.9	160.7	55	415.7	185.1	15	470.5	209.5	75	525.3	233.9
36	307.0	136.7	96	361.8	161.1	56	416.6	185.5	16	471.4	209.9	76	526.2	234.3
37	307.9	137.1	97	362.7	161.5	57	417.5	185.9	17	472.3	210.3	77	527.1	234.7
38	308.8	137.5	98	363.6	161.9	58	418.4	186.3	18	473.2	210.7	78	528.0	235.1
39	309.7	137.9	99	364.5	162.3	59	419.3	186.7	19	474.1	211.1	79	528.9	235.5
40	310.6	138.3	400	365.4	162.7	60	420.2	187.1	20	475.0	211.5	80	529.9	235.9
341	311.5	138.7	401	366.3	163.1	461	421.1	187.5	521	476.0	211.9	581	530.8	236.3
42	312.4	139.1	02	367.2	163.5	62	422.1	187.9	22	476.9	212.3	82	531.7	236.7
43	313.3	139.5	03	368.2	163.9	63	423.0	188.3	23	477.8	212.7	83	532.6	237.1
44	314.3	139.9	04	369.1	164.3	64	423.9	188.7	24	478.7	213.1	84	533.5	237.5
45	315.2	140.3	05	370.0	164.7	65	424.8	189.1	25	479.6	213.5	85	534.4	237.9
46	316.1	140.7	06	370.9	165.1	66	425.7	189.5	26	480.5	213.9	86	535.3	238.3
47	317.0	141.1	07	371.8	165.5	67	426.6	189.9	27	481.4	214.4	87	536.3	238.8
48	317.9	141.5	08	372.7	165.9	68	427.5	190.4	28	482.4	214.8	88	537.2	239.2
49	318.8	142.0	09	373.6	166.4	69	428.5	190.8	29	483.3	215.2	89	538.1	239.6
50	319.7	142.4	10	374.6	166.8	70	429.4	191.2	30	484.2	215.6	90	539.0	240.0
351	320.7	142.8	411	375.5	167.2	471	430.3	191.6	531	485.1	216.0	591	539.9	240.4
52	321.6	143.2	12	376.4	167.6	72	431.2	192.0	32	486.0	216.4	92	540.8	240.8
53	322.5	143.6	13	377.3	168.0	73	432.1	192.4	33	486.9	216.8	93	541.7	241.2
54	323.4	144.0	14	378.2	168.4	74	433.0	192.8	34	487.8	217.2	94	542.6	241.6
55	324.3	144.4	15	379.1	168.8	75	433.9	193.2	35	488.7	217.6	95	543.6	242.0
56	325.2	144.8	16	380.0	169.2	76	434.8	193.6	36	489.7	218.0	96	544.5	242.4
57	326.1	145.2	17	380.9	169.6	77	435.8	194.0	37	490.6	218.4	97	545.4	242.8
58	327.0	145.6	18	381.9	170.0	78	436.7	194.4	38	491.5	218.8	98	546.3	243.2
59	328.0	146.0	19	382.8	170.4	79	437.6	194.8	39	492.4	219.2	99	547.2	243.6
60	328.9	146.4	20	383.7	170.8	80	438.5	195.2	40	493.3	219.6	600	548.1	244.0
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

294° / 246° | 066° / 114°

66°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

335° | 025°
205° | 155°

Traverse **25°** Table

335° | 025°
205° | 155°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.9	0.4	61	55.3	25.8	121	109.7	51.1	181	164.0	76.5	241	218.4	101.9
2	1.8	0.8	62	56.2	26.2	22	110.6	51.6	82	164.9	76.9	42	219.3	102.3
3	2.7	1.3	63	57.1	26.6	23	111.5	52.0	83	165.9	77.3	43	220.2	102.7
4	3.6	1.7	64	58.0	27.0	24	112.4	52.4	84	166.8	77.8	44	221.1	103.1
5	4.5	2.1	65	58.9	27.5	25	113.3	52.8	85	167.7	78.2	45	222.0	103.5
6	5.4	2.5	66	59.8	27.9	26	114.2	53.2	86	168.6	78.6	46	223.0	104.0
7	6.3	3.0	67	60.7	28.3	27	115.1	53.7	87	169.5	79.0	47	223.9	104.4
8	7.3	3.4	68	61.6	28.7	28	116.0	54.1	88	170.4	79.5	48	224.8	104.8
9	8.2	3.8	69	62.5	29.2	29	116.9	54.5	89	171.3	79.9	49	225.7	105.2
10	9.1	4.2	70	63.4	29.6	30	117.8	54.9	90	172.2	80.3	50	226.6	105.7
11	10.0	4.6	71	64.3	30.0	131	118.7	55.4	191	173.1	80.7	251	227.5	106.1
12	10.9	5.1	72	65.3	30.4	32	119.6	55.8	92	174.0	81.1	52	228.4	106.5
13	11.8	5.5	73	66.2	30.9	33	120.5	56.2	93	174.9	81.6	53	229.3	106.9
14	12.7	5.9	74	67.1	31.3	34	121.4	56.6	94	175.8	82.0	54	230.2	107.3
15	13.6	6.3	75	68.0	31.7	35	122.4	57.1	95	176.7	82.4	55	231.1	107.8
16	14.5	6.8	76	68.9	32.1	36	123.3	57.5	96	177.6	82.8	56	232.0	108.2
17	15.4	7.2	77	69.8	32.5	37	124.2	57.9	97	178.5	83.3	57	232.9	108.6
18	16.3	7.6	78	70.7	33.0	38	125.1	58.3	98	179.4	83.7	58	233.8	109.0
19	17.2	8.0	79	71.6	33.4	39	126.0	58.7	99	180.4	84.1	59	234.7	109.5
20	18.1	8.5	80	72.5	33.8	40	126.9	59.2	200	181.3	84.5	60	235.6	109.9
21	19.0	8.9	81	73.4	34.2	141	127.8	59.6	201	182.2	84.9	261	236.5	110.3
22	19.9	9.3	82	74.3	34.7	42	128.7	60.0	02	183.1	85.4	62	237.5	110.7
23	20.8	9.7	83	75.2	35.1	43	129.6	60.4	03	184.0	85.8	63	238.4	111.1
24	21.8	10.1	84	76.1	35.5	44	130.5	60.9	04	184.9	86.2	64	239.3	111.6
25	22.7	10.6	85	77.0	35.9	45	131.4	61.3	05	185.8	86.6	65	240.2	112.0
26	23.6	11.0	86	77.9	36.3	46	132.3	61.7	06	186.7	87.1	66	241.1	112.4
27	24.5	11.4	87	78.8	36.8	47	133.2	62.1	07	187.6	87.5	67	242.0	112.8
28	25.4	11.8	88	79.8	37.2	48	134.1	62.5	08	188.5	87.9	68	242.9	113.3
29	26.3	12.3	89	80.7	37.6	49	135.0	63.0	09	189.4	88.3	69	243.8	113.7
30	27.2	12.7	90	81.6	38.0	50	135.9	63.4	10	190.3	88.7	70	244.7	114.1
31	28.1	13.1	91	82.5	38.5	151	136.9	63.8	211	191.2	89.2	271	245.6	114.5
32	29.0	13.5	92	83.4	38.9	52	137.8	64.2	12	192.1	89.6	72	246.5	115.0
33	29.9	13.9	93	84.3	39.3	53	138.7	64.7	13	193.0	90.0	73	247.4	115.4
34	30.8	14.4	94	85.2	39.7	54	139.6	65.1	14	193.9	90.4	74	248.3	115.8
35	31.7	14.8	95	86.1	40.1	55	140.5	65.5	15	194.9	90.9	75	249.2	116.2
36	32.6	15.2	96	87.0	40.6	56	141.4	65.9	16	195.8	91.3	76	250.1	116.6
37	33.5	15.6	97	87.9	41.0	57	142.3	66.4	17	196.7	91.7	77	251.0	117.1
38	34.4	16.1	98	88.8	41.4	58	143.2	66.8	18	197.6	92.1	78	252.0	117.5
39	35.3	16.5	99	89.7	41.8	59	144.1	67.2	19	198.5	92.6	79	252.9	117.9
40	36.3	16.9	100	90.6	42.3	60	145.0	67.6	20	199.4	93.0	80	253.8	118.3
41	37.2	17.3	101	91.5	42.7	161	145.9	68.0	221	200.3	93.4	281	254.7	118.8
42	38.1	17.7	02	92.4	43.1	62	146.8	68.5	22	201.2	93.8	82	255.6	119.2
43	39.0	18.2	03	93.3	43.5	63	147.7	68.9	23	202.1	94.2	83	256.5	119.6
44	39.9	18.6	04	94.3	44.0	64	148.6	69.3	24	203.0	94.7	84	257.4	120.0
45	40.8	19.0	05	95.2	44.4	65	149.5	69.7	25	203.9	95.1	85	258.3	120.4
46	41.7	19.4	06	96.1	44.8	66	150.4	70.2	26	204.8	95.5	86	259.2	120.9
47	42.6	19.9	07	97.0	45.2	67	151.4	70.6	27	205.7	95.9	87	260.1	121.3
48	43.5	20.3	08	97.9	45.6	68	152.3	71.0	28	206.6	96.4	88	261.0	121.7
49	44.4	20.7	09	98.8	46.1	69	153.2	71.4	29	207.5	96.8	89	261.9	122.1
50	45.3	21.1	10	99.7	46.5	70	154.1	71.8	30	208.5	97.2	90	262.8	122.6
51	46.2	21.6	111	100.6	46.9	171	155.0	72.3	231	209.4	97.6	291	263.7	123.0
52	47.1	22.0	12	101.5	47.3	72	155.9	72.7	32	210.3	98.0	92	264.6	123.4
53	48.0	22.4	13	102.4	47.8	73	156.8	73.1	33	211.2	98.5	93	265.5	123.8
54	48.9	22.8	14	103.3	48.2	74	157.7	73.5	34	212.1	98.9	94	266.5	124.2
55	49.8	23.2	15	104.2	48.6	75	158.6	74.0	35	213.0	99.3	95	267.4	124.7
56	50.8	23.7	16	105.1	49.0	76	159.5	74.4	36	213.9	99.7	96	268.3	125.1
57	51.7	24.1	17	106.0	49.4	77	160.4	74.8	37	214.8	100.2	97	269.2	125.5
58	52.6	24.5	18	106.9	49.9	78	161.3	75.2	38	215.7	100.6	98	270.1	125.9
59	53.5	24.9	19	107.9	50.3	79	162.2	75.6	39	216.6	101.0	99	271.0	126.4
60	54.4	25.4	20	108.8	50.7	80	163.1	76.1	40	217.5	101.4	300	271.9	126.8
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

295° | 065°
245° | 115°

65°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

335° | 025°
205° | 155°

Traverse **25°** Table

335° | 025°
205° | 155°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	272.8	127.2	361	327.2	152.6	421	381.6	177.9	481	435.9	203.3	541	490.3	228.6
02	273.7	127.6	62	328.1	153.0	22	382.5	178.3	82	436.8	203.7	42	491.2	229.1
03	274.6	128.1	63	329.0	153.4	23	383.4	178.8	83	437.7	204.1	43	492.1	229.5
04	275.5	128.5	64	329.9	153.8	24	384.3	179.2	84	438.7	204.5	44	493.0	229.9
05	276.4	128.9	65	330.8	154.3	25	385.2	179.6	85	439.6	205.0	45	493.9	230.3
06	277.3	129.3	66	331.7	154.7	26	386.1	180.0	86	440.5	205.4	46	494.8	230.7
07	278.2	129.7	67	332.6	155.1	27	387.0	180.5	87	441.4	205.8	47	495.8	231.2
08	279.1	130.2	68	333.5	155.5	28	387.9	180.9	88	442.3	206.2	48	496.7	231.6
09	280.0	130.6	69	334.4	155.9	29	388.8	181.3	89	443.2	206.7	49	497.6	232.0
10	281.0	131.0	70	335.3	156.4	30	389.7	181.7	90	444.1	207.1	50	498.5	232.4
311	281.9	131.4	371	336.2	156.8	431	390.6	182.1	491	445.0	207.5	551	499.4	232.9
12	282.8	131.9	72	337.1	157.2	32	391.5	182.6	92	445.9	207.9	52	500.3	233.3
13	283.7	132.3	73	338.1	157.6	33	392.4	183.0	93	446.8	208.4	53	501.2	233.7
14	284.6	132.7	74	339.0	158.1	34	393.3	183.4	94	447.7	208.8	54	502.1	234.1
15	285.5	133.1	75	339.9	158.5	35	394.2	183.8	95	448.6	209.2	55	503.0	234.6
16	286.4	133.5	76	340.8	158.9	36	395.2	184.3	96	449.5	209.6	56	503.9	235.0
17	287.3	134.0	77	341.7	159.3	37	396.1	184.7	97	450.4	210.0	57	504.8	235.4
18	288.2	134.4	78	342.6	159.7	38	397.0	185.1	98	451.3	210.5	58	505.7	235.8
19	289.1	134.8	79	343.5	160.2	39	397.9	185.5	99	452.2	210.9	59	506.6	236.2
20	290.0	135.2	80	344.4	160.6	40	398.8	186.0	500	453.2	211.3	60	507.5	236.7
321	290.9	135.7	381	345.3	161.0	441	399.7	186.4	501	454.1	211.7	561	508.4	237.1
22	291.8	136.1	82	346.2	161.4	42	400.6	186.8	02	455.0	212.2	62	509.3	237.5
23	292.7	136.5	83	347.1	161.9	43	401.5	187.2	03	455.9	212.6	63	510.3	237.9
24	293.6	136.9	84	348.0	162.3	44	402.4	187.6	04	456.8	213.0	64	511.2	238.4
25	294.6	137.4	85	348.9	162.7	45	403.3	188.1	05	457.7	213.4	65	512.1	238.8
26	295.5	137.8	86	349.8	163.1	46	404.2	188.5	06	458.6	213.8	66	513.0	239.2
27	296.4	138.2	87	350.7	163.6	47	405.1	188.9	07	459.5	214.3	67	513.9	239.6
28	297.3	138.6	88	351.6	164.0	48	406.0	189.3	08	460.4	214.7	68	514.8	240.0
29	298.2	139.0	89	352.6	164.4	49	406.9	189.8	09	461.3	215.1	69	515.7	240.5
30	299.1	139.5	90	353.5	164.8	50	407.8	190.2	10	462.2	215.5	70	516.6	240.9
331	300.0	139.9	391	354.4	165.2	451	408.7	190.6	511	463.1	216.0	571	517.5	241.3
32	300.9	140.3	92	355.3	165.7	52	409.7	191.0	12	464.0	216.4	72	518.4	241.7
33	301.8	140.7	93	356.2	166.1	53	410.6	191.4	13	464.9	216.8	73	519.3	242.2
34	302.7	141.2	94	357.1	166.5	54	411.5	191.9	14	465.8	217.2	74	520.2	242.6
35	303.6	141.6	95	358.0	166.9	55	412.4	192.3	15	466.7	217.6	75	521.1	243.0
36	304.5	142.0	96	358.9	167.4	56	413.3	192.7	16	467.7	218.1	76	522.0	243.4
37	305.4	142.4	97	359.8	167.8	57	414.2	193.1	17	468.6	218.5	77	522.9	243.9
38	306.3	142.8	98	360.7	168.2	58	415.1	193.6	18	469.5	218.9	78	523.8	244.3
39	307.2	143.3	99	361.6	168.6	59	416.0	194.0	19	470.4	219.3	79	524.8	244.7
40	308.1	143.7	400	362.5	169.0	60	416.9	194.4	20	471.3	219.8	80	525.7	245.1
341	309.1	144.1	401	363.4	169.5	461	417.8	194.8	521	472.2	220.2	581	526.6	245.5
42	310.0	144.5	02	364.3	169.9	62	418.7	195.2	22	473.1	220.6	82	527.5	246.0
43	310.9	145.0	03	365.2	170.3	63	419.6	195.7	23	474.0	221.0	83	528.4	246.4
44	311.8	145.4	04	366.1	170.7	64	420.5	196.1	24	474.9	221.5	84	529.3	246.8
45	312.7	145.8	05	367.1	171.2	65	421.4	196.5	25	475.8	221.9	85	530.2	247.2
46	313.6	146.2	06	368.0	171.6	66	422.3	196.9	26	476.7	222.3	86	531.1	247.7
47	314.5	146.6	07	368.9	172.0	67	423.2	197.4	27	477.6	222.7	87	532.0	248.1
48	315.4	147.1	08	369.8	172.4	68	424.2	197.8	28	478.5	223.1	88	532.9	248.5
49	316.3	147.5	09	370.7	172.9	69	425.1	198.2	29	479.4	223.6	89	533.8	248.9
50	317.2	147.9	10	371.6	173.3	70	426.0	198.6	30	480.3	224.0	90	534.7	249.3
351	318.1	148.3	411	372.5	173.7	471	426.9	199.1	531	481.2	224.4	591	535.6	249.8
52	319.0	148.8	12	373.4	174.1	72	427.8	199.5	32	482.2	224.8	92	536.5	250.2
53	319.9	149.2	13	374.3	174.5	73	428.7	199.9	33	483.1	225.3	93	537.4	250.6
54	320.8	149.6	14	375.2	175.0	74	429.6	200.3	34	484.0	225.7	94	538.3	251.0
55	321.7	150.0	15	376.1	175.4	75	430.5	200.7	35	484.9	226.1	95	539.3	251.5
56	322.6	150.5	16	377.0	175.8	76	431.4	201.2	36	485.8	226.5	96	540.2	251.9
57	323.6	150.9	17	377.9	176.2	77	432.3	201.6	37	486.7	226.9	97	541.1	252.3
58	324.5	151.3	18	378.8	176.7	78	433.2	202.0	38	487.6	227.4	98	542.0	252.7
59	325.4	151.7	19	379.7	177.1	79	434.1	202.4	39	488.5	227.8	99	542.9	253.1
60	326.3	152.1	20	380.6	177.5	80	435.0	202.9	40	489.4	228.2	600	543.8	253.6
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

65°

295° | 065°
245° | 115°

TABLE 4

26° Traverse Table

334° / 206° | 026° / 154°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.9	0.4	61	54.8	26.7	121	108.8	53.0	181	162.7	79.3	241	216.6	105.6
2	1.8	0.9	62	55.7	27.2	22	109.7	53.5	82	163.6	79.8	42	217.5	106.1
3	2.7	1.3	63	56.6	27.6	23	110.6	53.9	83	164.5	80.2	43	218.4	106.5
4	3.6	1.8	64	57.5	28.1	24	111.5	54.4	84	165.4	80.7	44	219.3	107.0
5	4.5	2.2	65	58.4	28.5	25	112.3	54.8	85	166.3	81.1	45	220.2	107.4
6	5.4	2.6	66	59.3	28.9	26	113.2	55.2	86	167.2	81.5	46	221.1	107.8
7	6.3	3.1	67	60.2	29.4	27	114.1	55.7	87	168.1	82.0	47	222.0	108.3
8	7.2	3.5	68	61.1	29.8	28	115.0	56.1	88	169.0	82.4	48	222.9	108.7
9	8.1	3.9	69	62.0	30.2	29	115.9	56.5	89	169.9	82.9	49	223.8	109.2
10	9.0	4.4	70	62.9	30.7	30	116.8	57.0	90	170.8	83.3	50	224.7	109.6
11	9.9	4.8	71	63.8	31.1	131	117.7	57.4	191	171.7	83.7	251	225.6	110.0
12	10.8	5.3	72	64.7	31.6	32	118.6	57.9	92	172.6	84.2	52	226.5	110.5
13	11.7	5.7	73	65.6	32.0	33	119.5	58.3	93	173.5	84.6	53	227.4	110.9
14	12.6	6.1	74	66.5	32.4	34	120.4	58.7	94	174.4	85.0	54	228.3	111.3
15	13.5	6.6	75	67.4	32.9	35	121.3	59.2	95	175.3	85.5	55	229.2	111.8
16	14.4	7.0	76	68.3	33.3	36	122.2	59.6	96	176.2	85.9	56	230.1	112.2
17	15.3	7.5	77	69.2	33.8	37	123.1	60.1	97	177.1	86.4	57	231.0	112.7
18	16.2	7.9	78	70.1	34.2	38	124.0	60.5	98	178.0	86.8	58	231.9	113.1
19	17.1	8.3	79	71.0	34.6	39	124.9	60.9	99	178.9	87.2	59	232.8	113.5
20	18.0	8.8	80	71.9	35.1	40	125.8	61.4	200	179.8	87.7	60	233.7	114.0
21	18.9	9.2	81	72.8	35.5	141	126.7	61.8	201	180.7	88.1	261	234.6	114.4
22	19.8	9.6	82	73.7	35.9	42	127.6	62.2	02	181.6	88.6	62	235.5	114.9
23	20.7	10.1	83	74.6	36.4	43	128.5	62.7	03	182.5	89.0	63	236.4	115.3
24	21.6	10.5	84	75.5	36.8	44	129.4	63.1	04	183.4	89.4	64	237.3	115.7
25	22.5	11.0	85	76.4	37.3	45	130.3	63.6	05	184.3	89.9	65	238.2	116.2
26	23.4	11.4	86	77.3	37.7	46	131.2	64.0	06	185.2	90.3	66	239.1	116.6
27	24.3	11.8	87	78.2	38.1	47	132.1	64.4	07	186.1	90.7	67	240.0	117.0
28	25.2	12.3	88	79.1	38.6	48	133.0	64.9	08	186.9	91.2	68	240.9	117.5
29	26.1	12.7	89	80.0	39.0	49	133.9	65.3	09	187.8	91.6	69	241.8	117.9
30	27.0	13.2	90	80.9	39.5	50	134.8	65.8	10	188.7	92.1	70	242.7	118.4
31	27.9	13.6	91	81.8	39.9	151	135.7	66.2	211	189.6	92.5	271	243.6	118.8
32	28.8	14.0	92	82.7	40.3	52	136.6	66.6	12	190.5	92.9	72	244.5	119.2
33	29.7	14.5	93	83.6	40.8	53	137.5	67.1	13	191.4	93.4	73	245.4	119.7
34	30.6	14.9	94	84.5	41.2	54	138.4	67.5	14	192.3	93.8	74	246.3	120.1
35	31.5	15.3	95	85.4	41.6	55	139.3	67.9	15	193.2	94.2	75	247.2	120.6
36	32.4	15.8	96	86.3	42.1	56	140.2	68.4	16	194.1	94.7	76	248.1	121.0
37	33.3	16.2	97	87.2	42.5	57	141.1	68.8	17	195.0	95.1	77	249.0	121.4
38	34.2	16.7	98	88.1	43.0	58	142.0	69.3	18	195.9	95.6	78	249.9	121.9
39	35.1	17.1	99	89.0	43.4	59	142.9	69.7	19	196.8	96.0	79	250.8	122.3
40	36.0	17.5	100	89.9	43.8	60	143.8	70.1	20	197.7	96.4	80	251.7	122.7
41	36.9	18.0	101	90.8	44.3	161	144.7	70.6	221	198.6	96.9	281	252.6	123.2
42	37.7	18.4	02	91.7	44.7	62	145.6	71.0	22	199.5	97.3	82	253.5	123.6
43	38.6	18.8	03	92.6	45.2	63	146.5	71.5	23	200.4	97.8	83	254.4	124.1
44	39.5	19.3	04	93.5	45.6	64	147.4	71.9	24	201.3	98.2	84	255.3	124.5
45	40.4	19.7	05	94.4	46.0	65	148.3	72.3	25	202.2	98.6	85	256.2	124.9
46	41.3	20.2	06	95.3	46.5	66	149.2	72.8	26	203.1	99.1	86	257.1	125.4
47	42.2	20.6	07	96.2	46.9	67	150.1	73.2	27	204.0	99.5	87	258.0	125.8
48	43.1	21.0	08	97.1	47.3	68	151.0	73.6	28	204.9	99.9	88	258.9	126.3
49	44.0	21.5	09	98.0	47.8	69	151.9	74.1	29	205.8	100.4	89	259.8	126.7
50	44.9	21.9	10	98.9	48.2	70	152.8	74.5	30	206.7	100.8	90	260.7	127.1
51	45.8	22.4	111	99.8	48.7	171	153.7	75.0	231	207.6	101.3	291	261.5	127.6
52	46.7	22.8	12	100.7	49.1	72	154.6	75.4	32	208.5	101.7	92	262.4	128.0
53	47.6	23.2	13	101.6	49.5	73	155.5	75.8	33	209.4	102.1	93	263.3	128.4
54	48.5	23.7	14	102.5	50.0	74	156.4	76.3	34	210.3	102.6	94	264.2	128.9
55	49.4	24.1	15	103.4	50.4	75	157.3	76.7	35	211.2	103.0	95	265.1	129.3
56	50.3	24.5	16	104.3	50.9	76	158.2	77.2	36	212.1	103.5	96	266.0	129.8
57	51.2	25.0	17	105.2	51.3	77	159.1	77.6	37	213.0	103.9	97	266.9	130.2
58	52.1	25.4	18	106.1	51.7	78	160.0	78.0	38	213.9	104.3	98	267.8	130.6
59	53.0	25.9	19	107.0	52.2	79	160.9	78.5	39	214.8	104.8	99	268.7	131.1
60	53.9	26.3	20	107.9	52.6	80	161.8	78.9	40	215.7	105.2	300	269.6	131.5
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

296° / 244° | 064° / 116°

64°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

26° Traverse Table

334° / 206° | 026° / 154°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	270.5	131.9	361	324.5	158.3	421	378.4	184.6	481	432.3	210.9	541	486.2	237.2
02	271.4	132.4	62	325.4	158.7	22	379.3	185.0	82	433.2	211.3	42	487.1	237.6
03	272.3	132.8	63	326.3	159.1	23	380.2	185.4	83	434.1	211.7	43	488.0	238.0
04	273.2	133.3	64	327.2	159.6	24	381.1	185.9	84	435.0	212.2	44	488.9	238.5
05	274.1	133.7	65	328.1	160.0	25	382.0	186.3	85	435.9	212.6	45	489.8	238.9
06	275.0	134.1	66	329.0	160.4	26	382.9	186.7	86	436.8	213.0	46	490.7	239.4
07	275.9	134.6	67	329.9	160.9	27	383.8	187.2	87	437.7	213.5	47	491.6	239.8
08	276.8	135.0	68	330.8	161.3	28	384.7	187.6	88	438.6	213.9	48	492.5	240.2
09	277.7	135.5	69	331.7	161.8	29	385.6	188.1	89	439.5	214.4	49	493.4	240.7
10	278.6	135.9	70	332.6	162.2	30	386.5	188.5	90	440.4	214.8	50	494.3	241.1
311	279.5	136.3	371	333.5	162.6	431	387.4	188.9	491	441.3	215.2	551	495.2	241.5
12	280.4	136.8	72	334.4	163.1	32	388.3	189.4	92	442.2	215.7	52	496.1	242.0
13	281.3	137.2	73	335.3	163.5	33	389.2	189.8	93	443.1	216.1	53	497.0	242.4
14	282.2	137.6	74	336.1	164.0	34	390.1	190.3	94	444.0	216.6	54	497.9	242.9
15	283.1	138.1	75	337.0	164.4	35	391.0	190.7	95	444.9	217.0	55	498.8	243.3
16	284.0	138.5	76	337.9	164.8	36	391.9	191.1	96	445.8	217.4	56	499.7	243.7
17	284.9	139.0	77	338.8	165.3	37	392.8	191.6	97	446.7	217.9	57	500.6	244.2
18	285.8	139.4	78	339.7	165.7	38	393.7	192.0	98	447.6	218.3	58	501.5	244.6
19	286.7	139.8	79	340.6	166.1	39	394.6	192.4	99	448.5	218.7	59	502.4	245.0
20	287.6	140.3	80	341.5	166.6	40	395.5	192.9	500	449.4	219.2	60	503.3	245.5
321	288.5	140.7	381	342.4	167.0	441	396.4	193.3	501	450.3	219.6	561	504.2	245.9
22	289.4	141.2	82	343.3	167.5	42	397.3	193.8	02	451.2	220.1	62	505.1	246.4
23	290.3	141.6	83	344.2	167.9	43	398.2	194.2	03	452.1	220.5	63	506.0	246.8
24	291.2	142.0	84	345.1	168.3	44	399.1	194.6	04	453.0	220.9	64	506.9	247.2
25	292.1	142.5	85	346.0	168.8	45	400.0	195.1	05	453.9	221.4	65	507.8	247.7
26	293.0	142.9	86	346.9	169.2	46	400.9	195.5	06	454.8	221.8	66	508.7	248.1
27	293.9	143.3	87	347.8	169.6	47	401.8	196.0	07	455.7	222.3	67	509.6	248.6
28	294.8	143.8	88	348.7	170.1	48	402.7	196.4	08	456.6	222.7	68	510.5	249.0
29	295.7	144.2	89	349.6	170.5	49	403.6	196.8	09	457.5	223.1	69	511.4	249.4
30	296.6	144.7	90	350.5	171.0	50	404.5	197.3	10	458.4	223.6	70	512.3	249.9
331	297.5	145.1	391	351.4	171.4	451	405.4	197.7	511	459.3	224.0	571	513.2	250.3
32	298.4	145.5	92	352.3	171.8	52	406.3	198.1	12	460.2	224.4	72	514.1	250.7
33	299.3	146.0	93	353.2	172.3	53	407.2	198.6	13	461.1	224.9	73	515.0	251.2
34	300.2	146.4	94	354.1	172.7	54	408.1	199.0	14	462.0	225.3	74	515.9	251.6
35	301.1	146.9	95	355.0	173.2	55	409.0	199.5	15	462.9	225.8	75	516.8	252.1
36	302.0	147.3	96	355.9	173.6	56	409.9	199.9	16	463.8	226.2	76	517.7	252.5
37	302.9	147.7	97	356.8	174.0	57	410.7	200.3	17	464.7	226.6	77	518.6	252.9
38	303.8	148.2	98	357.7	174.5	58	411.6	200.8	18	465.6	227.1	78	519.5	253.4
39	304.7	148.6	99	358.6	174.9	59	412.5	201.2	19	466.5	227.5	79	520.4	253.8
40	305.6	149.0	400	359.5	175.3	60	413.4	201.7	20	467.4	228.0	80	521.3	254.3
341	306.5	149.5	401	360.4	175.8	461	414.3	202.1	521	468.3	228.4	581	522.2	254.7
42	307.4	149.9	02	361.3	176.2	62	415.2	202.5	22	469.2	228.8	82	523.1	255.1
43	308.3	150.4	03	362.2	176.7	63	416.1	203.0	23	470.1	229.3	83	524.0	255.6
44	309.2	150.8	04	363.1	177.1	64	417.0	203.4	24	471.0	229.7	84	524.9	256.0
45	310.1	151.2	05	364.0	177.5	65	417.9	203.8	25	471.9	230.1	85	525.8	256.4
46	311.0	151.7	06	364.9	178.0	66	418.8	204.3	26	472.8	230.6	86	526.7	256.9
47	311.9	152.1	07	365.8	178.4	67	419.7	204.7	27	473.7	231.0	87	527.6	257.3
48	312.8	152.6	08	366.7	178.9	68	420.6	205.2	28	474.6	231.5	88	528.5	257.8
49	313.7	153.0	09	367.6	179.3	69	421.5	205.6	29	475.5	231.9	89	529.4	258.2
50	314.6	153.4	10	368.5	179.7	70	422.4	206.0	30	476.4	232.3	90	530.3	258.6
351	315.5	153.9	411	369.4	180.2	471	423.3	206.5	531	477.3	232.8	591	531.2	259.1
52	316.4	154.3	12	370.3	180.6	72	424.2	206.9	32	478.2	233.2	92	532.1	259.5
53	317.3	154.7	13	371.2	181.0	73	425.1	207.3	33	479.1	233.7	93	533.0	260.0
54	318.2	155.2	14	372.1	181.5	74	426.0	207.8	34	480.0	234.1	94	533.9	260.4
55	319.1	155.6	15	373.0	181.9	75	426.9	208.2	35	480.9	234.5	95	534.8	260.8
56	320.0	156.1	16	373.9	182.4	76	427.8	208.7	36	481.8	235.0	96	535.7	261.3
57	320.9	156.5	17	374.8	182.8	77	428.7	209.1	37	482.7	235.4	97	536.6	261.7
58	321.8	156.9	18	375.7	183.2	78	429.6	209.5	38	483.6	235.8	98	537.5	262.1
59	322.7	157.4	19	376.6	183.7	79	430.5	210.0	39	484.4	236.3	99	538.4	262.6
60	323.6	157.8	20	377.5	184.1	80	431.4	210.4	40	485.3	236.7	600	539.3	263.0
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

296° / 244° | 064° / 116°

64°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

333° | 027°
207° | 153°

Traverse **27°** Table

333° | 027°
207° | 153°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.9	0.5	61	54.4	27.7	121	107.8	54.9	181	161.3	82.2	241	214.7	109.4
2	1.8	0.9	62	55.2	28.1	22	108.7	55.4	82	162.2	82.6	42	215.6	109.9
3	2.7	1.4	63	56.1	28.6	23	109.6	55.8	83	163.1	83.1	43	216.5	110.3
4	3.6	1.8	64	57.0	29.1	24	110.5	56.3	84	163.9	83.5	44	217.4	110.8
5	4.5	2.3	65	57.9	29.5	25	111.4	56.7	85	164.8	84.0	45	218.3	111.2
6	5.3	2.7	66	58.8	30.0	26	112.3	57.2	86	165.7	84.4	46	219.2	111.7
7	6.2	3.2	67	59.7	30.4	27	113.2	57.7	87	166.6	84.9	47	220.1	112.1
8	7.1	3.6	68	60.6	30.9	28	114.0	58.1	88	167.5	85.4	48	221.0	112.6
9	8.0	4.1	69	61.5	31.3	29	114.9	58.6	89	168.4	85.8	49	221.9	113.0
10	8.9	4.5	70	62.4	31.8	30	115.8	59.0	90	169.3	86.3	50	222.8	113.5
11	9.8	5.0	71	63.3	32.2	131	116.7	59.5	191	170.2	86.7	251	223.6	114.0
12	10.7	5.4	72	64.2	32.7	32	117.6	59.9	92	171.1	87.2	52	224.5	114.4
13	11.6	5.9	73	65.0	33.1	33	118.5	60.4	93	172.0	87.6	53	225.4	114.9
14	12.5	6.4	74	65.9	33.6	34	119.4	60.8	94	172.9	88.1	54	226.3	115.3
15	13.4	6.8	75	66.8	34.0	35	120.3	61.3	95	173.7	88.5	55	227.2	115.8
16	14.3	7.3	76	67.7	34.5	36	121.2	61.7	96	174.6	89.0	56	228.1	116.2
17	15.1	7.7	77	68.6	35.0	37	122.1	62.2	97	175.5	89.4	57	229.0	116.7
18	16.0	8.2	78	69.5	35.4	38	123.0	62.7	98	176.4	89.9	58	229.9	117.1
19	16.9	8.6	79	70.4	35.9	39	123.8	63.1	99	177.3	90.3	59	230.8	117.6
20	17.8	9.1	80	71.3	36.3	40	124.7	63.6	200	178.2	90.8	60	231.7	118.0
21	18.7	9.5	81	72.2	36.8	141	125.6	64.0	201	179.1	91.3	261	232.6	118.5
22	19.6	10.0	82	73.1	37.2	42	126.5	64.5	02	180.0	91.7	62	233.4	118.9
23	20.5	10.4	83	74.0	37.7	43	127.4	64.9	03	180.9	92.2	63	234.3	119.4
24	21.4	10.9	84	74.8	38.1	44	128.3	65.4	04	181.8	92.6	64	235.2	119.9
25	22.3	11.3	85	75.7	38.6	45	129.2	65.8	05	182.7	93.1	65	236.1	120.3
26	23.2	11.8	86	76.6	39.0	46	130.1	66.3	06	183.5	93.5	66	237.0	120.8
27	24.1	12.3	87	77.5	39.5	47	131.0	66.7	07	184.4	94.0	67	237.9	121.2
28	24.9	12.7	88	78.4	40.0	48	131.9	67.2	08	185.3	94.4	68	238.8	121.7
29	25.8	13.2	89	79.3	40.4	49	132.8	67.6	09	186.2	94.9	69	239.7	122.1
30	26.7	13.6	90	80.2	40.9	50	133.7	68.1	10	187.1	95.3	70	240.6	122.6
31	27.6	14.1	91	81.1	41.3	151	134.5	68.6	211	188.0	95.8	271	241.5	123.0
32	28.5	14.5	92	82.0	41.8	52	135.4	69.0	12	188.9	96.2	72	242.4	123.5
33	29.4	15.0	93	82.9	42.2	53	136.3	69.5	13	189.8	96.7	73	243.2	123.9
34	30.3	15.4	94	83.8	42.7	54	137.2	69.9	14	190.7	97.2	74	244.1	124.4
35	31.2	15.9	95	84.6	43.1	55	138.1	70.4	15	191.6	97.6	75	245.0	124.8
36	32.1	16.3	96	85.5	43.6	56	139.0	70.8	16	192.5	98.1	76	245.9	125.3
37	33.0	16.8	97	86.4	44.0	57	139.9	71.3	17	193.3	98.5	77	246.8	125.8
38	33.9	17.3	98	87.3	44.5	58	140.8	71.7	18	194.2	99.0	78	247.7	126.2
39	34.7	17.7	99	88.2	44.9	59	141.7	72.2	19	195.1	99.4	79	248.6	126.7
40	35.6	18.2	100	89.1	45.4	60	142.6	72.6	20	196.0	99.9	80	249.5	127.1
41	36.5	18.6	101	90.0	45.9	161	143.5	73.1	221	196.9	100.3	281	250.4	127.6
42	37.4	19.1	02	90.9	46.3	62	144.3	73.5	22	197.8	100.8	82	251.3	128.0
43	38.3	19.5	03	91.8	46.8	63	145.2	74.0	23	198.7	101.2	83	252.2	128.5
44	39.2	20.0	04	92.7	47.2	64	146.1	74.5	24	199.6	101.7	84	253.0	128.9
45	40.1	20.4	05	93.6	47.7	65	147.0	74.9	25	200.5	102.1	85	253.9	129.4
46	41.0	20.9	06	94.4	48.1	66	147.9	75.4	26	201.4	102.6	86	254.8	129.8
47	41.9	21.3	07	95.3	48.6	67	148.8	75.8	27	202.3	103.1	87	255.7	130.3
48	42.8	21.8	08	96.2	49.0	68	149.7	76.3	28	203.1	103.5	88	256.6	130.7
49	43.7	22.2	09	97.1	49.5	69	150.6	76.7	29	204.0	104.0	89	257.5	131.2
50	44.6	22.7	10	98.0	49.9	70	151.5	77.2	30	204.9	104.4	90	258.4	131.7
51	45.4	23.2	111	98.9	50.4	171	152.4	77.6	231	205.8	104.9	291	259.3	132.1
52	46.3	23.6	12	99.8	50.8	72	153.3	78.1	32	206.7	105.3	92	260.2	132.6
53	47.2	24.1	13	100.7	51.3	73	154.1	78.5	33	207.6	105.8	93	261.1	133.0
54	48.1	24.5	14	101.6	51.8	74	155.0	79.0	34	208.5	106.2	94	262.0	133.5
55	49.0	25.0	15	102.5	52.2	75	155.9	79.4	35	209.4	106.7	95	262.8	133.9
56	49.9	25.4	16	103.4	52.7	76	156.8	79.9	36	210.3	107.1	96	263.7	134.4
57	50.8	25.9	17	104.2	53.1	77	157.7	80.4	37	211.2	107.6	97	264.6	134.8
58	51.7	26.3	18	105.1	53.6	78	158.6	80.8	38	212.1	108.0	98	265.5	135.3
59	52.6	26.8	19	106.0	54.0	79	159.5	81.3	39	213.0	108.5	99	266.4	135.7
60	53.5	27.2	20	106.9	54.5	80	160.4	81.7	40	213.8	109.0	300	267.3	136.2
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

297° | 063°
243° | 117°

63°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

333° | 027°
207° | 153°

Traverse **27°** Table

333° | 027°
207° | 153°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	268.2	136.7	361	321.7	163.9	421	375.1	191.1	481	428.6	218.4	541	482.0	245.6
02	269.1	137.1	62	322.5	164.3	22	376.0	191.6	82	429.5	218.8	42	482.9	246.1
03	270.0	137.6	63	323.4	164.8	23	376.9	192.0	83	430.4	219.3	43	483.8	246.5
04	270.9	138.0	64	324.3	165.3	24	377.8	192.5	84	431.2	219.7	44	484.7	247.0
05	271.8	138.5	65	325.2	165.7	25	378.7	192.9	85	432.1	220.2	45	485.6	247.4
06	272.6	138.9	66	326.1	166.2	26	379.6	193.4	86	433.0	220.6	46	486.5	247.9
07	273.5	139.4	67	327.0	166.6	27	380.5	193.9	87	433.9	221.1	47	487.4	248.3
08	274.4	139.8	68	327.9	167.1	28	381.4	194.3	88	434.8	221.5	48	488.3	248.8
09	275.3	140.3	69	328.8	167.5	29	382.2	194.8	89	435.7	222.0	49	489.2	249.2
10	276.2	140.7	70	329.7	168.0	30	383.1	195.2	90	436.6	222.5	50	490.1	249.7
311	277.1	141.2	371	330.6	168.4	431	384.0	195.7	491	437.5	222.9	551	490.9	250.1
12	278.0	141.6	72	331.5	168.9	32	384.9	196.1	92	438.4	223.4	52	491.8	250.6
13	278.9	142.1	73	332.3	169.3	33	385.8	196.6	93	439.3	223.8	53	492.7	251.1
14	279.8	142.6	74	333.2	169.8	34	386.7	197.0	94	440.2	224.3	54	493.6	251.5
15	280.7	143.0	75	334.1	170.2	35	387.6	197.5	95	441.0	224.7	55	494.5	252.0
16	281.6	143.5	76	335.0	170.7	36	388.5	197.9	96	441.9	225.2	56	495.4	252.4
17	282.4	143.9	77	335.9	171.2	37	389.4	198.4	97	442.8	225.6	57	496.3	252.9
18	283.3	144.4	78	336.8	171.6	38	390.3	198.8	98	443.7	226.1	58	497.2	253.3
19	284.2	144.8	79	337.7	172.1	39	391.2	199.3	99	444.6	226.5	59	498.1	253.8
20	285.1	145.3	80	338.6	172.5	40	392.0	199.8	500	445.5	227.0	60	499.0	254.2
321	286.0	145.7	381	339.5	173.0	441	392.9	200.2	501	446.4	227.4	561	499.9	254.7
22	286.9	146.2	82	340.4	173.4	42	393.8	200.7	02	447.3	227.9	62	500.7	255.1
23	287.8	146.6	83	341.3	173.9	43	394.7	201.1	03	448.2	228.4	63	501.6	255.6
24	288.7	147.1	84	342.1	174.3	44	395.6	201.6	04	449.1	228.8	64	502.5	256.1
25	289.6	147.5	85	343.0	174.8	45	396.5	202.0	05	450.0	229.3	65	503.4	256.5
26	290.5	148.0	86	343.9	175.2	46	397.4	202.5	06	450.8	229.7	66	504.3	257.0
27	291.4	148.5	87	344.8	175.7	47	398.3	202.9	07	451.7	230.2	67	505.2	257.4
28	292.3	148.9	88	345.7	176.1	48	399.2	203.4	08	452.6	230.6	68	506.1	257.9
29	293.1	149.4	89	346.6	176.6	49	400.1	203.8	09	453.5	231.1	69	507.0	258.3
30	294.0	149.8	90	347.5	177.1	50	401.0	204.3	10	454.4	231.5	70	507.9	258.8
331	294.9	150.3	391	348.4	177.5	451	401.8	204.7	511	455.3	232.0	571	508.8	259.2
32	295.8	150.7	92	349.3	178.0	52	402.7	205.2	12	456.2	232.4	72	509.7	259.7
33	296.7	151.2	93	350.2	178.4	53	403.6	205.7	13	457.1	232.9	73	510.5	260.1
34	297.6	151.6	94	351.1	178.9	54	404.5	206.1	14	458.0	233.4	74	511.4	260.6
35	298.5	152.1	95	351.9	179.3	55	405.4	206.6	15	458.9	233.8	75	512.3	261.0
36	299.4	152.5	96	352.8	179.8	56	406.3	207.0	16	459.8	234.3	76	513.2	261.5
37	300.3	153.0	97	353.7	180.2	57	407.2	207.5	17	460.7	234.7	77	514.1	262.0
38	301.2	153.4	98	354.6	180.7	58	408.1	207.9	18	461.5	235.2	78	515.0	262.4
39	302.1	153.9	99	355.5	181.1	59	409.0	208.4	19	462.4	235.6	79	515.9	262.9
40	302.9	154.4	400	356.4	181.6	60	409.9	208.8	20	463.3	236.1	80	516.8	263.3
341	303.8	154.8	401	357.3	182.1	461	410.8	209.3	521	464.2	236.5	581	517.7	263.8
42	304.7	155.3	02	358.2	182.5	62	411.6	209.7	22	465.1	237.0	82	518.6	264.2
43	305.6	155.7	03	359.1	183.0	63	412.5	210.2	23	466.0	237.4	83	519.5	264.7
44	306.5	156.2	04	360.0	183.4	64	413.4	210.7	24	466.9	237.9	84	520.3	265.1
45	307.4	156.6	05	360.9	183.9	65	414.3	211.1	25	467.8	238.3	85	521.2	265.6
46	308.3	157.1	06	361.7	184.3	66	415.2	211.6	26	468.7	238.8	86	522.1	266.0
47	309.2	157.5	07	362.6	184.8	67	416.1	212.0	27	469.6	239.3	87	523.0	266.5
48	310.1	158.0	08	363.5	185.2	68	417.0	212.5	28	470.5	239.7	88	523.9	266.9
49	311.0	158.4	09	364.4	185.7	69	417.9	212.9	29	471.3	240.2	89	524.8	267.4
50	311.9	158.9	10	365.3	186.1	70	418.8	213.4	30	472.2	240.6	90	525.7	267.9
351	312.7	159.4	411	366.2	186.6	471	419.7	213.8	531	473.1	241.1	591	526.6	268.3
52	313.6	159.8	12	367.1	187.0	72	420.6	214.3	32	474.0	241.5	92	527.5	268.8
53	314.5	160.3	13	368.0	187.5	73	421.4	214.7	33	474.9	242.0	93	528.4	269.2
54	315.4	160.7	14	368.9	188.0	74	422.3	215.2	34	475.8	242.4	94	529.3	269.7
55	316.3	161.2	15	369.8	188.4	75	423.2	215.6	35	476.7	242.9	95	530.1	270.1
56	317.2	161.6	16	370.7	188.9	76	424.1	216.1	36	477.6	243.3	96	531.0	270.6
57	318.1	162.1	17	371.5	189.3	77	425.0	216.6	37	478.5	243.8	97	531.9	271.0
58	319.0	162.5	18	372.4	189.8	78	425.9	217.0	38	479.4	244.2	98	532.8	271.5
59	319.9	163.0	19	373.3	190.2	79	426.8	217.5	39	480.3	244.7	99	533.7	271.9
60	320.8	163.4	20	374.2	190.7	80	427.7	217.9	40	481.1	245.2	600	534.6	272.4
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

63°

297° | 063°
243° | 117°

TABLE 4

28° Traverse Table

332° / 208°	028° / 152°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.9	0.5	61	53.9	28.6	121	106.8	56.8	181	159.8	85.0	241	212.8	113.1
2	1.8	0.9	62	54.7	29.1	22	107.7	57.3	82	160.7	85.4	42	213.7	113.6
3	2.6	1.4	63	55.6	29.6	23	108.6	57.7	83	161.6	85.9	43	214.6	114.1
4	3.5	1.9	64	56.5	30.0	24	109.5	58.2	84	162.5	86.4	44	215.4	114.6
5	4.4	2.3	65	57.4	30.5	25	110.4	58.7	85	163.3	86.9	45	216.3	115.0
6	5.3	2.8	66	58.3	31.0	26	111.3	59.2	86	164.2	87.3	46	217.2	115.5
7	6.2	3.3	67	59.2	31.5	27	112.1	59.6	87	165.1	87.8	47	218.1	116.0
8	7.1	3.8	68	60.0	31.9	28	113.0	60.1	88	166.0	88.3	48	219.0	116.4
9	7.9	4.2	69	60.9	32.4	29	113.9	60.6	89	166.9	88.7	49	219.9	116.9
10	8.8	4.7	70	61.8	32.9	30	114.8	61.0	90	167.8	89.2	50	220.7	117.4
11	9.7	5.2	71	62.7	33.3	131	115.7	61.5	191	168.6	89.7	251	221.6	117.8
12	10.6	5.6	72	63.6	33.8	32	116.5	62.0	92	169.5	90.1	52	222.5	118.3
13	11.5	6.1	73	64.5	34.3	33	117.4	62.4	93	170.4	90.6	53	223.4	118.8
14	12.4	6.6	74	65.3	34.7	34	118.3	62.9	94	171.3	91.1	54	224.3	119.2
15	13.2	7.0	75	66.2	35.2	35	119.2	63.4	95	172.2	91.5	55	225.2	119.7
16	14.1	7.5	76	67.1	35.7	36	120.1	63.8	96	173.1	92.0	56	226.0	120.2
17	15.0	8.0	77	68.0	36.1	37	121.0	64.3	97	173.9	92.5	57	226.9	120.7
18	15.9	8.5	78	68.9	36.6	38	121.8	64.8	98	174.8	93.0	58	227.8	121.1
19	16.8	8.9	79	69.8	37.1	39	122.7	65.3	99	175.7	93.4	59	228.7	121.6
20	17.7	9.4	80	70.6	37.6	40	123.6	65.7	200	176.6	93.9	60	229.6	122.1
21	18.5	9.9	81	71.5	38.0	141	124.5	66.2	201	177.5	94.4	261	230.4	122.5
22	19.4	10.3	82	72.4	38.5	42	125.4	66.7	02	178.4	94.8	62	231.3	123.0
23	20.3	10.8	83	73.3	39.0	43	126.3	67.1	03	179.2	95.3	63	232.2	123.5
24	21.2	11.3	84	74.2	39.4	44	127.1	67.6	04	180.1	95.8	64	233.1	123.9
25	22.1	11.7	85	75.1	39.9	45	128.0	68.1	05	181.0	96.2	65	234.0	124.4
26	23.0	12.2	86	75.9	40.4	46	128.9	68.5	06	181.9	96.7	66	234.9	124.9
27	23.8	12.7	87	76.8	40.8	47	129.8	69.0	07	182.8	97.2	67	235.7	125.3
28	24.7	13.1	88	77.7	41.3	48	130.7	69.5	08	183.7	97.7	68	236.6	125.8
29	25.6	13.6	89	78.6	41.8	49	131.6	70.0	09	184.5	98.1	69	237.5	126.3
30	26.5	14.1	90	79.5	42.3	50	132.4	70.4	10	185.4	98.6	70	238.4	126.8
31	27.4	14.6	91	80.3	42.7	151	133.3	70.9	211	186.3	99.1	271	239.3	127.2
32	28.3	15.0	92	81.2	43.2	52	134.2	71.4	12	187.2	99.5	72	240.2	127.7
33	29.1	15.5	93	82.1	43.7	53	135.1	71.8	13	188.1	100.0	73	241.0	128.2
34	30.0	16.0	94	83.0	44.1	54	136.0	72.3	14	189.0	100.5	74	241.9	128.6
35	30.9	16.4	95	83.9	44.6	55	136.9	72.8	15	189.8	100.9	75	242.8	129.1
36	31.8	16.9	96	84.8	45.1	56	137.7	73.2	16	190.7	101.4	76	243.7	129.6
37	32.7	17.4	97	85.6	45.5	57	138.6	73.7	17	191.6	101.9	77	244.6	130.0
38	33.6	17.8	98	86.5	46.0	58	139.5	74.2	18	192.5	102.3	78	245.5	130.5
39	34.4	18.3	99	87.4	46.5	59	140.4	74.6	19	193.4	102.8	79	246.3	131.0
40	35.3	18.8	100	88.3	46.9	60	141.3	75.1	20	194.2	103.3	80	247.2	131.5
41	36.2	19.2	101	89.2	47.4	161	142.2	75.6	221	195.1	103.8	281	248.1	131.9
42	37.1	19.7	02	90.1	47.9	62	143.0	76.1	22	196.0	104.2	82	249.0	132.4
43	38.0	20.2	03	90.9	48.4	63	143.9	76.5	23	196.9	104.7	83	249.9	132.9
44	38.8	20.7	04	91.8	48.8	64	144.8	77.0	24	197.8	105.2	84	250.8	133.3
45	39.7	21.1	05	92.7	49.3	65	145.7	77.5	25	198.7	105.6	85	251.6	133.8
46	40.6	21.6	06	93.6	49.8	66	146.6	77.9	26	199.5	106.1	86	252.5	134.3
47	41.5	22.1	07	94.5	50.2	67	147.5	78.4	27	200.4	106.6	87	253.4	134.7
48	42.4	22.5	08	95.4	50.7	68	148.3	78.9	28	201.3	107.0	88	254.3	135.2
49	43.3	23.0	09	96.2	51.2	69	149.2	79.3	29	202.2	107.5	89	255.2	135.7
50	44.1	23.5	10	97.1	51.6	70	150.1	79.8	30	203.1	108.0	90	256.1	136.1
51	45.0	23.9	111	98.0	52.1	171	151.0	80.3	231	204.0	108.4	291	256.9	136.6
52	45.9	24.4	12	98.9	52.6	72	151.9	80.7	32	204.8	108.9	92	257.8	137.1
53	46.8	24.9	13	99.8	53.1	73	152.7	81.2	33	205.7	109.4	93	258.7	137.6
54	47.7	25.4	14	100.7	53.5	74	153.6	81.7	34	206.6	109.9	94	259.6	138.0
55	48.6	25.8	15	101.5	54.0	75	154.5	82.2	35	207.5	110.3	95	260.5	138.5
56	49.4	26.3	16	102.4	54.5	76	155.4	82.6	36	208.4	110.8	96	261.4	139.0
57	50.3	26.8	17	103.3	54.9	77	156.3	83.1	37	209.3	111.3	97	262.2	139.4
58	51.2	27.2	18	104.2	55.4	78	157.2	83.6	38	210.1	111.7	98	263.1	139.9
59	52.1	27.7	19	105.1	55.9	79	158.0	84.0	39	211.0	112.2	99	264.0	140.4
60	53.0	28.2	20	106.0	56.3	80	158.9	84.5	40	211.9	112.7	300	264.9	140.8
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

298° / 242°	062° / 118°

62°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

28° Traverse Table

332° / 208°	028° / 152°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	265.8	141.3	361	318.7	169.5	421	371.7	197.6	481	424.7	225.8	541	477.7	254.0
02	266.7	141.8	62	319.6	169.9	22	372.6	198.1	82	425.6	226.3	42	478.6	254.5
03	267.5	142.2	63	320.5	170.4	23	373.5	198.6	83	426.5	226.8	43	479.4	254.9
04	268.4	142.7	64	321.4	170.9	24	374.4	199.1	84	427.3	227.2	44	480.3	255.4
05	269.3	143.2	65	322.3	171.4	25	375.3	199.5	85	428.2	227.7	45	481.2	255.9
06	270.2	143.7	66	323.2	171.8	26	376.1	200.0	86	429.1	228.2	46	482.1	256.3
07	271.1	144.1	67	324.0	172.3	27	377.0	200.5	87	430.0	228.6	47	483.0	256.8
08	271.9	144.6	68	324.9	172.8	28	377.9	200.9	88	430.9	229.1	48	483.9	257.3
09	272.8	145.1	69	325.8	173.2	29	378.8	201.4	89	431.8	229.6	49	484.7	257.7
10	273.7	145.5	70	326.7	173.7	30	379.7	201.9	90	432.6	230.0	50	485.6	258.2
311	274.6	146.0	371	327.6	174.2	431	380.6	202.3	491	433.5	230.5	551	486.5	258.7
12	275.5	146.5	72	328.5	174.6	32	381.4	202.8	92	434.4	231.0	52	487.4	259.1
13	276.4	146.9	73	329.3	175.1	33	382.3	203.3	93	435.3	231.4	53	488.3	259.6
14	277.2	147.4	74	330.2	175.6	34	383.2	203.8	94	436.2	231.9	54	489.2	260.1
15	278.1	147.9	75	331.1	176.1	35	384.1	204.2	95	437.1	232.4	55	490.0	260.6
16	279.0	148.4	76	332.0	176.5	36	385.0	204.7	96	437.9	232.9	56	490.9	261.0
17	279.9	148.8	77	332.9	177.0	37	385.8	205.2	97	438.8	233.3	57	491.8	261.5
18	280.8	149.3	78	333.8	177.5	38	386.7	205.6	98	439.7	233.8	58	492.7	262.0
19	281.7	149.8	79	334.6	177.9	39	387.6	206.1	99	440.6	234.3	59	493.6	262.4
20	282.5	150.2	80	335.5	178.4	40	388.5	206.6	500	441.5	234.7	60	494.5	262.9
321	283.4	150.7	381	336.4	178.9	441	389.4	207.0	501	442.4	235.2	561	495.3	263.4
22	284.3	151.2	82	337.3	179.3	42	390.3	207.5	02	443.2	235.7	62	496.2	263.8
23	285.2	151.6	83	338.2	179.8	43	391.1	208.0	03	444.1	236.1	63	497.1	264.3
24	286.1	152.1	84	339.1	180.3	44	392.0	208.4	04	445.0	236.6	64	498.0	264.8
25	287.0	152.6	85	339.9	180.7	45	392.9	208.9	05	445.9	237.1	65	498.9	265.3
26	287.8	153.0	86	340.8	181.2	46	393.8	209.4	06	446.8	237.6	66	499.7	265.7
27	288.7	153.5	87	341.7	181.7	47	394.7	209.9	07	447.7	238.0	67	500.6	266.2
28	289.6	154.0	88	342.6	182.2	48	395.6	210.3	08	448.5	238.5	68	501.5	266.7
29	290.5	154.5	89	343.5	182.6	49	396.4	210.8	09	449.4	239.0	69	502.4	267.1
30	291.4	154.9	90	344.3	183.1	50	397.3	211.3	10	450.3	239.4	70	503.3	267.6
331	292.3	155.4	391	345.2	183.6	451	398.2	211.7	511	451.2	239.9	571	504.2	268.1
32	293.1	155.9	92	346.1	184.0	52	399.1	212.2	12	452.1	240.4	72	505.0	268.5
33	294.0	156.3	93	347.0	184.5	53	400.0	212.7	13	453.0	240.8	73	505.9	269.0
34	294.9	156.8	94	347.9	185.0	54	400.9	213.1	14	453.8	241.3	74	506.8	269.5
35	295.8	157.3	95	348.8	185.4	55	401.7	213.6	15	454.7	241.8	75	507.7	269.9
36	296.7	157.7	96	349.6	185.9	56	402.6	214.1	16	455.6	242.2	76	508.6	270.4
37	297.6	158.2	97	350.5	186.4	57	403.5	214.5	17	456.5	242.7	77	509.5	270.9
38	298.4	158.7	98	351.4	186.8	58	404.4	215.0	18	457.4	243.2	78	510.3	271.4
39	299.3	159.2	99	352.3	187.3	59	405.3	215.5	19	458.2	243.7	79	511.2	271.8
40	300.2	159.6	400	353.2	187.8	60	406.2	216.0	20	459.1	244.1	80	512.1	272.3
341	301.1	160.1	401	354.1	188.3	461	407.0	216.4	521	460.0	244.6	581	513.0	272.8
42	302.0	160.6	02	354.9	188.7	62	407.9	216.9	22	460.9	245.1	82	513.9	273.2
43	302.9	161.0	03	355.8	189.2	63	408.8	217.4	23	461.8	245.5	83	514.8	273.7
44	303.7	161.5	04	356.7	189.7	64	409.7	217.8	24	462.7	246.0	84	515.6	274.2
45	304.6	162.0	05	357.6	190.1	65	410.6	218.3	25	463.5	246.5	85	516.5	274.6
46	305.5	162.4	06	358.5	190.6	66	411.5	218.8	26	464.4	246.9	86	517.4	275.1
47	306.4	162.9	07	359.4	191.1	67	412.3	219.2	27	465.3	247.4	87	518.3	275.6
48	307.3	163.4	08	360.2	191.5	68	413.2	219.7	28	466.2	247.9	88	519.2	276.0
49	308.1	163.8	09	361.1	192.0	69	414.1	220.2	29	467.1	248.4	89	520.1	276.5
50	309.0	164.3	10	362.0	192.5	70	415.0	220.7	30	468.0	248.8	90	520.9	277.0
351	309.9	164.8	411	362.9	193.0	471	415.9	221.1	531	468.8	249.3	591	521.8	277.5
52	310.8	165.3	12	363.8	193.4	72	416.8	221.6	32	469.7	249.8	92	522.7	277.9
53	311.7	165.7	13	364.7	193.9	73	417.6	222.1	33	470.6	250.2	93	523.6	278.4
54	312.6	166.2	14	365.5	194.4	74	418.5	222.5	34	471.5	250.7	94	524.5	278.9
55	313.4	166.7	15	366.4	194.8	75	419.4	223.0	35	472.4	251.2	95	525.4	279.3
56	314.3	167.1	16	367.3	195.3	76	420.3	223.5	36	473.3	251.6	96	526.2	279.8
57	315.2	167.6	17	368.2	195.8	77	421.2	223.9	37	474.1	252.1	97	527.1	280.3
58	316.1	168.1	18	369.1	196.2	78	422.0	224.4	38	475.0	252.6	98	528.0	280.7
59	317.0	168.5	19	370.0	196.7	79	422.9	224.9	39	475.9	253.0	99	528.9	281.2
60	317.9	169.0	20	370.8	197.2	80	423.8	225.3	40	476.8	253.5	600	529.8	281.7
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

62°

298° / 242°	062° / 118°

TABLE 4

331° | 029°
209° | 151°

Traverse **29°** Table

331° | 029°
209° | 151°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.9	0.5	61	53.4	29.6	121	105.8	58.7	181	158.3	87.8	241	210.8	116.8
2	1.7	1.0	62	54.2	30.1	22	106.7	59.1	82	159.2	88.2	42	211.7	117.3
3	2.6	1.5	63	55.1	30.5	23	107.6	59.6	83	160.1	88.7	43	212.5	117.8
4	3.5	1.9	64	56.0	31.0	24	108.5	60.1	84	160.9	89.2	44	213.4	118.3
5	4.4	2.4	65	56.9	31.5	25	109.3	60.6	85	161.8	89.7	45	214.3	118.8
6	5.2	2.9	66	57.7	32.0	26	110.2	61.1	86	162.7	90.2	46	215.2	119.3
7	6.1	3.4	67	58.6	32.5	27	111.1	61.6	87	163.6	90.7	47	216.0	119.7
8	7.0	3.9	68	59.5	33.0	28	112.0	62.1	88	164.4	91.1	48	216.9	120.2
9	7.9	4.4	69	60.3	33.5	29	112.8	62.5	89	165.3	91.6	49	217.8	120.7
10	8.7	4.8	70	61.2	33.9	30	113.7	63.0	90	166.2	92.1	50	218.7	121.2
11	9.6	5.3	71	62.1	34.4	131	114.6	63.5	191	167.1	92.6	251	219.5	121.7
12	10.5	5.8	72	63.0	34.9	32	115.4	64.0	92	167.9	93.1	52	220.4	122.2
13	11.4	6.3	73	63.8	35.4	33	116.3	64.5	93	168.8	93.6	53	221.3	122.7
14	12.2	6.8	74	64.7	35.9	34	117.2	65.0	94	169.7	94.1	54	222.2	123.1
15	13.1	7.3	75	65.6	36.4	35	118.1	65.4	95	170.6	94.5	55	223.0	123.6
16	14.0	7.8	76	66.5	36.8	36	118.9	65.9	96	171.4	95.0	56	223.9	124.1
17	14.9	8.2	77	67.3	37.3	37	119.8	66.4	97	172.3	95.5	57	224.8	124.6
18	15.7	8.7	78	68.2	37.8	38	120.7	66.9	98	173.2	96.0	58	225.7	125.1
19	16.6	9.2	79	69.1	38.3	39	121.6	67.4	99	174.0	96.5	59	226.5	125.6
20	17.5	9.7	80	70.0	38.8	40	122.4	67.9	200	174.9	97.0	60	227.4	126.1
21	18.4	10.2	81	70.8	39.3	141	123.3	68.4	201	175.8	97.4	261	228.3	126.5
22	19.2	10.7	82	71.7	39.8	42	124.2	68.8	02	176.7	97.9	62	229.2	127.0
23	20.1	11.2	83	72.6	40.2	43	125.1	69.3	03	177.5	98.4	63	230.0	127.5
24	21.0	11.6	84	73.5	40.7	44	125.9	69.8	04	178.4	98.9	64	230.9	128.0
25	21.9	12.1	85	74.3	41.2	45	126.8	70.3	05	179.3	99.4	65	231.8	128.5
26	22.7	12.6	86	75.2	41.7	46	127.7	70.8	06	180.2	99.9	66	232.6	129.0
27	23.6	13.1	87	76.1	42.2	47	128.6	71.3	07	181.0	100.4	67	233.5	129.4
28	24.5	13.6	88	77.0	42.7	48	129.4	71.8	08	181.9	100.8	68	234.4	129.9
29	25.4	14.1	89	77.8	43.1	49	130.3	72.2	09	182.8	101.3	69	235.3	130.4
30	26.2	14.5	90	78.7	43.6	50	131.2	72.7	10	183.7	101.8	70	236.1	130.9
31	27.1	15.0	91	79.6	44.1	151	132.1	73.2	211	184.5	102.3	271	237.0	131.4
32	28.0	15.5	92	80.5	44.6	52	132.9	73.7	12	185.4	102.8	72	237.9	131.9
33	28.9	16.0	93	81.3	45.1	53	133.8	74.2	13	186.3	103.3	73	238.8	132.4
34	29.7	16.5	94	82.2	45.6	54	134.7	74.7	14	187.2	103.7	74	239.6	132.8
35	30.6	17.0	95	83.1	46.1	55	135.6	75.1	15	188.0	104.2	75	240.5	133.3
36	31.5	17.5	96	84.0	46.5	56	136.4	75.6	16	188.9	104.7	76	241.4	133.8
37	32.4	17.9	97	84.8	47.0	57	137.3	76.1	17	189.8	105.2	77	242.3	134.3
38	33.2	18.4	98	85.7	47.5	58	138.2	76.6	18	190.7	105.7	78	243.1	134.8
39	34.1	18.9	99	86.6	48.0	59	139.1	77.1	19	191.5	106.2	79	244.0	135.3
40	35.0	19.4	100	87.5	48.5	60	139.9	77.6	20	192.4	106.7	80	244.9	135.7
41	35.9	19.9	101	88.3	49.0	161	140.8	78.1	221	193.3	107.1	281	245.8	136.2
42	36.7	20.4	02	89.2	49.5	62	141.7	78.5	22	194.2	107.6	82	246.6	136.7
43	37.6	20.8	03	90.1	49.9	63	142.6	79.0	23	195.0	108.1	83	247.5	137.2
44	38.5	21.3	04	91.0	50.4	64	143.4	79.5	24	195.9	108.6	84	248.4	137.7
45	39.4	21.8	05	91.8	50.9	65	144.3	80.0	25	196.8	109.1	85	249.3	138.2
46	40.2	22.3	06	92.7	51.4	66	145.2	80.5	26	197.7	109.6	86	250.1	138.7
47	41.1	22.8	07	93.6	51.9	67	146.1	81.0	27	198.5	110.1	87	251.0	139.1
48	42.0	23.3	08	94.5	52.4	68	146.9	81.4	28	199.4	110.5	88	251.9	139.6
49	42.9	23.8	09	95.3	52.8	69	147.8	81.9	29	200.3	111.0	89	252.8	140.1
50	43.7	24.2	10	96.2	53.3	70	148.7	82.4	30	201.2	111.5	90	253.6	140.6
51	44.6	24.7	111	97.1	53.8	171	149.6	82.9	231	202.0	112.0	291	254.5	141.1
52	45.5	25.2	12	98.0	54.3	72	150.4	83.4	32	202.9	112.5	92	255.4	141.6
53	46.4	25.7	13	98.8	54.8	73	151.3	83.9	33	203.8	113.0	93	256.3	142.0
54	47.2	26.2	14	99.7	55.3	74	152.2	84.4	34	204.7	113.4	94	257.1	142.5
55	48.1	26.7	15	100.6	55.8	75	153.1	84.8	35	205.5	113.9	95	258.0	143.0
56	49.0	27.1	16	101.5	56.2	76	153.9	85.3	36	206.4	114.4	96	258.9	143.5
57	49.9	27.6	17	102.3	56.7	77	154.8	85.8	37	207.3	114.9	97	259.8	144.0
58	50.7	28.1	18	103.2	57.2	78	155.7	86.3	38	208.2	115.4	98	260.6	144.5
59	51.6	28.6	19	104.1	57.7	79	156.6	86.8	39	209.0	115.9	99	261.5	145.0
60	52.5	29.1	20	105.0	58.2	80	157.4	87.3	40	209.9	116.4	300	262.4	145.4
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

299° | 061°
241° | 119°

61°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

331° | 029°
209° | 151°

Traverse **29°** Table

331° | 029°
209° | 151°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	263.3	145.9	361	315.7	175.0	421	368.2	204.1	481	420.7	233.2	541	473.2	262.3
02	264.1	146.4	62	316.6	175.5	22	369.1	204.6	82	421.6	233.7	42	474.0	262.8
03	265.0	146.9	63	317.5	176.0	23	370.0	205.1	83	422.4	234.2	43	474.9	263.3
04	265.9	147.4	64	318.4	176.5	24	370.8	205.6	84	423.3	234.6	44	475.8	263.7
05	266.8	147.9	65	319.2	177.0	25	371.7	206.0	85	424.2	235.1	45	476.7	264.2
06	267.6	148.4	66	320.1	177.4	26	372.6	206.5	86	425.1	235.6	46	477.5	264.7
07	268.5	148.8	67	321.0	177.9	27	373.5	207.0	87	425.9	236.1	47	478.4	265.2
08	269.4	149.3	68	321.9	178.4	28	374.3	207.5	88	426.8	236.6	48	479.3	265.7
09	270.3	149.8	69	322.7	178.9	29	375.2	208.0	89	427.7	237.1	49	480.2	266.2
10	271.1	150.3	70	323.6	179.4	30	376.1	208.5	90	428.6	237.6	50	481.0	266.6
311	272.0	150.8	371	324.5	179.9	431	377.0	209.0	491	429.4	238.0	551	481.9	267.1
12	272.9	151.3	72	325.4	180.3	32	377.8	209.4	92	430.3	238.5	52	482.8	267.6
13	273.8	151.7	73	326.2	180.8	33	378.7	209.9	93	431.2	239.0	53	483.7	268.1
14	274.6	152.2	74	327.1	181.3	34	379.6	210.4	94	432.1	239.5	54	484.5	268.6
15	275.5	152.7	75	328.0	181.8	35	380.5	210.9	95	432.9	240.0	55	485.4	269.1
16	276.4	153.2	76	328.9	182.3	36	381.3	211.4	96	433.8	240.5	56	486.3	269.6
17	277.3	153.7	77	329.7	182.8	37	382.2	211.9	97	434.7	241.0	57	487.2	270.0
18	278.1	154.2	78	330.6	183.3	38	383.1	212.3	98	435.6	241.4	58	488.0	270.5
19	279.0	154.7	79	331.5	183.7	39	384.0	212.8	99	436.4	241.9	59	488.9	271.0
20	279.9	155.1	80	332.4	184.2	40	384.8	213.3	500	437.3	242.4	60	489.8	271.5
321	280.8	155.6	381	333.2	184.7	441	385.7	213.8	501	438.2	242.9	561	490.7	272.0
22	281.6	156.1	82	334.1	185.2	42	386.6	214.3	02	439.1	243.4	62	491.5	272.5
23	282.5	156.6	83	335.0	185.7	43	387.5	214.8	03	439.9	243.9	63	492.4	272.9
24	283.4	157.1	84	335.9	186.2	44	388.3	215.3	04	440.8	244.3	64	493.3	273.4
25	284.3	157.6	85	336.7	186.7	45	389.2	215.7	05	441.7	244.8	65	494.2	273.9
26	285.1	158.0	86	337.6	187.1	46	390.1	216.2	06	442.6	245.3	66	495.0	274.4
27	286.0	158.5	87	338.5	187.6	47	391.0	216.7	07	443.4	245.8	67	495.9	274.9
28	286.9	159.0	88	339.4	188.1	48	391.8	217.2	08	444.3	246.3	68	496.8	275.4
29	287.7	159.5	89	340.2	188.6	49	392.7	217.7	09	445.2	246.8	69	497.7	275.9
30	288.6	160.0	90	341.1	189.1	50	393.6	218.2	10	446.1	247.3	70	498.5	276.3
331	289.5	160.5	391	342.0	189.6	451	394.5	218.6	511	446.9	247.7	571	499.4	276.8
32	290.4	161.0	92	342.9	190.0	52	395.3	219.1	12	447.8	248.2	72	500.3	277.3
33	291.2	161.4	93	343.7	190.5	53	396.2	219.6	13	448.7	248.7	73	501.2	277.8
34	292.1	161.9	94	344.6	191.0	54	397.1	220.1	14	449.6	249.2	74	502.0	278.3
35	293.0	162.4	95	345.5	191.5	55	398.0	220.6	15	450.4	249.7	75	502.9	278.8
36	293.9	162.9	96	346.3	192.0	56	398.8	221.1	16	451.3	250.2	76	503.8	279.3
37	294.7	163.4	97	347.2	192.5	57	399.7	221.6	17	452.2	250.6	77	504.7	279.7
38	295.6	163.9	98	348.1	193.0	58	400.6	222.0	18	453.1	251.1	78	505.5	280.2
39	296.5	164.4	99	349.0	193.4	59	401.5	222.5	19	453.9	251.6	79	506.4	280.7
40	297.4	164.8	400	349.8	193.9	60	402.3	223.0	20	454.8	252.1	80	507.3	281.2
341	298.2	165.3	401	350.7	194.4	461	403.2	223.5	521	455.7	252.6	581	508.2	281.7
42	299.1	165.8	02	351.6	194.9	62	404.1	224.0	22	456.6	253.1	82	509.0	282.2
43	300.0	166.3	03	352.5	195.4	63	404.9	224.5	23	457.4	253.6	83	509.9	282.6
44	300.9	166.8	04	353.3	195.9	64	405.8	225.0	24	458.3	254.0	84	510.8	283.1
45	301.7	167.3	05	354.2	196.3	65	406.7	225.4	25	459.2	254.5	85	511.7	283.6
46	302.6	167.7	06	355.1	196.8	66	407.6	225.9	26	460.0	255.0	86	512.5	284.1
47	303.5	168.2	07	356.0	197.3	67	408.4	226.4	27	460.9	255.5	87	513.4	284.6
48	304.4	168.7	08	356.8	197.8	68	409.3	226.9	28	461.8	256.0	88	514.3	285.1
49	305.2	169.2	09	357.7	198.3	69	410.2	227.4	29	462.7	256.5	89	515.2	285.6
50	306.1	169.7	10	358.6	198.8	70	411.1	227.9	30	463.5	256.9	90	516.0	286.0
351	307.0	170.2	411	359.5	199.3	471	411.9	228.3	531	464.4	257.4	591	516.9	286.5
52	307.9	170.7	12	360.3	199.7	72	412.8	228.8	32	465.3	257.9	92	517.8	287.0
53	308.7	171.1	13	361.2	200.2	73	413.7	229.3	33	466.2	258.4	93	518.6	287.5
54	309.6	171.6	14	362.1	200.7	74	414.6	229.8	34	467.0	258.9	94	519.5	288.0
55	310.5	172.1	15	363.0	201.2	75	415.4	230.3	35	467.9	259.4	95	520.4	288.5
56	311.4	172.6	16	363.8	201.7	76	416.3	230.8	36	468.8	259.9	96	521.3	288.9
57	312.2	173.1	17	364.7	202.2	77	417.2	231.3	37	469.7	260.3	97	522.1	289.4
58	313.1	173.6	18	365.6	202.7	78	418.1	231.7	38	470.5	260.8	98	523.0	289.9
59	314.0	174.0	19	366.5	203.1	79	418.9	232.2	39	471.4	261.3	99	523.9	290.4
60	314.9	174.5	20	367.3	203.6	80	419.8	232.7	40	472.3	261.8	600	524.8	290.9
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

61°

299° | 061°
241° | 119°

TABLE 4

30° Traverse Table

330° / 210° | 030° / 150°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.9	0.5	61	52.8	30.5	121	104.8	60.5	181	156.8	90.5	241	208.7	120.5
2	1.7	1.0	62	53.7	31.0	22	105.7	61.0	82	157.6	91.0	42	209.6	121.0
3	2.6	1.5	63	54.6	31.5	23	106.5	61.5	83	158.5	91.5	43	210.4	121.5
4	3.5	2.0	64	55.4	32.0	24	107.4	62.0	84	159.3	92.0	44	211.3	122.0
5	4.3	2.5	65	56.3	32.5	25	108.3	62.5	85	160.2	92.5	45	212.2	122.5
6	5.2	3.0	66	57.2	33.0	26	109.1	63.0	86	161.1	93.0	46	213.0	123.0
7	6.1	3.5	67	58.0	33.5	27	110.0	63.5	87	161.9	93.5	47	213.9	123.5
8	6.9	4.0	68	58.9	34.0	28	110.9	64.0	88	162.8	94.0	48	214.8	124.0
9	7.8	4.5	69	59.8	34.5	29	111.7	64.5	89	163.7	94.5	49	215.6	124.5
10	8.7	5.0	70	60.6	35.0	30	112.6	65.0	90	164.5	95.0	50	216.5	125.0
11	9.5	5.5	71	61.5	35.5	131	113.4	65.5	191	165.4	95.5	251	217.4	125.5
12	10.4	6.0	72	62.4	36.0	32	114.3	66.0	92	166.3	96.0	52	218.2	126.0
13	11.3	6.5	73	63.2	36.5	33	115.2	66.5	93	167.1	96.5	53	219.1	126.5
14	12.1	7.0	74	64.1	37.0	34	116.0	67.0	94	168.0	97.0	54	220.0	127.0
15	13.0	7.5	75	65.0	37.5	35	116.9	67.5	95	168.9	97.5	55	220.8	127.5
16	13.9	8.0	76	65.8	38.0	36	117.8	68.0	96	169.7	98.0	56	221.7	128.0
17	14.7	8.5	77	66.7	38.5	37	118.6	68.5	97	170.6	98.5	57	222.6	128.5
18	15.6	9.0	78	67.5	39.0	38	119.5	69.0	98	171.5	99.0	58	223.4	129.0
19	16.5	9.5	79	68.4	39.5	39	120.4	69.5	99	172.3	99.5	59	224.3	129.5
20	17.3	10.0	80	69.3	40.0	40	121.2	70.0	200	173.2	100.0	60	225.2	130.0
21	18.2	10.5	81	70.1	40.5	141	122.1	70.5	201	174.1	100.5	261	226.0	130.5
22	19.1	11.0	82	71.0	41.0	42	123.0	71.0	02	174.9	101.0	62	226.9	131.0
23	19.9	11.5	83	71.9	41.5	43	123.8	71.5	03	175.8	101.5	63	227.8	131.5
24	20.8	12.0	84	72.7	42.0	44	124.7	72.0	04	176.7	102.0	64	228.6	132.0
25	21.7	12.5	85	73.6	42.5	45	125.6	72.5	05	177.5	102.5	65	229.5	132.5
26	22.5	13.0	86	74.5	43.0	46	126.4	73.0	06	178.4	103.0	66	230.4	133.0
27	23.4	13.5	87	75.3	43.5	47	127.3	73.5	07	179.3	103.5	67	231.2	133.5
28	24.2	14.0	88	76.2	44.0	48	128.2	74.0	08	180.1	104.0	68	232.1	134.0
29	25.1	14.5	89	77.1	44.5	49	129.0	74.5	09	181.0	104.5	69	233.0	134.5
30	26.0	15.0	90	77.9	45.0	50	129.9	75.0	10	181.9	105.0	70	233.8	135.0
31	26.8	15.5	91	78.8	45.5	151	130.8	75.5	211	182.7	105.5	271	234.7	135.5
32	27.7	16.0	92	79.7	46.0	52	131.6	76.0	12	183.6	106.0	72	235.6	136.0
33	28.6	16.5	93	80.5	46.5	53	132.5	76.5	13	184.5	106.5	73	236.4	136.5
34	29.4	17.0	94	81.4	47.0	54	133.4	77.0	14	185.3	107.0	74	237.3	137.0
35	30.3	17.5	95	82.3	47.5	55	134.2	77.5	15	186.2	107.5	75	238.2	137.5
36	31.2	18.0	96	83.1	48.0	56	135.1	78.0	16	187.1	108.0	76	239.0	138.0
37	32.0	18.5	97	84.0	48.5	57	136.0	78.5	17	187.9	108.5	77	239.9	138.5
38	32.9	19.0	98	84.9	49.0	58	136.8	79.0	18	188.8	109.0	78	240.8	139.0
39	33.8	19.5	99	85.7	49.5	59	137.7	79.5	19	189.7	109.5	79	241.6	139.5
40	34.6	20.0	100	86.6	50.0	60	138.6	80.0	20	190.5	110.0	80	242.5	140.0
41	35.5	20.5	101	87.5	50.5	161	139.4	80.5	221	191.4	110.5	281	243.4	140.5
42	36.4	21.0	02	88.3	51.0	62	140.3	81.0	22	192.3	111.0	82	244.2	141.0
43	37.2	21.5	03	89.2	51.5	63	141.2	81.5	23	193.1	111.5	83	245.1	141.5
44	38.1	22.0	04	90.1	52.0	64	142.0	82.0	24	194.0	112.0	84	246.0	142.0
45	39.0	22.5	05	90.9	52.5	65	142.9	82.5	25	194.9	112.5	85	246.8	142.5
46	39.8	23.0	06	91.8	53.0	66	143.8	83.0	26	195.7	113.0	86	247.7	143.0
47	40.7	23.5	07	92.7	53.5	67	144.6	83.5	27	196.6	113.5	87	248.5	143.5
48	41.6	24.0	08	93.5	54.0	68	145.5	84.0	28	197.5	114.0	88	249.4	144.0
49	42.4	24.5	09	94.4	54.5	69	146.4	84.5	29	198.3	114.5	89	250.3	144.5
50	43.3	25.0	10	95.3	55.0	70	147.2	85.0	30	199.2	115.0	90	251.1	145.0
51	44.2	25.5	111	96.1	55.5	171	148.1	85.5	231	200.1	115.5	291	252.0	145.5
52	45.0	26.0	12	97.0	56.0	72	149.0	86.0	32	200.9	116.0	92	252.9	146.0
53	45.9	26.5	13	97.9	56.5	73	149.8	86.5	33	201.8	116.5	93	253.7	146.5
54	46.8	27.0	14	98.7	57.0	74	150.7	87.0	34	202.6	117.0	94	254.6	147.0
55	47.6	27.5	15	99.6	57.5	75	151.6	87.5	35	203.5	117.5	95	255.5	147.5
56	48.5	28.0	16	100.5	58.0	76	152.4	88.0	36	204.4	118.0	96	256.3	148.0
57	49.4	28.5	17	101.3	58.5	77	153.3	88.5	37	205.2	118.5	97	257.2	148.5
58	50.2	29.0	18	102.2	59.0	78	154.2	89.0	38	206.1	119.0	98	258.1	149.0
59	51.1	29.5	19	103.1	59.5	79	155.0	89.5	39	207.0	119.5	99	258.9	149.5
60	52.0	30.0	20	103.9	60.0	80	155.9	90.0	40	207.8	120.0	300	259.8	150.0
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

300° / 240° | 060° / 120°

60°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

30° Traverse Table

330° / 210° | 030° / 150°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	260.7	150.5	361	312.6	180.5	421	364.6	210.5	481	416.6	240.5	541	468.5	270.5
02	261.5	151.0	62	313.5	181.0	22	365.5	211.0	82	417.4	241.0	42	469.4	271.0
03	262.4	151.5	63	314.4	181.5	23	366.3	211.5	83	418.3	241.5	43	470.3	271.5
04	263.3	152.0	64	315.2	182.0	24	367.2	212.0	84	419.2	242.0	44	471.1	272.0
05	264.1	152.5	65	316.1	182.5	25	368.1	212.5	85	420.0	242.5	45	472.0	272.5
06	265.0	153.0	66	317.0	183.0	26	368.9	213.0	86	420.9	243.0	46	472.8	273.0
07	265.9	153.5	67	317.8	183.5	27	369.8	213.5	87	421.8	243.5	47	473.7	273.5
08	266.7	154.0	68	318.7	184.0	28	370.7	214.0	88	422.6	244.0	48	474.6	274.0
09	267.6	154.5	69	319.6	184.5	29	371.5	214.5	89	423.5	244.5	49	475.4	274.5
10	268.5	155.0	70	320.4	185.0	30	372.4	215.0	90	424.4	245.0	50	476.3	275.0
311	269.3	155.5	371	321.3	185.5	431	373.3	215.5	491	425.2	245.5	551	477.2	275.5
12	270.2	156.0	72	322.2	186.0	32	374.1	216.0	92	426.1	246.0	52	478.0	276.0
13	271.1	156.5	73	323.0	186.5	33	375.0	216.5	93	427.0	246.5	53	478.9	276.5
14	271.9	157.0	74	323.9	187.0	34	375.9	217.0	94	427.8	247.0	54	479.8	277.0
15	272.8	157.5	75	324.8	187.5	35	376.7	217.5	95	428.7	247.5	55	480.6	277.5
16	273.7	158.0	76	325.6	188.0	36	377.6	218.0	96	429.5	248.0	56	481.5	278.0
17	274.5	158.5	77	326.5	188.5	37	378.5	218.5	97	430.4	248.5	57	482.4	278.5
18	275.4	159.0	78	327.4	189.0	38	379.3	219.0	98	431.3	249.0	58	483.2	279.0
19	276.3	159.5	79	328.2	189.5	39	380.2	219.5	99	432.1	249.5	59	484.1	279.5
20	277.1	160.0	80	329.1	190.0	40	381.1	220.0	500	433.0	250.0	60	485.0	280.0
321	278.0	160.5	381	330.0	190.5	441	381.9	220.5	501	433.9	250.5	561	485.8	280.5
22	278.9	161.0	82	330.8	191.0	42	382.8	221.0	02	434.7	251.0	62	486.7	281.0
23	279.7	161.5	83	331.7	191.5	43	383.6	221.5	03	435.6	251.5	63	487.6	281.5
24	280.6	162.0	84	332.6	192.0	44	384.5	222.0	04	436.5	252.0	64	488.4	282.0
25	281.5	162.5	85	333.4	192.5	45	385.4	222.5	05	437.3	252.5	65	489.3	282.5
26	282.3	163.0	86	334.3	193.0	46	386.2	223.0	06	438.2	253.0	66	490.2	283.0
27	283.2	163.5	87	335.2	193.5	47	387.1	223.5	07	439.1	253.5	67	491.0	283.5
28	284.1	164.0	88	336.0	194.0	48	388.0	224.0	08	439.9	254.0	68	491.9	284.0
29	284.9	164.5	89	336.9	194.5	49	388.8	224.5	09	440.8	254.5	69	492.8	284.5
30	285.8	165.0	90	337.7	195.0	50	389.7	225.0	10	441.7	255.0	70	493.6	285.0
331	286.7	165.5	391	338.6	195.5	451	390.6	225.5	511	442.5	255.5	571	494.5	285.5
32	287.5	166.0	92	339.5	196.0	52	391.4	226.0	12	443.4	256.0	72	495.4	286.0
33	288.4	166.5	93	340.3	196.5	53	392.3	226.5	13	444.3	256.5	73	496.2	286.5
34	289.3	167.0	94	341.2	197.0	54	393.2	227.0	14	445.1	257.0	74	497.1	287.0
35	290.1	167.5	95	342.1	197.5	55	394.0	227.5	15	446.0	257.5	75	498.0	287.5
36	291.0	168.0	96	342.9	198.0	56	394.9	228.0	16	446.9	258.0	76	498.8	288.0
37	291.9	168.5	97	343.8	198.5	57	395.8	228.5	17	447.7	258.5	77	499.7	288.5
38	292.7	169.0	98	344.7	199.0	58	396.6	229.0	18	448.6	259.0	78	500.6	289.0
39	293.6	169.5	99	345.5	199.5	59	397.5	229.5	19	449.5	259.5	79	501.4	289.5
40	294.4	170.0	400	346.4	200.0	60	398.4	230.0	20	450.3	260.0	80	502.3	290.0
341	295.3	170.5	401	347.3	200.5	461	399.2	230.5	521	451.2	260.5	581	503.2	290.5
42	296.2	171.0	02	348.1	201.0	62	400.1	231.0	22	452.1	261.0	82	504.0	291.0
43	297.0	171.5	03	349.0	201.5	63	401.0	231.5	23	452.9	261.5	83	504.9	291.5
44	297.9	172.0	04	349.9	202.0	64	401.8	232.0	24	453.8	262.0	84	505.8	292.0
45	298.8	172.5	05	350.7	202.5	65	402.7	232.5	25	454.7	262.5	85	506.6	292.5
46	299.6	173.0	06	351.6	203.0	66	403.6	233.0	26	455.5	263.0	86	507.5	293.0
47	300.5	173.5	07	352.5	203.5	67	404.4	233.5	27	456.4	263.5	87	508.4	293.5
48	301.4	174.0	08	353.3	204.0	68	405.3	234.0	28	457.3	264.0	88	509.2	294.0
49	302.2	174.5	09	354.2	204.5	69	406.2	234.5	29	458.1	264.5	89	510.1	294.5
50	303.1	175.0	10	355.1	205.0	70	407.0	235.0	30	459.0	265.0	90	511.0	295.0
351	304.0	175.5	411	355.9	205.5	471	407.9	235.5	531	459.9	265.5	591	511.8	295.5
52	304.8	176.0	12	356.8	206.0	72	408.8	236.0	32	460.7	266.0	92	512.7	296.0
53	305.7	176.5	13	357.7	206.5	73	409.6	236.5	33	461.6	266.5	93	513.6	296.5
54	306.6	177.0	14	358.5	207.0	74	410.5	237.0	34	462.5	267.0	94	514.4	297.0
55	307.4	177.5	15	359.4	207.5	75	411.4	237.5	35	463.3	267.5	95	515.3	297.5
56	308.3	178.0	16	360.3	208.0	76	412.2	238.0	36	464.2	268.0	96	516.2	298.0
57	309.2	178.5	17	361.1	208.5	77	413.1	238.5	37	465.1	268.5	97	517.0	298.5
58	310.0	179.0	18	362.0	209.0	78	414.0	239.0	38	465.9	269.0	98	517.9	299.0
59	310.9	179.5	19	362.9	209.5	79	414.8	239.5	39	466.8	269.5	99	518.7	299.5
60	311.8	180.0	20	363.7	210.0	80	415.7	240.0	40	467.7	270.0	600	519.6	300.0
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

300° / 240° | 060° / 120°

60°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

329° | 031°
211° | 149°

Traverse **31°** Table

329° | 031°
211° | 149°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.9	0.5	61	52.3	31.4	121	103.7	62.3	181	155.1	93.2	241	206.6	124.1
2	1.7	1.0	62	53.1	31.9	22	104.6	62.8	82	156.0	93.7	42	207.4	124.6
3	2.6	1.5	63	54.0	32.4	23	105.4	63.3	83	156.9	94.3	43	208.3	125.2
4	3.4	2.1	64	54.9	33.0	24	106.3	63.9	84	157.7	94.8	44	209.1	125.7
5	4.3	2.6	65	55.7	33.5	25	107.1	64.4	85	158.6	95.3	45	210.0	126.2
6	5.1	3.1	66	56.6	34.0	26	108.0	64.9	86	159.4	95.8	46	210.9	126.7
7	6.0	3.6	67	57.4	34.5	27	108.9	65.4	87	160.3	96.3	47	211.7	127.2
8	6.9	4.1	68	58.3	35.0	28	109.7	65.9	88	161.1	96.8	48	212.6	127.7
9	7.7	4.6	69	59.1	35.5	29	110.6	66.4	89	162.0	97.3	49	213.4	128.2
10	8.6	5.2	70	60.0	36.1	30	111.4	67.0	90	162.9	97.9	50	214.3	128.8
11	9.4	5.7	71	60.9	36.6	131	112.3	67.5	191	163.7	98.4	251	215.1	129.3
12	10.3	6.2	72	61.7	37.1	32	113.1	68.0	92	164.6	98.9	52	216.0	129.8
13	11.1	6.7	73	62.6	37.6	33	114.0	68.5	93	165.4	99.4	53	216.9	130.3
14	12.0	7.2	74	63.4	38.1	34	114.9	69.0	94	166.3	99.9	54	217.7	130.8
15	12.9	7.7	75	64.3	38.6	35	115.7	69.5	95	167.1	100.4	55	218.6	131.3
16	13.7	8.2	76	65.1	39.1	36	116.6	70.0	96	168.0	100.9	56	219.4	131.8
17	14.6	8.8	77	66.0	39.7	37	117.4	70.6	97	168.9	101.5	57	220.3	132.4
18	15.4	9.3	78	66.9	40.2	38	118.3	71.1	98	169.7	102.0	58	221.1	132.9
19	16.3	9.8	79	67.7	40.7	39	119.1	71.6	99	170.6	102.5	59	222.0	133.4
20	17.1	10.3	80	68.6	41.2	40	120.0	72.1	200	171.4	103.0	60	222.9	133.9
21	18.0	10.8	81	69.4	41.7	141	120.9	72.6	201	172.3	103.5	261	223.7	134.4
22	18.9	11.3	82	70.3	42.2	42	121.7	73.1	02	173.1	104.0	62	224.6	134.9
23	19.7	11.8	83	71.1	42.7	43	122.6	73.7	03	174.0	104.6	63	225.4	135.5
24	20.6	12.4	84	72.0	43.3	44	123.4	74.2	04	174.9	105.1	64	226.3	136.0
25	21.4	12.9	85	72.9	43.8	45	124.3	74.7	05	175.7	105.6	65	227.1	136.5
26	22.3	13.4	86	73.7	44.3	46	125.1	75.2	06	176.6	106.1	66	228.0	137.0
27	23.1	13.9	87	74.6	44.8	47	126.0	75.7	07	177.4	106.6	67	228.9	137.5
28	24.0	14.4	88	75.4	45.3	48	126.9	76.2	08	178.3	107.1	68	229.7	138.0
29	24.9	14.9	89	76.3	45.8	49	127.7	76.7	09	179.1	107.6	69	230.6	138.5
30	25.7	15.5	90	77.1	46.4	50	128.6	77.3	10	180.0	108.2	70	231.4	139.1
31	26.6	16.0	91	78.0	46.9	151	129.4	77.8	211	180.9	108.7	271	232.3	139.6
32	27.4	16.5	92	78.9	47.4	52	130.3	78.3	12	181.7	109.2	72	233.1	140.1
33	28.3	17.0	93	79.7	47.9	53	131.1	78.8	13	182.6	109.7	73	234.0	140.6
34	29.1	17.5	94	80.6	48.4	54	132.0	79.3	14	183.4	110.2	74	234.9	141.1
35	30.0	18.0	95	81.4	48.9	55	132.9	79.8	15	184.3	110.7	75	235.7	141.6
36	30.9	18.5	96	82.3	49.4	56	133.7	80.3	16	185.1	111.2	76	236.6	142.2
37	31.7	19.1	97	83.1	50.0	57	134.6	80.9	17	186.0	111.8	77	237.4	142.7
38	32.6	19.6	98	84.0	50.5	58	135.4	81.4	18	186.9	112.3	78	238.3	143.2
39	33.4	20.1	99	84.9	51.0	59	136.3	81.9	19	187.7	112.8	79	239.1	143.7
40	34.3	20.6	100	85.7	51.5	60	137.1	82.4	20	188.6	113.3	80	240.0	144.2
41	35.1	21.1	101	86.6	52.0	161	138.0	82.9	221	189.4	113.8	281	240.9	144.7
42	36.0	21.6	02	87.4	52.5	62	138.9	83.4	22	190.3	114.3	82	241.7	145.2
43	36.9	22.1	03	88.3	53.0	63	139.7	84.0	23	191.1	114.9	83	242.6	145.8
44	37.7	22.7	04	89.1	53.6	64	140.6	84.5	24	192.0	115.4	84	243.4	146.3
45	38.6	23.2	05	90.0	54.1	65	141.4	85.0	25	192.9	115.9	85	244.3	146.8
46	39.4	23.7	06	90.9	54.6	66	142.3	85.5	26	193.7	116.4	86	245.1	147.3
47	40.3	24.2	07	91.7	55.1	67	143.1	86.0	27	194.6	116.9	87	246.0	147.8
48	41.1	24.7	08	92.6	55.6	68	144.0	86.5	28	195.4	117.4	88	246.9	148.3
49	42.0	25.2	09	93.4	56.1	69	144.9	87.0	29	196.3	117.9	89	247.7	148.8
50	42.9	25.8	10	94.3	56.7	70	145.7	87.6	30	197.1	118.5	90	248.6	149.4
51	43.7	26.3	111	95.1	57.2	171	146.6	88.1	231	198.0	119.0	291	249.4	149.9
52	44.6	26.8	12	96.0	57.7	72	147.4	88.6	32	198.9	119.5	92	250.3	150.4
53	45.4	27.3	13	96.9	58.2	73	148.3	89.1	33	199.7	120.0	93	251.2	150.9
54	46.3	27.8	14	97.7	58.7	74	149.1	89.6	34	200.6	120.5	94	252.0	151.4
55	47.1	28.3	15	98.6	59.2	75	150.0	90.1	35	201.4	121.0	95	252.9	151.9
56	48.0	28.8	16	99.4	59.7	76	150.9	90.6	36	202.3	121.5	96	253.7	152.5
57	48.9	29.4	17	100.3	60.3	77	151.7	91.2	37	203.1	122.1	97	254.6	153.0
58	49.7	29.9	18	101.1	60.8	78	152.6	91.7	38	204.0	122.6	98	255.4	153.5
59	50.6	30.4	19	102.0	61.3	79	153.4	92.2	39	204.9	123.1	99	256.3	154.0
60	51.4	30.9	20	102.9	61.8	80	154.3	92.7	40	205.7	123.6	300	257.2	154.5
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

301° | 059°
239° | 121°

59°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

329° | 031°
211° | 149°

Traverse **31°** Table

329° | 031°
211° | 149°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	258.0	155.0	361	309.4	185.9	421	360.9	216.8	481	412.3	247.7	541	463.7	278.6
02	258.9	155.5	62	310.3	186.4	22	361.7	217.3	82	413.2	248.2	42	464.6	279.2
03	259.7	156.1	63	311.2	187.0	23	362.6	217.9	83	414.0	248.8	43	465.4	279.7
04	260.6	156.6	64	312.0	187.5	24	363.4	218.4	84	414.9	249.3	44	466.3	280.2
05	261.4	157.1	65	312.9	188.0	25	364.3	218.9	85	415.7	249.8	45	467.2	280.7
06	262.3	157.6	66	313.7	188.5	26	365.2	219.4	86	416.6	250.3	46	468.0	281.2
07	263.2	158.1	67	314.6	189.0	27	366.0	219.9	87	417.4	250.8	47	468.9	281.7
08	264.0	158.6	68	315.4	189.5	28	366.9	220.4	88	418.3	251.3	48	469.7	282.2
09	264.9	159.1	69	316.3	190.0	29	367.7	221.0	89	419.2	251.9	49	470.6	282.8
10	265.7	159.7	70	317.2	190.6	30	368.6	221.5	90	420.0	252.4	50	471.4	283.3
311	266.6	160.2	371	318.0	191.1	431	369.4	222.0	491	420.9	252.9	551	472.3	283.8
12	267.4	160.7	72	318.9	191.6	32	370.3	222.5	92	421.7	253.4	52	473.2	284.3
13	268.3	161.2	73	319.7	192.1	33	371.2	223.0	93	422.6	253.9	53	474.0	284.8
14	269.2	161.7	74	320.6	192.6	34	372.0	223.5	94	423.4	254.4	54	474.9	285.3
15	270.0	162.2	75	321.4	193.1	35	372.9	224.0	95	424.3	254.9	55	475.7	285.8
16	270.9	162.8	76	322.3	193.7	36	373.7	224.6	96	425.2	255.5	56	476.6	286.4
17	271.7	163.3	77	323.2	194.2	37	374.6	225.1	97	426.0	256.0	57	477.4	286.9
18	272.6	163.8	78	324.0	194.7	38	375.4	225.6	98	426.9	256.5	58	478.3	287.4
19	273.4	164.3	79	324.9	195.2	39	376.3	226.1	99	427.7	257.0	59	479.2	287.9
20	274.3	164.8	80	325.7	195.7	40	377.2	226.6	500	428.6	257.5	60	480.0	288.4
321	275.2	165.3	381	326.6	196.2	441	378.0	227.1	501	429.4	258.0	561	480.9	288.9
22	276.0	165.8	82	327.4	196.7	42	378.9	227.6	02	430.3	258.5	62	481.7	289.5
23	276.9	166.4	83	328.3	197.3	43	379.7	228.2	03	431.2	259.1	63	482.6	290.0
24	277.7	166.9	84	329.2	197.8	44	380.6	228.7	04	432.0	259.6	64	483.4	290.5
25	278.6	167.4	85	330.0	198.3	45	381.4	229.2	05	432.9	260.1	65	484.3	291.0
26	279.4	167.9	86	330.9	198.8	46	382.3	229.7	06	433.7	260.6	66	485.2	291.5
27	280.3	168.4	87	331.7	199.3	47	383.2	230.2	07	434.6	261.1	67	486.0	292.0
28	281.2	168.9	88	332.6	199.8	48	384.0	230.7	08	435.4	261.6	68	486.9	292.5
29	282.0	169.4	89	333.4	200.3	49	384.9	231.3	09	436.3	262.2	69	487.7	293.1
30	282.9	170.0	90	334.3	200.9	50	385.7	231.8	10	437.2	262.7	70	488.6	293.6
331	283.7	170.5	391	335.2	201.4	451	386.6	232.3	511	438.0	263.2	571	489.4	294.1
32	284.6	171.0	92	336.0	201.9	52	387.4	232.8	12	438.9	263.7	72	490.3	294.6
33	285.4	171.5	93	336.9	202.4	53	388.3	233.3	13	439.7	264.2	73	491.2	295.1
34	286.3	172.0	94	337.7	202.9	54	389.2	233.8	14	440.6	264.7	74	492.0	295.6
35	287.2	172.5	95	338.6	203.4	55	390.0	234.3	15	441.4	265.2	75	492.9	296.1
36	288.0	173.1	96	339.4	204.0	56	390.9	234.9	16	442.3	265.8	76	493.7	296.7
37	288.9	173.6	97	340.3	204.5	57	391.7	235.4	17	443.2	266.3	77	494.6	297.2
38	289.7	174.1	98	341.2	205.0	58	392.6	235.9	18	444.0	266.8	78	495.4	297.7
39	290.6	174.6	99	342.0	205.5	59	393.4	236.4	19	444.9	267.3	79	496.3	298.2
40	291.4	175.1	400	342.9	206.0	60	394.3	236.9	20	445.7	267.8	80	497.2	298.7
341	292.3	175.6	401	343.7	206.5	461	395.2	237.4	521	446.6	268.3	581	498.0	299.2
42	293.2	176.1	02	344.6	207.0	62	396.0	237.9	22	447.4	268.8	82	498.9	299.8
43	294.0	176.7	03	345.4	207.6	63	396.9	238.5	23	448.3	269.4	83	499.7	300.3
44	294.9	177.2	04	346.3	208.1	64	397.7	239.0	24	449.2	269.9	84	500.6	300.8
45	295.7	177.7	05	347.2	208.6	65	398.6	239.5	25	450.0	270.4	85	501.4	301.3
46	296.6	178.2	06	348.0	209.1	66	399.4	240.0	26	450.9	270.9	86	502.3	301.8
47	297.4	178.7	07	348.9	209.6	67	400.3	240.5	27	451.7	271.4	87	503.2	302.3
48	298.3	179.2	08	349.7	210.1	68	401.2	241.0	28	452.6	271.9	88	504.0	302.8
49	299.2	179.7	09	350.6	210.7	69	402.0	241.6	29	453.4	272.5	89	504.9	303.4
50	300.0	180.3	10	351.4	211.2	70	402.9	242.1	30	454.3	273.0	90	505.7	303.9
351	300.9	180.8	411	352.3	211.7	471	403.7	242.6	531	455.2	273.5	591	506.6	304.4
52	301.7	181.3	12	353.2	212.2	72	404.6	243.1	32	456.0	274.0	92	507.4	304.9
53	302.6	181.8	13	354.0	212.7	73	405.4	243.6	33	456.9	274.5	93	508.3	305.4
54	303.4	182.3	14	354.9	213.2	74	406.3	244.1	34	457.7	275.0	94	509.2	305.9
55	304.3	182.8	15	355.7	213.7	75	407.2	244.6	35	458.6	275.5	95	510.0	306.4
56	305.2	183.4	16	356.6	214.3	76	408.0	245.2	36	459.4	276.1	96	510.9	307.0
57	306.0	183.9	17	357.4	214.8	77	408.9	245.7	37	460.3	276.6	97	511.7	307.5
58	306.9	184.4	18	358.3	215.3	78	409.7	246.2	38	461.2	277.1	98	512.6	308.0
59	307.7	184.9	19	359.2	215.8	79	410.6	246.7	39	462.0	277.6	99	513.4	308.5
60	308.6	185.4	20	360.0	216.3	80	411.4	247.2	40	462.9	278.1	600	514.3	309.0
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

59°

301° | 059°
239° | 121°

TABLE 4

Traverse 32° Table

328° / 212° | 032° / 148°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.8	0.5	61	51.7	32.3	121	102.6	64.1	181	153.5	95.9	241	204.4	127.7
2	1.7	1.1	62	52.6	32.9	22	103.5	64.7	82	154.3	96.4	42	205.2	128.2
3	2.5	1.6	63	53.4	33.4	23	104.3	65.2	83	155.2	97.0	43	206.1	128.8
4	3.4	2.1	64	54.3	33.9	24	105.2	65.7	84	156.0	97.5	44	206.9	129.3
5	4.2	2.6	65	55.1	34.4	25	106.0	66.2	85	156.9	98.0	45	207.8	129.8
6	5.1	3.2	66	56.0	35.0	26	106.9	66.8	86	157.7	98.6	46	208.6	130.4
7	5.9	3.7	67	56.8	35.5	27	107.7	67.3	87	158.6	99.1	47	209.5	130.9
8	6.8	4.2	68	57.7	36.0	28	108.6	67.8	88	159.4	99.6	48	210.3	131.4
9	7.6	4.8	69	58.5	36.6	29	109.4	68.4	89	160.3	100.2	49	211.2	131.9
10	8.5	5.3	70	59.4	37.1	30	110.2	68.9	90	161.1	100.7	50	212.0	132.5
11	9.3	5.8	71	60.2	37.6	131	111.1	69.4	191	162.0	101.2	251	212.9	133.0
12	10.2	6.4	72	61.1	38.2	32	111.9	69.9	92	162.8	101.7	52	213.7	133.5
13	11.0	6.9	73	61.9	38.7	33	112.8	70.5	93	163.7	102.3	53	214.6	134.1
14	11.9	7.4	74	62.8	39.2	34	113.6	71.0	94	164.5	102.8	54	215.4	134.6
15	12.7	7.9	75	63.6	39.7	35	114.5	71.5	95	165.4	103.3	55	216.3	135.1
16	13.6	8.5	76	64.5	40.3	36	115.3	72.1	96	166.2	103.9	56	217.1	135.7
17	14.4	9.0	77	65.3	40.8	37	116.2	72.6	97	167.1	104.4	57	217.9	136.2
18	15.3	9.5	78	66.1	41.3	38	117.0	73.1	98	167.9	104.9	58	218.8	136.7
19	16.1	10.1	79	67.0	41.9	39	117.9	73.7	99	168.8	105.5	59	219.6	137.2
20	17.0	10.6	80	67.8	42.4	40	118.7	74.2	200	169.6	106.0	60	220.5	137.8
21	17.8	11.1	81	68.7	42.9	141	119.6	74.7	201	170.5	106.5	261	221.3	138.3
22	18.7	11.7	82	69.5	43.5	42	120.4	75.2	02	171.3	107.0	62	222.2	138.8
23	19.5	12.2	83	70.4	44.0	43	121.3	75.8	03	172.2	107.6	63	223.0	139.4
24	20.4	12.7	84	71.2	44.5	44	122.1	76.3	04	173.0	108.1	64	223.9	139.9
25	21.2	13.2	85	72.1	45.0	45	123.0	76.8	05	173.8	108.6	65	224.7	140.4
26	22.0	13.8	86	72.9	45.6	46	123.8	77.4	06	174.7	109.2	66	225.6	141.0
27	22.9	14.3	87	73.8	46.1	47	124.7	77.9	07	175.5	109.7	67	226.4	141.5
28	23.7	14.8	88	74.6	46.6	48	125.5	78.4	08	176.4	110.2	68	227.3	142.0
29	24.6	15.4	89	75.5	47.2	49	126.4	79.0	09	177.2	110.8	69	228.1	142.5
30	25.4	15.9	90	76.3	47.7	50	127.2	79.5	10	178.1	111.3	70	229.0	143.1
31	26.3	16.4	91	77.2	48.2	151	128.1	80.0	211	178.9	111.8	271	229.8	143.6
32	27.1	17.0	92	78.0	48.8	52	128.9	80.5	12	179.8	112.3	72	230.7	144.1
33	28.0	17.5	93	78.9	49.3	53	129.8	81.1	13	180.6	112.9	73	231.5	144.7
34	28.8	18.0	94	79.7	49.8	54	130.6	81.6	14	181.5	113.4	74	232.4	145.2
35	29.7	18.5	95	80.6	50.3	55	131.4	82.1	15	182.3	113.9	75	233.2	145.7
36	30.5	19.1	96	81.4	50.9	56	132.3	82.7	16	183.2	114.5	76	234.1	146.3
37	31.4	19.6	97	82.3	51.4	57	133.1	83.2	17	184.0	115.0	77	234.9	146.8
38	32.2	20.1	98	83.1	51.9	58	134.0	83.7	18	184.9	115.5	78	235.8	147.3
39	33.1	20.7	99	84.0	52.5	59	134.8	84.3	19	185.7	116.1	79	236.6	147.8
40	33.9	21.2	100	84.8	53.0	60	135.7	84.8	20	186.6	116.6	80	237.5	148.4
41	34.8	21.7	101	85.7	53.5	161	136.5	85.3	221	187.4	117.1	281	238.3	148.9
42	35.6	22.3	02	86.5	54.1	62	137.4	85.8	22	188.3	117.6	82	239.1	149.4
43	36.5	22.8	03	87.3	54.6	63	138.2	86.4	23	189.1	118.2	83	240.0	150.0
44	37.3	23.3	04	88.2	55.1	64	139.1	86.9	24	190.0	118.7	84	240.8	150.5
45	38.2	23.8	05	89.0	55.6	65	139.9	87.4	25	190.8	119.2	85	241.7	151.0
46	39.0	24.4	06	89.9	56.2	66	140.8	88.0	26	191.7	119.8	86	242.5	151.6
47	39.9	24.9	07	90.7	56.7	67	141.6	88.5	27	192.5	120.3	87	243.4	152.1
48	40.7	25.4	08	91.6	57.2	68	142.5	89.0	28	193.4	120.8	88	244.2	152.6
49	41.6	26.0	09	92.4	57.8	69	143.3	89.6	29	194.2	121.4	89	245.1	153.1
50	42.4	26.5	10	93.3	58.3	70	144.2	90.1	30	195.1	121.9	90	245.9	153.7
51	43.3	27.0	111	94.1	58.8	171	145.0	90.6	231	195.9	122.4	291	246.8	154.2
52	44.1	27.6	12	95.0	59.4	72	145.9	91.1	32	196.7	122.9	92	247.6	154.7
53	44.9	28.1	13	95.8	59.9	73	146.7	91.7	33	197.6	123.5	93	248.5	155.3
54	45.8	28.6	14	96.7	60.4	74	147.6	92.2	34	198.4	124.0	94	249.3	155.8
55	46.6	29.1	15	97.5	60.9	75	148.4	92.7	35	199.3	124.5	95	250.2	156.3
56	47.5	29.7	16	98.4	61.5	76	149.3	93.3	36	200.1	125.1	96	251.0	156.9
57	48.3	30.2	17	99.2	62.0	77	150.1	93.8	37	201.0	125.6	97	251.9	157.4
58	49.2	30.7	18	100.1	62.5	78	151.0	94.3	38	201.8	126.1	98	252.7	157.9
59	50.0	31.3	19	100.9	63.1	79	151.8	94.9	39	202.7	126.7	99	253.6	158.4
60	50.9	31.8	20	101.8	63.6	80	152.6	95.4	40	203.5	127.2	300	254.4	159.0
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

302° / 238° | 058° / 122°

58°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

Traverse 32° Table

328° / 212° | 032° / 148°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	255.3	159.5	361	306.1	191.3	421	357.0	223.1	481	407.9	254.9	541	458.8	286.7
02	256.1	160.0	62	307.0	191.8	22	357.9	223.6	82	408.8	255.4	42	459.6	287.2
03	257.0	160.6	63	307.8	192.4	23	358.7	224.2	83	409.6	256.0	43	460.5	287.7
04	257.8	161.1	64	308.7	192.9	24	359.6	224.7	84	410.5	256.5	44	461.3	288.3
05	258.7	161.6	65	309.5	193.4	25	360.4	225.2	85	411.3	257.0	45	462.2	288.8
06	259.5	162.2	66	310.4	194.0	26	361.3	225.7	86	412.2	257.5	46	463.0	289.3
07	260.4	162.7	67	311.2	194.5	27	362.1	226.3	87	413.0	258.1	47	463.9	289.9
08	261.2	163.2	68	312.1	195.0	28	363.0	226.8	88	413.8	258.6	48	464.7	290.4
09	262.0	163.7	69	312.9	195.5	29	363.8	227.3	89	414.7	259.1	49	465.6	290.9
10	262.9	164.3	70	313.8	196.1	30	364.7	227.9	90	415.5	259.7	50	466.4	291.5
311	263.7	164.8	371	314.6	196.6	431	365.5	228.4	491	416.4	260.2	551	467.3	292.0
12	264.6	165.3	72	315.5	197.1	32	366.4	228.9	92	417.2	260.7	52	468.1	292.5
13	265.4	165.9	73	316.3	197.7	33	367.2	229.5	93	418.1	261.3	53	469.0	293.0
14	266.3	166.4	74	317.2	198.2	34	368.1	230.0	94	418.9	261.8	54	469.8	293.6
15	267.1	166.9	75	318.0	198.7	35	368.9	230.5	95	419.8	262.3	55	470.7	294.1
16	268.0	167.5	76	318.9	199.2	36	369.7	231.0	96	420.6	262.8	56	471.5	294.6
17	268.8	168.0	77	319.7	199.8	37	370.6	231.6	97	421.5	263.4	57	472.4	295.2
18	269.7	168.5	78	320.6	200.3	38	371.4	232.1	98	422.3	263.9	58	473.2	295.7
19	270.5	169.0	79	321.4	200.8	39	372.3	232.6	99	423.2	264.4	59	474.1	296.2
20	271.4	169.6	80	322.3	201.4	40	373.1	233.2	500	424.0	265.0	60	474.9	296.8
321	272.2	170.1	381	323.1	201.9	441	374.0	233.7	501	424.9	265.5	561	475.8	297.3
22	273.1	170.6	82	324.0	202.4	42	374.8	234.2	02	425.7	266.0	62	476.6	297.8
23	273.9	171.2	83	324.8	203.0	43	375.7	234.8	03	426.6	266.5	63	477.5	298.3
24	274.8	171.7	84	325.7	203.5	44	376.5	235.3	04	427.4	267.1	64	478.3	298.9
25	275.6	172.2	85	326.5	204.0	45	377.4	235.8	05	428.3	267.6	65	479.1	299.4
26	276.5	172.8	86	327.3	204.5	46	378.2	236.3	06	429.1	268.1	66	480.0	299.9
27	277.3	173.3	87	328.2	205.1	47	379.1	236.9	07	430.0	268.7	67	480.8	300.5
28	278.2	173.8	88	329.0	205.6	48	379.9	237.4	08	430.8	269.2	68	481.7	301.0
29	279.0	174.3	89	329.9	206.1	49	380.8	237.9	09	431.7	269.7	69	482.5	301.5
30	279.9	174.9	90	330.7	206.7	50	381.6	238.5	10	432.5	270.3	70	483.4	302.1
331	280.7	175.4	391	331.6	207.2	451	382.5	239.0	511	433.4	270.8	571	484.2	302.6
32	281.6	175.9	92	332.4	207.7	52	383.3	239.5	12	434.2	271.3	72	485.1	303.1
33	282.4	176.5	93	333.3	208.3	53	384.2	240.1	13	435.0	271.8	73	485.9	303.6
34	283.2	177.0	94	334.1	208.8	54	385.0	240.6	14	435.9	272.4	74	486.8	304.2
35	284.1	177.5	95	335.0	209.3	55	385.9	241.1	15	436.7	272.9	75	487.6	304.7
36	284.9	178.1	96	335.8	209.8	56	386.7	241.6	16	437.6	273.4	76	488.5	305.2
37	285.8	178.6	97	336.7	210.4	57	387.6	242.2	17	438.4	274.0	77	489.3	305.8
38	286.6	179.1	98	337.5	210.9	58	388.4	242.7	18	439.3	274.5	78	490.2	306.3
39	287.5	179.6	99	338.4	211.4	59	389.3	243.2	19	440.1	275.0	79	491.0	306.8
40	288.3	180.2	400	339.2	212.0	60	390.1	243.8	20	441.0	275.6	80	491.9	307.4
341	289.2	180.7	401	340.1	212.5	461	391.0	244.3	521	441.8	276.1	581	492.7	307.9
42	290.0	181.2	02	340.9	213.0	62	391.8	244.8	22	442.7	276.6	82	493.6	308.4
43	290.9	181.8	03	341.8	213.6	63	392.6	245.4	23	443.5	277.1	83	494.4	308.9
44	291.7	182.3	04	342.6	214.1	64	393.5	245.9	24	444.4	277.7	84	495.3	309.5
45	292.6	182.8	05	343.5	214.6	65	394.3	246.4	25	445.2	278.2	85	496.1	310.0
46	293.4	183.4	06	344.3	215.1	66	395.2	246.9	26	446.1	278.7	86	497.0	310.5
47	294.3	183.9	07	345.2	215.7	67	396.0	247.5	27	446.9	279.3	87	497.8	311.1
48	295.1	184.4	08	346.0	216.2	68	396.9	248.0	28	447.8	279.8	88	498.7	311.6
49	296.0	184.9	09	346.9	216.7	69	397.7	248.5	29	448.6	280.3	89	499.5	312.1
50	296.8	185.5	10	347.7	217.3	70	398.6	249.1	30	449.5	280.9	90	500.3	312.7
351	297.7	186.0	411	348.5	217.8	471	399.4	249.6	531	450.3	281.4	591	501.2	313.2
52	298.5	186.5	12	349.4	218.3	72	400.3	250.1	32	451.2	281.9	92	502.0	313.7
53	299.4	187.1	13	350.2	218.9	73	401.1	250.7	33	452.0	282.4	93	502.9	314.2
54	300.2	187.6	14	351.1	219.4	74	402.0	251.2	34	452.9	283.0	94	503.7	314.8
55	301.1	188.1	15	351.9	219.9	75	402.8	251.7	35	453.7	283.5	95	504.6	315.3
56	301.9	188.7	16	352.8	220.4	76	403.7	252.2	36	454.6	284.0	96	505.4	315.8
57	302.8	189.2	17	353.6	221.0	77	404.5	252.8	37	455.4	284.6	97	506.3	316.4
58	303.6	189.7	18	354.5	221.5	78	405.4	253.3	38	456.2	285.1	98	507.1	316.9
59	304.4	190.2	19	355.3	222.0	79	406.2	253.8	39	457.1	285.6	99	508.0	317.4
60	305.3	190.8	20	356.2	222.6	80	407.1	254.4	40	457.9	286.2	600	508.8	318.0
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

302° / 238° | 058° / 122°

58°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

327° | 033°
213° | 147°

Traverse **33°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.8	0.5	61	51.2	33.2	121	101.5	65.9	181	151.8	98.6	241	202.1	131.3
2	1.7	1.1	62	52.0	33.8	22	102.3	66.4	82	152.6	99.1	42	203.0	131.8
3	2.5	1.6	63	52.8	34.3	23	103.2	67.0	83	153.5	99.7	43	203.8	132.3
4	3.4	2.2	64	53.7	34.9	24	104.0	67.5	84	154.3	100.2	44	204.6	132.9
5	4.2	2.7	65	54.5	35.4	25	104.8	68.1	85	155.2	100.8	45	205.5	133.4
6	5.0	3.3	66	55.4	35.9	26	105.7	68.6	86	156.0	101.3	46	206.3	134.0
7	5.9	3.8	67	56.2	36.5	27	106.5	69.2	87	156.8	101.8	47	207.2	134.5
8	6.7	4.4	68	57.0	37.0	28	107.3	69.7	88	157.7	102.4	48	208.0	135.1
9	7.5	4.9	69	57.9	37.6	29	108.2	70.3	89	158.5	102.9	49	208.8	135.6
10	8.4	5.4	70	58.7	38.1	30	109.0	70.8	90	159.3	103.5	50	209.7	136.2
11	9.2	6.0	71	59.5	38.7	131	109.9	71.3	191	160.2	104.0	251	210.5	136.7
12	10.1	6.5	72	60.4	39.2	32	110.7	71.9	92	161.0	104.6	52	211.3	137.2
13	10.9	7.1	73	61.2	39.8	33	111.5	72.4	93	161.9	105.1	53	212.2	137.8
14	11.7	7.6	74	62.1	40.3	34	112.4	73.0	94	162.7	105.7	54	213.0	138.3
15	12.6	8.2	75	62.9	40.8	35	113.2	73.5	95	163.5	106.2	55	213.9	138.9
16	13.4	8.7	76	63.7	41.4	36	114.1	74.1	96	164.4	106.7	56	214.7	139.4
17	14.3	9.3	77	64.6	41.9	37	114.9	74.6	97	165.2	107.3	57	215.5	140.0
18	15.1	9.8	78	65.4	42.5	38	115.7	75.2	98	166.1	107.8	58	216.4	140.5
19	15.9	10.3	79	66.3	43.0	39	116.6	75.7	99	166.9	108.4	59	217.2	141.1
20	16.8	10.9	80	67.1	43.6	40	117.4	76.2	200	167.7	108.9	60	218.1	141.6
21	17.6	11.4	81	67.9	44.1	141	118.3	76.8	201	168.6	109.5	261	218.9	142.2
22	18.5	12.0	82	68.8	44.7	42	119.1	77.3	02	169.4	110.0	62	219.7	142.7
23	19.3	12.5	83	69.6	45.2	43	119.9	77.9	03	170.3	110.6	63	220.6	143.2
24	20.1	13.1	84	70.4	45.7	44	120.8	78.4	04	171.1	111.1	64	221.4	143.8
25	21.0	13.6	85	71.3	46.3	45	121.6	79.0	05	171.9	111.7	65	222.2	144.3
26	21.8	14.2	86	72.1	46.8	46	122.4	79.5	06	172.8	112.2	66	223.1	144.9
27	22.6	14.7	87	73.0	47.4	47	123.3	80.1	07	173.6	112.7	67	223.9	145.4
28	23.5	15.2	88	73.8	47.9	48	124.1	80.6	08	174.4	113.3	68	224.8	146.0
29	24.3	15.8	89	74.6	48.5	49	125.0	81.2	09	175.3	113.8	69	225.6	146.5
30	25.2	16.3	90	75.5	49.0	50	125.8	81.7	10	176.1	114.4	70	226.4	147.1
31	26.0	16.9	91	76.3	49.6	151	126.6	82.2	211	177.0	114.9	271	227.3	147.6
32	26.8	17.4	92	77.2	50.1	52	127.5	82.8	12	177.8	115.5	72	228.1	148.1
33	27.7	18.0	93	78.0	50.7	53	128.3	83.3	13	178.6	116.0	73	229.0	148.7
34	28.5	18.5	94	78.8	51.2	54	129.2	83.9	14	179.5	116.6	74	229.8	149.2
35	29.4	19.1	95	79.7	51.7	55	130.0	84.4	15	180.3	117.1	75	230.6	149.8
36	30.2	19.6	96	80.5	52.3	56	130.8	85.0	16	181.2	117.6	76	231.5	150.3
37	31.0	20.2	97	81.4	52.8	57	131.7	85.5	17	182.0	118.2	77	232.3	150.9
38	31.9	20.7	98	82.2	53.4	58	132.5	86.1	18	182.8	118.7	78	233.2	151.4
39	32.7	21.2	99	83.0	53.9	59	133.3	86.6	19	183.7	119.3	79	234.0	152.0
40	33.5	21.8	100	83.9	54.5	60	134.2	87.1	20	184.5	119.8	80	234.8	152.5
41	34.4	22.3	101	84.7	55.0	161	135.0	87.7	221	185.3	120.4	281	235.7	153.0
42	35.2	22.9	02	85.5	55.6	62	135.9	88.2	22	186.2	120.9	82	236.5	153.6
43	36.1	23.4	03	86.4	56.1	63	136.7	88.8	23	187.0	121.5	83	237.3	154.1
44	36.9	24.0	04	87.2	56.6	64	137.5	89.3	24	187.9	122.0	84	238.2	154.7
45	37.7	24.5	05	88.1	57.2	65	138.4	89.9	25	188.7	122.5	85	239.0	155.2
46	38.6	25.1	06	88.9	57.7	66	139.2	90.4	26	189.5	123.1	86	239.9	155.8
47	39.4	25.6	07	89.7	58.3	67	140.1	91.0	27	190.4	123.6	87	240.7	156.3
48	40.3	26.1	08	90.6	58.8	68	140.9	91.5	28	191.2	124.2	88	241.5	156.9
49	41.1	26.7	09	91.4	59.4	69	141.7	92.0	29	192.1	124.7	89	242.4	157.4
50	41.9	27.2	10	92.3	59.9	70	142.6	92.6	30	192.9	125.3	90	243.2	157.9
51	42.8	27.8	111	93.1	60.5	171	143.4	93.1	231	193.7	125.8	291	244.1	158.5
52	43.6	28.3	12	93.9	61.0	72	144.3	93.7	32	194.6	126.4	92	244.9	159.0
53	44.4	28.9	13	94.8	61.5	73	145.1	94.2	33	195.4	126.9	93	245.7	159.6
54	45.3	29.4	14	95.6	62.1	74	145.9	94.8	34	196.2	127.4	94	246.6	160.1
55	46.1	30.0	15	96.4	62.6	75	146.8	95.3	35	197.1	128.0	95	247.4	160.7
56	47.0	30.5	16	97.3	63.2	76	147.6	95.9	36	197.9	128.5	96	248.2	161.2
57	47.8	31.0	17	98.1	63.7	77	148.4	96.4	37	198.8	129.1	97	249.1	161.8
58	48.6	31.6	18	99.0	64.3	78	149.3	96.9	38	199.6	129.6	98	249.9	162.3
59	49.5	32.1	19	99.8	64.8	79	150.1	97.5	39	200.4	130.2	99	250.8	162.8
60	50.3	32.7	20	100.6	65.4	80	151.0	98.0	40	201.3	130.7	300	251.6	163.4
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

303° | 057°
237° | 123°

57°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

327° | 033°
213° | 147°

Traverse **33°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	252.4	163.9	361	302.8	196.6	421	353.1	229.3	481	403.4	262.0	541	453.7	294.6
02	253.3	164.5	62	303.6	197.2	22	353.9	229.8	82	404.2	262.5	42	454.6	295.2
03	254.1	165.0	63	304.4	197.7	23	354.8	230.4	83	405.1	263.1	43	455.4	295.7
04	255.0	165.6	64	305.3	198.2	24	355.6	230.9	84	405.9	263.6	44	456.2	296.3
05	255.8	166.1	65	306.1	198.8	25	356.4	231.5	85	406.8	264.1	45	457.1	296.8
06	256.6	166.7	66	307.0	199.3	26	357.3	232.0	86	407.6	264.7	46	457.9	297.4
07	257.5	167.2	67	307.8	199.9	27	358.1	232.6	87	408.4	265.2	47	458.8	297.9
08	258.3	167.7	68	308.6	200.4	28	359.0	233.1	88	409.3	265.8	48	459.6	298.5
09	259.1	168.3	69	309.5	201.0	29	359.8	233.7	89	410.1	266.3	49	460.4	299.0
10	260.0	168.8	70	310.3	201.5	30	360.6	234.2	90	410.9	266.9	50	461.3	299.6
311	260.8	169.4	371	311.1	202.1	431	361.5	234.7	491	411.8	267.4	551	462.1	300.1
12	261.7	169.9	72	312.0	202.6	32	362.3	235.3	92	412.6	268.0	52	462.9	300.6
13	262.5	170.5	73	312.8	203.2	33	363.1	235.8	93	413.5	268.5	53	463.8	301.2
14	263.3	171.0	74	313.7	203.7	34	364.0	236.4	94	414.3	269.1	54	464.6	301.7
15	264.2	171.6	75	314.5	204.2	35	364.8	236.9	95	415.1	269.6	55	465.5	302.3
16	265.0	172.1	76	315.3	204.8	36	365.7	237.5	96	416.0	270.1	56	466.3	302.8
17	265.9	172.7	77	316.2	205.3	37	366.5	238.0	97	416.8	270.7	57	467.1	303.4
18	266.7	173.2	78	317.0	205.9	38	367.3	238.6	98	417.7	271.2	58	468.0	303.9
19	267.5	173.7	79	317.9	206.4	39	368.2	239.1	99	418.5	271.8	59	468.8	304.5
20	268.4	174.3	80	318.7	207.0	40	369.0	239.6	500	419.3	272.3	60	469.7	305.0
321	269.2	174.8	381	319.5	207.5	441	369.9	240.2	501	420.2	272.9	561	470.5	305.5
22	270.1	175.4	82	320.4	208.1	42	370.7	240.7	02	421.0	273.4	62	471.3	306.1
23	270.9	175.9	83	321.2	208.6	43	371.5	241.3	03	421.9	274.0	63	472.2	306.6
24	271.7	176.5	84	322.0	209.1	44	372.4	241.8	04	422.7	274.5	64	473.0	307.2
25	272.6	177.0	85	322.9	209.7	45	373.2	242.4	05	423.5	275.0	65	473.8	307.7
26	273.4	177.6	86	323.7	210.2	46	374.0	242.9	06	424.4	275.6	66	474.7	308.3
27	274.2	178.1	87	324.6	210.8	47	374.9	243.5	07	425.2	276.1	67	475.5	308.8
28	275.1	178.6	88	325.4	211.3	48	375.7	244.0	08	426.0	276.7	68	476.4	309.4
29	275.9	179.2	89	326.2	211.9	49	376.6	244.5	09	426.9	277.2	69	477.2	309.9
30	276.8	179.7	90	327.1	212.4	50	377.4	245.1	10	427.7	277.8	70	478.0	310.4
331	277.6	180.3	391	327.9	213.0	451	378.2	245.6	511	428.6	278.3	571	478.9	311.0
32	278.4	180.8	92	328.8	213.5	52	379.1	246.2	12	429.4	278.9	72	479.7	311.5
33	279.3	181.4	93	329.6	214.0	53	379.9	246.7	13	430.2	279.4	73	480.6	312.1
34	280.1	181.9	94	330.4	214.6	54	380.8	247.3	14	431.1	279.9	74	481.4	312.6
35	281.0	182.5	95	331.3	215.1	55	381.6	247.8	15	431.9	280.5	75	482.2	313.2
36	281.8	183.0	96	332.1	215.7	56	382.4	248.4	16	432.8	281.0	76	483.1	313.7
37	282.6	183.5	97	333.0	216.2	57	383.3	248.9	17	433.6	281.6	77	483.9	314.3
38	283.5	184.1	98	333.8	216.8	58	384.1	249.4	18	434.4	282.1	78	484.8	314.8
39	284.3	184.6	99	334.6	217.3	59	384.9	250.0	19	435.3	282.7	79	485.6	315.3
40	285.1	185.2	400	335.5	217.9	60	385.8	250.5	20	436.1	283.2	80	486.4	315.9
341	286.0	185.7	401	336.3	218.4	461	386.6	251.1	521	436.9	283.8	581	487.3	316.4
42	286.8	186.3	02	337.1	218.9	62	387.5	251.6	22	437.8	284.3	82	488.1	317.0
43	287.7	186.8	03	338.0	219.5	63	388.3	252.2	23	438.6	284.8	83	488.9	317.5
44	288.5	187.4	04	338.8	220.0	64	389.1	252.7	24	439.5	285.4	84	489.8	318.1
45	289.3	187.9	05	339.7	220.6	65	390.0	253.3	25	440.3	285.9	85	490.6	318.6
46	290.2	188.4	06	340.5	221.1	66	390.8	253.8	26	441.1	286.5	86	491.5	319.2
47	291.0	189.0	07	341.3	221.7	67	391.7	254.3	27	442.0	287.0	87	492.3	319.7
48	291.9	189.5	08	342.2	222.2	68	392.5	254.9	28	442.8	287.6	88	493.1	320.2
49	292.7	190.1	09	343.0	222.8	69	393.3	255.4	29	443.7	288.1	89	494.0	320.8
50	293.5	190.6	10	343.9	223.3	70	394.2	256.0	30	444.5	288.7	90	494.8	321.3
351	294.4	191.2	411	344.7	223.8	471	395.0	256.5	531	445.3	289.2	591	495.7	321.9
52	295.2	191.7	12	345.5	224.4	72	395.9	257.1	32	446.2	289.7	92	496.5	322.4
53	296.1	192.3	13	346.4	224.9	73	396.7	257.6	33	447.0	290.3	93	497.3	323.0
54	296.9	192.8	14	347.2	225.5	74	397.5	258.2	34	447.9	290.8	94	498.2	323.5
55	297.7	193.3	15	348.0	226.0	75	398.4	258.7	35	448.7	291.4	95	499.0	324.1
56	298.6	193.9	16	348.9	226.6	76	399.2	259.2	36	449.5	291.9	96	499.8	324.6
57	299.4	194.4	17	349.7	227.1	77	400.0	259.8	37	450.4	292.5	97	500.7	325.1
58	300.2	195.0	18	350.6	227.7	78	400.9	260.3	38	451.2	293.0	98	501.5	325.7
59	301.1	195.5	19	351.4	228.2	79	401.7	260.9	39	452.0	293.6	99	502.4	326.2
60	301.9	196.1	20	352.2	228.7	80	402.6	261.4	40	452.9	294.1	600	503.2	326.8
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

303° | 057°
237° | 123°

57°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

34° Traverse Table

326° / 214° | 034° / 146°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.8	0.6	61	50.6	34.1	121	100.3	67.7	181	150.1	101.2	241	199.8	134.8
2	1.7	1.1	62	51.4	34.7	22	101.1	68.2	82	150.9	101.8	42	200.6	135.3
3	2.5	1.7	63	52.2	35.2	23	102.0	68.8	83	151.7	102.3	43	201.5	135.9
4	3.3	2.2	64	53.1	35.8	24	102.8	69.3	84	152.5	102.9	44	202.3	136.4
5	4.1	2.8	65	53.9	36.3	25	103.6	69.9	85	153.4	103.5	45	203.1	137.0
6	5.0	3.4	66	54.7	36.9	26	104.5	70.5	86	154.2	104.0	46	203.9	137.6
7	5.8	3.9	67	55.5	37.5	27	105.3	71.0	87	155.0	104.6	47	204.8	138.1
8	6.6	4.5	68	56.4	38.0	28	106.1	71.6	88	155.9	105.1	48	205.6	138.7
9	7.5	5.0	69	57.2	38.6	29	106.9	72.1	89	156.7	105.7	49	206.4	139.2
10	8.3	5.6	70	58.0	39.1	30	107.8	72.7	90	157.5	106.2	50	207.3	139.8
11	9.1	6.2	71	58.9	39.7	131	108.6	73.3	191	158.3	106.8	251	208.1	140.4
12	9.9	6.7	72	59.7	40.3	32	109.4	73.8	92	159.2	107.4	52	208.9	140.9
13	10.8	7.3	73	60.5	40.8	33	110.3	74.4	93	160.0	107.9	53	209.7	141.5
14	11.6	7.8	74	61.3	41.4	34	111.1	74.9	94	160.8	108.5	54	210.6	142.0
15	12.4	8.4	75	62.2	41.9	35	111.9	75.5	95	161.7	109.0	55	211.4	142.6
16	13.3	8.9	76	63.0	42.5	36	112.7	76.1	96	162.5	109.6	56	212.2	143.2
17	14.1	9.5	77	63.8	43.1	37	113.6	76.6	97	163.3	110.2	57	213.1	143.7
18	14.9	10.1	78	64.7	43.6	38	114.4	77.2	98	164.1	110.7	58	213.9	144.3
19	15.8	10.6	79	65.5	44.2	39	115.2	77.7	99	165.0	111.3	59	214.7	144.8
20	16.6	11.2	80	66.3	44.7	40	116.1	78.3	200	165.8	111.8	60	215.5	145.4
21	17.4	11.7	81	67.2	45.3	141	116.9	78.8	201	166.6	112.4	261	216.4	145.9
22	18.2	12.3	82	68.0	45.9	42	117.7	79.4	02	167.5	113.0	62	217.2	146.5
23	19.1	12.9	83	68.8	46.4	43	118.6	80.0	03	168.3	113.5	63	218.0	147.1
24	19.9	13.4	84	69.6	47.0	44	119.4	80.5	04	169.1	114.1	64	218.9	147.6
25	20.7	14.0	85	70.5	47.5	45	120.2	81.1	05	170.0	114.6	65	219.7	148.2
26	21.6	14.5	86	71.3	48.1	46	121.0	81.6	06	170.8	115.2	66	220.5	148.7
27	22.4	15.1	87	72.1	48.6	47	121.9	82.2	07	171.6	115.8	67	221.4	149.3
28	23.2	15.7	88	73.0	49.2	48	122.7	82.8	08	172.4	116.3	68	222.2	149.9
29	24.0	16.2	89	73.8	49.8	49	123.5	83.3	09	173.3	116.9	69	223.0	150.4
30	24.9	16.8	90	74.6	50.3	50	124.4	83.9	10	174.1	117.4	70	223.8	151.0
31	25.7	17.3	91	75.4	50.9	151	125.2	84.4	211	174.9	118.0	271	224.7	151.5
32	26.5	17.9	92	76.3	51.4	52	126.0	85.0	12	175.8	118.5	72	225.5	152.1
33	27.4	18.5	93	77.1	52.0	53	126.8	85.6	13	176.6	119.1	73	226.3	152.7
34	28.2	19.0	94	77.9	52.6	54	127.7	86.1	14	177.4	119.7	74	227.2	153.2
35	29.0	19.6	95	78.8	53.1	55	128.5	86.7	15	178.2	120.2	75	228.0	153.8
36	29.8	20.1	96	79.6	53.7	56	129.3	87.2	16	179.1	120.8	76	228.8	154.3
37	30.7	20.7	97	80.4	54.2	57	130.2	87.8	17	179.9	121.3	77	229.6	154.9
38	31.5	21.2	98	81.2	54.8	58	131.0	88.4	18	180.7	121.9	78	230.5	155.5
39	32.3	21.8	99	82.1	55.4	59	131.8	88.9	19	181.6	122.5	79	231.3	156.0
40	33.2	22.4	100	82.9	55.9	60	132.6	89.5	20	182.4	123.0	80	232.1	156.6
41	34.0	22.9	101	83.7	56.5	161	133.5	90.0	221	183.2	123.6	281	233.0	157.1
42	34.8	23.5	02	84.6	57.0	62	134.3	90.6	22	184.0	124.1	82	233.8	157.7
43	35.6	24.0	03	85.4	57.6	63	135.1	91.1	23	184.9	124.7	83	234.6	158.3
44	36.5	24.6	04	86.2	58.2	64	136.0	91.7	24	185.7	125.3	84	235.4	158.8
45	37.3	25.2	05	87.0	58.7	65	136.8	92.3	25	186.5	125.8	85	236.3	159.4
46	38.1	25.7	06	87.9	59.3	66	137.6	92.8	26	187.4	126.4	86	237.1	159.9
47	39.0	26.3	07	88.7	59.8	67	138.4	93.4	27	188.2	126.9	87	237.9	160.5
48	39.8	26.8	08	89.5	60.4	68	139.3	93.9	28	189.0	127.5	88	238.8	161.0
49	40.6	27.4	09	90.4	61.0	69	140.1	94.5	29	189.8	128.1	89	239.6	161.6
50	41.5	28.0	10	91.2	61.5	70	140.9	95.1	30	190.7	128.6	90	240.4	162.2
51	42.3	28.5	111	92.0	62.1	171	141.8	95.6	231	191.5	129.2	291	241.2	162.7
52	43.1	29.1	12	92.9	62.6	72	142.6	96.2	32	192.3	129.7	92	242.1	163.3
53	43.9	29.6	13	93.7	63.2	73	143.4	96.7	33	193.2	130.3	93	242.9	163.8
54	44.8	30.2	14	94.5	63.7	74	144.3	97.3	34	194.0	130.9	94	243.7	164.4
55	45.6	30.8	15	95.3	64.3	75	145.1	97.9	35	194.8	131.4	95	244.6	165.0
56	46.4	31.3	16	96.2	64.9	76	145.9	98.4	36	195.7	132.0	96	245.4	165.5
57	47.3	31.9	17	97.0	65.4	77	146.7	99.0	37	196.5	132.5	97	246.2	166.1
58	48.1	32.4	18	97.8	66.0	78	147.6	99.5	38	197.3	133.1	98	247.1	166.6
59	48.9	33.0	19	98.7	66.5	79	148.4	100.1	39	198.1	133.6	99	247.9	167.2
60	49.7	33.6	20	99.5	67.1	80	149.2	100.7	40	199.0	134.2	300	248.7	167.8
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

304° / 236° | 056° / 124°

56°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

34° Traverse Table

326° / 214° | 034° / 146°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	249.5	168.3	361	299.3	201.9	421	349.0	235.4	481	398.8	269.0	541	448.5	302.5
02	250.4	168.9	62	300.1	202.4	22	349.9	236.0	82	399.6	269.5	42	449.3	303.1
03	251.2	169.4	63	300.9	203.0	23	350.7	236.5	83	400.4	270.1	43	450.2	303.6
04	252.0	170.0	64	301.8	203.5	24	351.5	237.1	84	401.3	270.6	44	451.0	304.2
05	252.9	170.6	65	302.6	204.1	25	352.3	237.7	85	402.1	271.2	45	451.8	304.8
06	253.7	171.1	66	303.4	204.7	26	353.2	238.2	86	402.9	271.8	46	452.7	305.3
07	254.5	171.7	67	304.3	205.2	27	354.0	238.8	87	403.7	272.3	47	453.5	305.9
08	255.3	172.2	68	305.1	205.8	28	354.8	239.3	88	404.6	272.9	48	454.3	306.4
09	256.2	172.8	69	305.9	206.3	29	355.7	239.9	89	405.4	273.4	49	455.1	307.0
10	257.0	173.3	70	306.7	206.9	30	356.5	240.5	90	406.2	274.0	50	456.0	307.6
311	257.8	173.9	371	307.6	207.5	431	357.3	241.0	491	407.1	274.6	551	456.8	308.1
12	258.7	174.5	72	308.4	208.0	32	358.1	241.6	92	407.9	275.1	52	457.6	308.7
13	259.5	175.0	73	309.2	208.6	33	359.0	242.1	93	408.7	275.7	53	458.5	309.2
14	260.3	175.6	74	310.1	209.1	34	359.8	242.7	94	409.5	276.2	54	459.3	309.8
15	261.1	176.1	75	310.9	209.7	35	360.6	243.2	95	410.4	276.8	55	460.1	310.4
16	262.0	176.7	76	311.7	210.3	36	361.5	243.8	96	411.2	277.4	56	460.9	310.9
17	262.8	177.3	77	312.5	210.8	37	362.3	244.4	97	412.0	277.9	57	461.8	311.5
18	263.6	177.8	78	313.4	211.4	38	363.1	244.9	98	412.9	278.5	58	462.6	312.0
19	264.5	178.4	79	314.2	211.9	39	363.9	245.5	99	413.7	279.0	59	463.4	312.6
20	265.3	178.9	80	315.0	212.5	40	364.8	246.0	500	414.5	279.6	60	464.3	313.1
321	266.1	179.5	381	315.9	213.1	441	365.6	246.6	501	415.3	280.2	561	465.1	313.7
22	267.0	180.1	82	316.7	213.6	42	366.4	247.2	02	416.2	280.7	62	465.9	314.3
23	267.8	180.6	83	317.5	214.2	43	367.3	247.7	03	417.0	281.3	63	466.7	314.8
24	268.6	181.2	84	318.4	214.7	44	368.1	248.3	04	417.8	281.8	64	467.6	315.4
25	269.4	181.7	85	319.2	215.3	45	368.9	248.8	05	418.7	282.4	65	468.4	315.9
26	270.3	182.3	86	320.0	215.8	46	369.8	249.4	06	419.5	283.0	66	469.2	316.5
27	271.1	182.9	87	320.8	216.4	47	370.6	250.0	07	420.3	283.5	67	470.1	317.1
28	271.9	183.4	88	321.7	217.0	48	371.4	250.5	08	421.2	284.1	68	470.9	317.6
29	272.8	184.0	89	322.5	217.5	49	372.2	251.1	09	422.0	284.6	69	471.7	318.2
30	273.6	184.5	90	323.3	218.1	50	373.1	251.6	10	422.8	285.2	70	472.6	318.7
331	274.4	185.1	391	324.2	218.6	451	373.9	252.2	511	423.6	285.7	571	473.4	319.3
32	275.2	185.7	92	325.0	219.2	52	374.7	252.8	12	424.5	286.3	72	474.2	319.9
33	276.1	186.2	93	325.8	219.8	53	375.6	253.3	13	425.3	286.9	73	475.0	320.4
34	276.9	186.8	94	326.6	220.3	54	376.4	253.9	14	426.1	287.4	74	475.9	321.0
35	277.7	187.3	95	327.5	220.9	55	377.2	254.4	15	427.0	288.0	75	476.7	321.5
36	278.6	187.9	96	328.3	221.4	56	378.0	255.0	16	427.8	288.5	76	477.5	322.1
37	279.4	188.4	97	329.1	222.0	57	378.9	255.6	17	428.6	289.1	77	478.4	322.7
38	280.2	189.0	98	330.0	222.6	58	379.7	256.1	18	429.4	289.7	78	479.2	323.2
39	281.0	189.6	99	330.8	223.1	59	380.5	256.7	19	430.3	290.2	79	480.0	323.8
40	281.9	190.1	400	331.6	223.7	60	381.4	257.2	20	431.1	290.8	80	480.8	324.3
341	282.7	190.7	401	332.4	224.2	461	382.2	257.8	521	431.9	291.3	581	481.7	324.9
42	283.5	191.2	02	333.3	224.8	62	383.0	258.3	22	432.8	291.9	82	482.5	325.5
43	284.4	191.8	03	334.1	225.4	63	383.8	258.9	23	433.6	292.5	83	483.3	326.0
44	285.2	192.4	04	334.9	225.9	64	384.7	259.5	24	434.4	293.0	84	484.2	326.6
45	286.0	192.9	05	335.8	226.5	65	385.5	260.0	25	435.2	293.6	85	485.0	327.1
46	286.8	193.5	06	336.6	227.0	66	386.3	260.6	26	436.1	294.1	86	485.8	327.7
47	287.7	194.0	07	337.4	227.6	67	387.2	261.1	27	436.9	294.7	87	486.6	328.2
48	288.5	194.6	08	338.2	228.2	68	388.0	261.7	28	437.7	295.3	88	487.5	328.8
49	289.3	195.2	09	339.1	228.7	69	388.8	262.3	29	438.6	295.8	89	488.3	329.4
50	290.2	195.7	10	339.9	229.3	70	389.6	262.8	30	439.4	296.4	90	489.1	329.9
351	291.0	196.3	411	340.7	229.8	471	390.5	263.4	531	440.2	296.9	591	490.0	330.5
52	291.8	196.8	12	341.6	230.4	72	391.3	263.9	32	441.0	297.5	92	490.8	331.0
53	292.7	197.4	13	342.4	230.9	73	392.1	264.5	33	441.9	298.0	93	491.6	331.6
54	293.5	198.0	14	343.2	231.5	74	393.0	265.1	34	442.7	298.6	94	492.4	332.2
55	294.3	198.5	15	344.1	232.1	75	393.8	265.6	35	443.5	299.2	95	493.3	332.7
56	295.1	199.1	16	344.9	232.6	76	394.6	266.2	36	444.4	299.7	96	494.1	333.3
57	296.0	199.6	17	345.7	233.2	77	395.5	266.7	37	445.2	300.3	97	494.9	333.8
58	296.8	200.2	18	346.5	233.7	78	396.3	267.3	38	446.0	300.8	98	495.8	334.4
59	297.6	200.8	19	347.4	234.3	79	397.1	267.9	39	446.9	301.4	99	496.6	335.0
60	298.5	201.3	20	348.2	234.9	80	397.9	268.4	40	447.7	302.0	600	497.4	335.5
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

304° / 236° | 056° / 124°

56°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

325° | 035°
215° | 145°

Traverse **35°** Table

325° | 035°
215° | 145°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.8	0.6	61	50.0	35.0	121	99.1	69.4	181	148.3	103.8	241	197.4	138.2
2	1.6	1.1	62	50.8	35.6	22	99.9	70.0	82	149.1	104.4	42	198.2	138.8
3	2.5	1.7	63	51.6	36.1	23	100.8	70.5	83	149.9	105.0	43	199.1	139.4
4	3.3	2.3	64	52.4	36.7	24	101.6	71.1	84	150.7	105.5	44	199.9	140.0
5	4.1	2.9	65	53.2	37.3	25	102.4	71.7	85	151.5	106.1	45	200.7	140.5
6	4.9	3.4	66	54.1	37.9	26	103.2	72.3	86	152.4	106.7	46	201.5	141.1
7	5.7	4.0	67	54.9	38.4	27	104.0	72.8	87	153.2	107.3	47	202.3	141.7
8	6.6	4.6	68	55.7	39.0	28	104.9	73.4	88	154.0	107.8	48	203.1	142.2
9	7.4	5.2	69	56.5	39.6	29	105.7	74.0	89	154.8	108.4	49	204.0	142.8
10	8.2	5.7	70	57.3	40.2	30	106.5	74.6	90	155.6	109.0	50	204.8	143.4
11	9.0	6.3	71	58.2	40.7	131	107.3	75.1	191	156.5	109.6	251	205.6	144.0
12	9.8	6.9	72	59.0	41.3	32	108.1	75.7	92	157.3	110.1	52	206.4	144.5
13	10.6	7.5	73	59.8	41.9	33	108.9	76.3	93	158.1	110.7	53	207.2	145.1
14	11.5	8.0	74	60.6	42.4	34	109.8	76.9	94	158.9	111.3	54	208.1	145.7
15	12.3	8.6	75	61.4	43.0	35	110.6	77.4	95	159.7	111.8	55	208.9	146.3
16	13.1	9.2	76	62.3	43.6	36	111.4	78.0	96	160.6	112.4	56	209.7	146.8
17	13.9	9.8	77	63.1	44.2	37	112.2	78.6	97	161.4	113.0	57	210.5	147.4
18	14.7	10.3	78	63.9	44.7	38	113.0	79.2	98	162.2	113.6	58	211.3	148.0
19	15.6	10.9	79	64.7	45.3	39	113.9	79.7	99	163.0	114.1	59	212.2	148.6
20	16.4	11.5	80	65.5	45.9	40	114.7	80.3	200	163.8	114.7	60	213.0	149.1
21	17.2	12.0	81	66.4	46.5	141	115.5	80.9	201	164.6	115.3	261	213.8	149.7
22	18.0	12.6	82	67.2	47.0	42	116.3	81.4	02	165.5	115.9	62	214.6	150.3
23	18.8	13.2	83	68.0	47.6	43	117.1	82.0	03	166.3	116.4	63	215.4	150.9
24	19.7	13.8	84	68.8	48.2	44	118.0	82.6	04	167.1	117.0	64	216.3	151.4
25	20.5	14.3	85	69.6	48.8	45	118.8	83.2	05	167.9	117.6	65	217.1	152.0
26	21.3	14.9	86	70.4	49.3	46	119.6	83.7	06	168.7	118.2	66	217.9	152.6
27	22.1	15.5	87	71.3	49.9	47	120.4	84.3	07	169.6	118.7	67	218.7	153.1
28	22.9	16.1	88	72.1	50.5	48	121.2	84.9	08	170.4	119.3	68	219.5	153.7
29	23.8	16.6	89	72.9	51.0	49	122.1	85.5	09	171.2	119.9	69	220.4	154.3
30	24.6	17.2	90	73.7	51.6	50	122.9	86.0	10	172.0	120.5	70	221.2	154.9
31	25.4	17.8	91	74.5	52.2	151	123.7	86.6	211	172.8	121.0	271	222.0	155.4
32	26.2	18.4	92	75.4	52.8	52	124.5	87.2	12	173.7	121.6	72	222.8	156.0
33	27.0	18.9	93	76.2	53.3	53	125.3	87.8	13	174.5	122.2	73	223.6	156.6
34	27.9	19.5	94	77.0	53.9	54	126.1	88.3	14	175.3	122.7	74	224.4	157.2
35	28.7	20.1	95	77.8	54.5	55	127.0	88.9	15	176.1	123.3	75	225.3	157.7
36	29.5	20.6	96	78.6	55.1	56	127.8	89.5	16	176.9	123.9	76	226.1	158.3
37	30.3	21.2	97	79.5	55.6	57	128.6	90.1	17	177.8	124.5	77	226.9	158.9
38	31.1	21.8	98	80.3	56.2	58	129.4	90.6	18	178.6	125.0	78	227.7	159.5
39	31.9	22.4	99	81.1	56.8	59	130.2	91.2	19	179.4	125.6	79	228.5	160.0
40	32.8	22.9	100	81.9	57.4	60	131.1	91.8	20	180.2	126.2	80	229.4	160.6
41	33.6	23.5	101	82.7	57.9	161	131.9	92.3	221	181.0	126.8	281	230.2	161.2
42	34.4	24.1	02	83.6	58.5	62	132.7	92.9	22	181.9	127.3	82	231.0	161.7
43	35.2	24.7	03	84.4	59.1	63	133.5	93.5	23	182.7	127.9	83	231.8	162.3
44	36.0	25.2	04	85.2	59.7	64	134.3	94.1	24	183.5	128.5	84	232.6	162.9
45	36.9	25.8	05	86.0	60.2	65	135.2	94.6	25	184.3	129.1	85	233.5	163.5
46	37.7	26.4	06	86.8	60.8	66	136.0	95.2	26	185.1	129.6	86	234.3	164.0
47	38.5	27.0	07	87.6	61.4	67	136.8	95.8	27	185.9	130.2	87	235.1	164.6
48	39.3	27.5	08	88.5	61.9	68	137.6	96.4	28	186.8	130.8	88	235.9	165.2
49	40.1	28.1	09	89.3	62.5	69	138.4	96.9	29	187.6	131.3	89	236.7	165.8
50	41.0	28.7	10	90.1	63.1	70	139.3	97.5	30	188.4	131.9	90	237.6	166.3
51	41.8	29.3	111	90.9	63.7	171	140.1	98.1	231	189.2	132.5	291	238.4	166.9
52	42.6	29.8	12	91.7	64.2	72	140.9	98.7	32	190.0	133.1	92	239.2	167.5
53	43.4	30.4	13	92.6	64.8	73	141.7	99.2	33	190.9	133.6	93	240.0	168.1
54	44.2	31.0	14	93.4	65.4	74	142.5	99.8	34	191.7	134.2	94	240.8	168.6
55	45.1	31.5	15	94.2	66.0	75	143.4	100.4	35	192.5	134.8	95	241.6	169.2
56	45.9	32.1	16	95.0	66.5	76	144.2	100.9	36	193.3	135.4	96	242.5	169.8
57	46.7	32.7	17	95.8	67.1	77	145.0	101.5	37	194.1	135.9	97	243.3	170.4
58	47.5	33.3	18	96.7	67.7	78	145.8	102.1	38	195.0	136.5	98	244.1	170.9
59	48.3	33.8	19	97.5	68.3	79	146.6	102.7	39	195.8	137.1	99	244.9	171.5
60	49.1	34.4	20	98.3	68.8	80	147.4	103.2	40	196.6	137.7	300	245.7	172.1
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

305° | 055°
235° | 125°

55°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

325° | 035°
215° | 145°

Traverse **35°** Table

325° | 035°
215° | 145°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	246.6	172.6	361	295.7	207.1	421	344.9	241.5	481	394.0	275.9	541	443.2	310.3
02	247.4	173.2	62	296.5	207.6	22	345.7	242.0	82	394.8	276.5	42	444.0	310.9
03	248.2	173.8	63	297.4	208.2	23	346.5	242.6	83	395.7	277.0	43	444.8	311.5
04	249.0	174.4	64	298.2	208.8	24	347.3	243.2	84	396.5	277.6	44	445.6	312.0
05	249.8	174.9	65	299.0	209.4	25	348.1	243.8	85	397.3	278.2	45	446.4	312.6
06	250.7	175.5	66	299.8	209.9	26	349.0	244.3	86	398.1	278.8	46	447.3	313.2
07	251.5	176.1	67	300.6	210.5	27	349.8	244.9	87	398.9	279.3	47	448.1	313.7
08	252.3	176.7	68	301.4	211.1	28	350.6	245.5	88	399.7	279.9	48	448.9	314.3
09	253.1	177.2	69	302.3	211.6	29	351.4	246.1	89	400.6	280.5	49	449.7	314.9
10	253.9	177.8	70	303.1	212.2	30	352.2	246.6	90	401.4	281.1	50	450.5	315.5
311	254.8	178.4	371	303.9	212.8	431	353.1	247.2	491	402.2	281.6	551	451.4	316.0
12	255.6	179.0	72	304.7	213.4	32	353.9	247.8	92	403.0	282.2	52	452.2	316.6
13	256.4	179.5	73	305.5	213.9	33	354.7	248.4	93	403.8	282.8	53	453.0	317.2
14	257.2	180.1	74	306.4	214.5	34	355.5	248.9	94	404.7	283.3	54	453.8	317.8
15	258.0	180.7	75	307.2	215.1	35	356.3	249.5	95	405.5	283.9	55	454.6	318.3
16	258.9	181.3	76	308.0	215.7	36	357.2	250.1	96	406.3	284.5	56	455.4	318.9
17	259.7	181.8	77	308.8	216.2	37	358.0	250.7	97	407.1	285.1	57	456.3	319.5
18	260.5	182.4	78	309.6	216.8	38	358.8	251.2	98	407.9	285.6	58	457.1	320.1
19	261.3	183.0	79	310.5	217.4	39	359.6	251.8	99	408.8	286.2	59	457.9	320.6
20	262.1	183.5	80	311.3	218.0	40	360.4	252.4	500	409.6	286.8	60	458.7	321.2
321	262.9	184.1	381	312.1	218.5	441	361.2	252.9	501	410.4	287.4	561	459.5	321.8
22	263.8	184.7	82	312.9	219.1	42	362.1	253.5	02	411.2	287.9	62	460.4	322.3
23	264.6	185.3	83	313.7	219.7	43	362.9	254.1	03	412.0	288.5	63	461.2	322.9
24	265.4	185.8	84	314.6	220.3	44	363.7	254.7	04	412.9	289.1	64	462.0	323.5
25	266.2	186.4	85	315.4	220.8	45	364.5	255.2	05	413.7	289.7	65	462.8	324.1
26	267.0	187.0	86	316.2	221.4	46	365.3	255.8	06	414.5	290.2	66	463.6	324.6
27	267.9	187.6	87	317.0	222.0	47	366.2	256.4	07	415.3	290.8	67	464.5	325.2
28	268.7	188.1	88	317.8	222.5	48	367.0	257.0	08	416.1	291.4	68	465.3	325.8
29	269.5	188.7	89	318.7	223.1	49	367.8	257.5	09	416.9	292.0	69	466.1	326.4
30	270.3	189.3	90	319.5	223.7	50	368.6	258.1	10	417.8	292.5	70	466.9	326.9
331	271.1	189.9	391	320.3	224.3	451	369.4	258.7	511	418.6	293.1	571	467.7	327.5
32	272.0	190.4	92	321.1	224.8	52	370.3	259.3	12	419.4	293.7	72	468.6	328.1
33	272.8	191.0	93	321.9	225.4	53	371.1	259.8	13	420.2	294.2	73	469.4	328.7
34	273.6	191.6	94	322.7	226.0	54	371.9	260.4	14	421.0	294.8	74	470.2	329.2
35	274.4	192.1	95	323.6	226.6	55	372.7	261.0	15	421.9	295.4	75	471.0	329.8
36	275.2	192.7	96	324.4	227.1	56	373.5	261.6	16	422.7	296.0	76	471.8	330.4
37	276.1	193.3	97	325.2	227.7	57	374.4	262.1	17	423.5	296.5	77	472.7	331.0
38	276.9	193.9	98	326.0	228.3	58	375.2	262.7	18	424.3	297.1	78	473.5	331.5
39	277.7	194.4	99	326.8	228.9	59	376.0	263.3	19	425.1	297.7	79	474.3	332.1
40	278.5	195.0	400	327.7	229.4	60	376.8	263.8	20	426.0	298.3	80	475.1	332.7
341	279.3	195.6	401	328.5	230.0	461	377.6	264.4	521	426.8	298.8	581	475.9	333.2
42	280.1	196.2	02	329.3	230.6	62	378.4	265.0	22	427.6	299.4	82	476.7	333.8
43	281.0	196.7	03	330.1	231.2	63	379.3	265.6	23	428.4	300.0	83	477.6	334.4
44	281.8	197.3	04	330.9	231.7	64	380.1	266.1	24	429.2	300.6	84	478.4	335.0
45	282.6	197.9	05	331.8	232.3	65	380.9	266.7	25	430.1	301.1	85	479.2	335.5
46	283.4	198.5	06	332.6	232.9	66	381.7	267.3	26	430.9	301.7	86	480.0	336.1
47	284.2	199.0	07	333.4	233.4	67	382.5	267.9	27	431.7	302.3	87	480.8	336.7
48	285.1	199.6	08	334.2	234.0	68	383.4	268.4	28	432.5	302.8	88	481.7	337.3
49	285.9	200.2	09	335.0	234.6	69	384.2	269.0	29	433.3	303.4	89	482.5	337.8
50	286.7	200.8	10	335.9	235.2	70	385.0	269.6	30	434.2	304.0	90	483.3	338.4
351	287.5	201.3	411	336.7	235.7	471	385.8	270.2	531	435.0	304.6	591	484.1	339.0
52	288.3	201.9	12	337.5	236.3	72	386.6	270.7	32	435.8	305.1	92	484.9	339.6
53	289.2	202.5	13	338.3	236.9	73	387.5	271.3	33	436.6	305.7	93	485.8	340.1
54	290.0	203.0	14	339.1	237.5	74	388.3	271.9	34	437.4	306.3	94	486.6	340.7
55	290.8	203.6	15	339.9	238.0	75	389.1	272.4	35	438.2	306.9	95	487.4	341.3
56	291.6	204.2	16	340.8	238.6	76	389.9	273.0	36	439.1	307.4	96	488.2	341.9
57	292.4	204.8	17	341.6	239.2	77	390.7	273.6	37	439.9	308.0	97	489.0	342.4
58	293.3	205.3	18	342.4	239.8	78	391.6	274.2	38	440.7	308.6	98	489.9	343.0
59	294.1	205.9	19	343.2	240.3	79	392.4	274.7	39	441.5	309.2	99	490.7	343.6
60	294.9	206.5	20	344.0	240.9	80	393.2	275.3	40	442.3	309.7	600	491.5	344.1
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

55°

305° | 055°
235° | 125°

TABLE 4

Traverse 36° Table

324° / 216°	036° / 144°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.8	0.6	61	49.4	35.9	121	97.9	71.1	181	146.4	106.4	241	195.0	141.7
2	1.6	1.2	62	50.2	36.4	22	98.7	71.7	82	147.2	107.0	42	195.8	142.2
3	2.4	1.8	63	51.0	37.0	23	99.5	72.3	83	148.1	107.6	43	196.6	142.8
4	3.2	2.4	64	51.8	37.6	24	100.3	72.9	84	148.9	108.2	44	197.4	143.4
5	4.0	2.9	65	52.6	38.2	25	101.1	73.5	85	149.7	108.7	45	198.2	144.0
6	4.9	3.5	66	53.4	38.8	26	101.9	74.1	86	150.5	109.3	46	199.0	144.6
7	5.7	4.1	67	54.2	39.4	27	102.7	74.6	87	151.3	109.9	47	199.8	145.2
8	6.5	4.7	68	55.0	40.0	28	103.6	75.2	88	152.1	110.5	48	200.6	145.8
9	7.3	5.3	69	55.8	40.6	29	104.4	75.8	89	152.9	111.1	49	201.4	146.4
10	8.1	5.9	70	56.6	41.1	30	105.2	76.4	90	153.7	111.7	50	202.3	146.9
11	8.9	6.5	71	57.4	41.7	131	106.0	77.0	191	154.5	112.3	251	203.1	147.5
12	9.7	7.1	72	58.2	42.3	32	106.8	77.6	92	155.3	112.9	52	203.9	148.1
13	10.5	7.6	73	59.1	42.9	33	107.6	78.2	93	156.1	113.4	53	204.7	148.7
14	11.3	8.2	74	59.9	43.5	34	108.4	78.8	94	156.9	114.0	54	205.5	149.3
15	12.1	8.8	75	60.7	44.1	35	109.2	79.4	95	157.8	114.6	55	206.3	149.9
16	12.9	9.4	76	61.5	44.7	36	110.0	79.9	96	158.6	115.2	56	207.1	150.5
17	13.8	10.0	77	62.3	45.3	37	110.8	80.5	97	159.4	115.8	57	207.9	151.1
18	14.6	10.6	78	63.1	45.8	38	111.6	81.1	98	160.2	116.4	58	208.7	151.6
19	15.4	11.2	79	63.9	46.4	39	112.5	81.7	99	161.0	117.0	59	209.5	152.2
20	16.2	11.8	80	64.7	47.0	40	113.3	82.3	200	161.8	117.6	60	210.3	152.8
21	17.0	12.3	81	65.5	47.6	141	114.1	82.9	201	162.6	118.1	261	211.2	153.4
22	17.8	12.9	82	66.3	48.2	42	114.9	83.5	02	163.4	118.7	62	212.0	154.0
23	18.6	13.5	83	67.1	48.8	43	115.7	84.1	03	164.2	119.3	63	212.8	154.6
24	19.4	14.1	84	68.0	49.4	44	116.5	84.6	04	165.0	119.9	64	213.6	155.2
25	20.2	14.7	85	68.8	50.0	45	117.3	85.2	05	165.8	120.5	65	214.4	155.8
26	21.0	15.3	86	69.6	50.5	46	118.1	85.8	06	166.7	121.1	66	215.2	156.4
27	21.8	15.9	87	70.4	51.1	47	118.9	86.4	07	167.5	121.7	67	216.0	156.9
28	22.7	16.5	88	71.2	51.7	48	119.7	87.0	08	168.3	122.3	68	216.8	157.5
29	23.5	17.0	89	72.0	52.3	49	120.5	87.6	09	169.1	122.8	69	217.6	158.1
30	24.3	17.6	90	72.8	52.9	50	121.4	88.2	10	169.9	123.4	70	218.4	158.7
31	25.1	18.2	91	73.6	53.5	151	122.2	88.8	211	170.7	124.0	271	219.2	159.3
32	25.9	18.8	92	74.4	54.1	52	123.0	89.3	12	171.5	124.6	72	220.1	159.9
33	26.7	19.4	93	75.2	54.7	53	123.8	89.9	13	172.3	125.2	73	220.9	160.5
34	27.5	20.0	94	76.0	55.3	54	124.6	90.5	14	173.1	125.8	74	221.7	161.1
35	28.3	20.6	95	76.9	55.8	55	125.4	91.1	15	173.9	126.4	75	222.5	161.6
36	29.1	21.2	96	77.7	56.4	56	126.2	91.7	16	174.7	127.0	76	223.3	162.2
37	29.9	21.7	97	78.5	57.0	57	127.0	92.3	17	175.6	127.5	77	224.1	162.8
38	30.7	22.3	98	79.3	57.6	58	127.8	92.9	18	176.4	128.1	78	224.9	163.4
39	31.6	22.9	99	80.1	58.2	59	128.6	93.5	19	177.2	128.7	79	225.7	164.0
40	32.4	23.5	100	80.9	58.8	60	129.4	94.0	20	178.0	129.3	80	226.5	164.6
41	33.2	24.1	101	81.7	59.4	161	130.3	94.6	221	178.8	129.9	281	227.3	165.2
42	34.0	24.7	02	82.5	60.0	62	131.1	95.2	22	179.6	130.5	82	228.1	165.8
43	34.8	25.3	03	83.3	60.5	63	131.9	95.8	23	180.4	131.1	83	229.0	166.3
44	35.6	25.9	04	84.1	61.1	64	132.7	96.4	24	181.2	131.7	84	229.8	166.9
45	36.4	26.5	05	84.9	61.7	65	133.5	97.0	25	182.0	132.3	85	230.6	167.5
46	37.2	27.0	06	85.8	62.3	66	134.3	97.6	26	182.8	132.8	86	231.4	168.1
47	38.0	27.6	07	86.6	62.9	67	135.1	98.2	27	183.6	133.4	87	232.2	168.7
48	38.8	28.2	08	87.4	63.5	68	135.9	98.7	28	184.5	134.0	88	233.0	169.3
49	39.6	28.8	09	88.2	64.1	69	136.7	99.3	29	185.3	134.6	89	233.8	169.9
50	40.5	29.4	10	89.0	64.7	70	137.5	99.9	30	186.1	135.2	90	234.6	170.5
51	41.3	30.0	111	89.8	65.2	171	138.3	100.5	231	186.9	135.8	291	235.4	171.0
52	42.1	30.6	12	90.6	65.8	72	139.2	101.1	32	187.7	136.4	92	236.2	171.6
53	42.9	31.2	13	91.4	66.4	73	140.0	101.7	33	188.5	137.0	93	237.0	172.2
54	43.7	31.7	14	92.2	67.0	74	140.8	102.3	34	189.3	137.5	94	237.9	172.8
55	44.5	32.3	15	93.0	67.6	75	141.6	102.9	35	190.1	138.1	95	238.7	173.4
56	45.3	32.9	16	93.8	68.2	76	142.4	103.5	36	190.9	138.7	96	239.5	174.0
57	46.1	33.5	17	94.7	68.8	77	143.2	104.0	37	191.7	139.3	97	240.3	174.6
58	46.9	34.1	18	95.5	69.4	78	144.0	104.6	38	192.5	139.9	98	241.1	175.2
59	47.7	34.7	19	96.3	69.9	79	144.8	105.2	39	193.4	140.5	99	241.9	175.7
60	48.5	35.3	20	97.1	70.5	80	145.6	105.8	40	194.2	141.1	300	242.7	176.3
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

306° / 234°	054° / 126°

54°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

Traverse 36° Table

324° / 216°	036° / 144°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	243.5	176.9	361	292.1	212.2	421	340.6	247.5	481	389.1	282.7	541	437.7	318.0
02	244.3	177.5	62	292.9	212.8	22	341.4	248.0	82	389.9	283.3	42	438.5	318.6
03	245.1	178.1	63	293.7	213.4	23	342.2	248.6	83	390.8	283.9	43	439.3	319.2
04	245.9	178.7	64	294.5	214.0	24	343.0	249.2	84	391.6	284.5	44	440.1	319.8
05	246.8	179.3	65	295.3	214.5	25	343.8	249.8	85	392.4	285.1	45	440.9	320.3
06	247.6	179.9	66	296.1	215.1	26	344.6	250.4	86	393.2	285.7	46	441.7	320.9
07	248.4	180.5	67	296.9	215.7	27	345.5	251.0	87	394.0	286.3	47	442.5	321.5
08	249.2	181.0	68	297.7	216.3	28	346.3	251.6	88	394.8	286.8	48	443.3	322.1
09	250.0	181.6	69	298.5	216.9	29	347.1	252.2	89	395.6	287.4	49	444.2	322.7
10	250.8	182.2	70	299.3	217.5	30	347.9	252.7	90	396.4	288.0	50	445.0	323.3
311	251.6	182.8	371	300.1	218.1	431	348.7	253.3	491	397.2	288.6	551	445.8	323.9
12	252.4	183.4	72	301.0	218.7	32	349.5	253.9	92	398.0	289.2	52	446.6	324.5
13	253.2	184.0	73	301.8	219.2	33	350.3	254.5	93	398.8	289.8	53	447.4	325.0
14	254.0	184.6	74	302.6	219.8	34	351.1	255.1	94	399.7	290.4	54	448.2	325.6
15	254.8	185.2	75	303.4	220.4	35	351.9	255.7	95	400.5	291.0	55	449.0	326.2
16	255.6	185.7	76	304.2	221.0	36	352.7	256.3	96	401.3	291.5	56	449.8	326.8
17	256.5	186.3	77	305.0	221.6	37	353.5	256.9	97	402.1	292.1	57	450.6	327.4
18	257.3	186.9	78	305.8	222.2	38	354.3	257.4	98	402.9	292.7	58	451.4	328.0
19	258.1	187.5	79	306.6	222.8	39	355.2	258.0	99	403.7	293.3	59	452.2	328.6
20	258.9	188.1	80	307.4	223.4	40	356.0	258.6	500	404.5	293.9	60	453.0	329.2
321	259.7	188.7	381	308.2	223.9	441	356.8	259.2	501	405.3	294.5	561	453.9	329.7
22	260.5	189.3	82	309.0	224.5	42	357.6	259.8	02	406.1	295.1	62	454.7	330.3
23	261.3	189.9	83	309.9	225.1	43	358.4	260.4	03	406.9	295.7	63	455.5	330.9
24	262.1	190.4	84	310.7	225.7	44	359.2	261.0	04	407.7	296.2	64	456.3	331.5
25	262.9	191.0	85	311.5	226.3	45	360.0	261.6	05	408.6	296.8	65	457.1	332.1
26	263.7	191.6	86	312.3	226.9	46	360.8	262.2	06	409.4	297.4	66	457.9	332.7
27	264.5	192.2	87	313.1	227.5	47	361.6	262.7	07	410.2	298.0	67	458.7	333.3
28	265.4	192.8	88	313.9	228.1	48	362.4	263.3	08	411.0	298.6	68	459.5	333.9
29	266.2	193.4	89	314.7	228.6	49	363.2	263.9	09	411.8	299.2	69	460.3	334.4
30	267.0	194.0	90	315.5	229.2	50	364.1	264.5	10	412.6	299.8	70	461.1	335.0
331	267.8	194.6	391	316.3	229.8	451	364.9	265.1	511	413.4	300.4	571	461.9	335.6
32	268.6	195.1	92	317.1	230.4	52	365.7	265.7	12	414.2	300.9	72	462.8	336.2
33	269.4	195.7	93	317.9	231.0	53	366.5	266.3	13	415.0	301.5	73	463.6	336.8
34	270.2	196.3	94	318.8	231.6	54	367.3	266.9	14	415.8	302.1	74	464.4	337.4
35	271.0	196.9	95	319.6	232.2	55	368.1	267.4	15	416.6	302.7	75	465.2	338.0
36	271.8	197.5	96	320.4	232.8	56	368.9	268.0	16	417.5	303.3	76	466.0	338.6
37	272.6	198.1	97	321.2	233.4	57	369.7	268.6	17	418.3	303.9	77	466.8	339.2
38	273.4	198.7	98	322.0	233.9	58	370.5	269.2	18	419.1	304.5	78	467.6	339.7
39	274.3	199.3	99	322.8	234.5	59	371.3	269.8	19	419.9	305.1	79	468.4	340.3
40	275.1	199.8	400	323.6	235.1	60	372.1	270.4	20	420.7	305.6	80	469.2	340.9
341	275.9	200.4	401	324.4	235.7	461	373.0	271.0	521	421.5	306.2	581	470.0	341.5
42	276.7	201.0	02	325.2	236.3	62	373.8	271.6	22	422.3	306.8	82	470.8	342.1
43	277.5	201.6	03	326.0	236.9	63	374.6	272.1	23	423.1	307.4	83	471.7	342.7
44	278.3	202.2	04	326.8	237.5	64	375.4	272.7	24	423.9	308.0	84	472.5	343.3
45	279.1	202.8	05	327.7	238.1	65	376.2	273.3	25	424.7	308.6	85	473.3	343.9
46	279.9	203.4	06	328.5	238.6	66	377.0	273.9	26	425.5	309.2	86	474.1	344.4
47	280.7	204.0	07	329.3	239.2	67	377.8	274.5	27	426.4	309.8	87	474.9	345.0
48	281.5	204.5	08	330.1	239.8	68	378.6	275.1	28	427.2	310.4	88	475.7	345.6
49	282.3	205.1	09	330.9	240.4	69	379.4	275.7	29	428.0	310.9	89	476.5	346.2
50	283.2	205.7	10	331.7	241.0	70	380.2	276.3	30	428.8	311.5	90	477.3	346.8
351	284.0	206.3	411	332.5	241.6	471	381.0	276.8	531	429.6	312.1	591	478.1	347.4
52	284.8	206.9	12	333.3	242.2	72	381.9	277.4	32	430.4	312.7	92	478.9	348.0
53	285.6	207.5	13	334.1	242.8	73	382.7	278.0	33	431.2	313.3	93	479.7	348.6
54	286.4	208.1	14	334.9	243.3	74	383.5	278.6	34	432.0	313.9	94	480.6	349.1
55	287.2	208.7	15	335.7	243.9	75	384.3	279.2	35	432.8	314.5	95	481.4	349.7
56	288.0	209.3	16	336.6	244.5	76	385.1	279.8	36	433.6	315.1	96	482.2	350.3
57	288.8	209.8	17	337.4	245.1	77	385.9	280.4	37	434.4	315.6	97	483.0	350.9
58	289.6	210.4	18	338.2	245.7	78	386.7	281.0	38	435.3	316.2	98	483.8	351.5
59	290.4	211.0	19	339.0	246.3	79	387.5	281.5	39	436.1	316.8	99	484.6	352.1
60	291.2	211.6	20	339.8	246.9	80	388.3	282.1	40	436.9	317.4	600	485.4	352.7
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

306° / 234°	054° / 126°

54°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

323° | 037°
217° | 143°

Traverse **37°** Table

323° | 037°
217° | 143°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.8	0.6	61	48.7	36.7	121	96.6	72.8	181	144.6	108.9	241	192.5	145.0
2	1.6	1.2	62	49.5	37.3	22	97.4	73.4	82	145.4	109.5	42	193.3	145.6
3	2.4	1.8	63	50.3	37.9	23	98.2	74.0	83	146.2	110.1	43	194.1	146.2
4	3.2	2.4	64	51.1	38.5	24	99.0	74.6	84	146.9	110.7	44	194.9	146.8
5	4.0	3.0	65	51.9	39.1	25	99.8	75.2	85	147.7	111.3	45	195.7	147.4
6	4.8	3.6	66	52.7	39.7	26	100.6	75.8	86	148.5	111.9	46	196.5	148.0
7	5.6	4.2	67	53.5	40.3	27	101.4	76.4	87	149.3	112.5	47	197.3	148.6
8	6.4	4.8	68	54.3	40.9	28	102.2	77.0	88	150.1	113.1	48	198.1	149.3
9	7.2	5.4	69	55.1	41.5	29	103.0	77.6	89	150.9	113.7	49	198.9	149.9
10	8.0	6.0	70	55.9	42.1	30	103.8	78.2	90	151.7	114.3	50	199.7	150.5
11	8.8	6.6	71	56.7	42.7	131	104.6	78.8	191	152.5	114.9	251	200.5	151.1
12	9.6	7.2	72	57.5	43.3	32	105.4	79.4	92	153.3	115.5	52	201.3	151.7
13	10.4	7.8	73	58.3	43.9	33	106.2	80.0	93	154.1	116.2	53	202.1	152.3
14	11.2	8.4	74	59.1	44.5	34	107.0	80.6	94	154.9	116.8	54	202.9	152.9
15	12.0	9.0	75	59.9	45.1	35	107.8	81.2	95	155.7	117.4	55	203.7	153.5
16	12.8	9.6	76	60.7	45.7	36	108.6	81.8	96	156.5	118.0	56	204.5	154.1
17	13.6	10.2	77	61.5	46.3	37	109.4	82.4	97	157.3	118.6	57	205.2	154.7
18	14.4	10.8	78	62.3	46.9	38	110.2	83.1	98	158.1	119.2	58	206.0	155.3
19	15.2	11.4	79	63.1	47.5	39	111.0	83.7	99	158.9	119.8	59	206.8	155.9
20	16.0	12.0	80	63.9	48.1	40	111.8	84.3	200	159.7	120.4	60	207.6	156.5
21	16.8	12.6	81	64.7	48.7	141	112.6	84.9	201	160.5	121.0	261	208.4	157.1
22	17.6	13.2	82	65.5	49.3	42	113.4	85.5	02	161.3	121.6	62	209.2	157.7
23	18.4	13.8	83	66.3	50.0	43	114.2	86.1	03	162.1	122.2	63	210.0	158.3
24	19.2	14.4	84	67.1	50.6	44	115.0	86.7	04	162.9	122.8	64	210.8	158.9
25	20.0	15.0	85	67.9	51.2	45	115.8	87.3	05	163.7	123.4	65	211.6	159.5
26	20.8	15.6	86	68.7	51.8	46	116.6	87.9	06	164.5	124.0	66	212.4	160.1
27	21.6	16.2	87	69.5	52.4	47	117.4	88.5	07	165.3	124.6	67	213.2	160.7
28	22.4	16.9	88	70.3	53.0	48	118.2	89.1	08	166.1	125.2	68	214.0	161.3
29	23.2	17.5	89	71.1	53.6	49	119.0	89.7	09	166.9	125.8	69	214.8	161.9
30	24.0	18.1	90	71.9	54.2	50	119.8	90.3	10	167.7	126.4	70	215.6	162.5
31	24.8	18.7	91	72.7	54.8	151	120.6	90.9	211	168.5	127.0	271	216.4	163.1
32	25.6	19.3	92	73.5	55.4	52	121.4	91.5	12	169.3	127.6	72	217.2	163.7
33	26.4	19.9	93	74.3	56.0	53	122.2	92.1	13	170.1	128.2	73	218.0	164.3
34	27.2	20.5	94	75.1	56.6	54	123.0	92.7	14	170.9	128.8	74	218.8	164.9
35	28.0	21.1	95	75.9	57.2	55	123.8	93.3	15	171.7	129.4	75	219.6	165.5
36	28.8	21.7	96	76.7	57.8	56	124.6	93.9	16	172.5	130.0	76	220.4	166.1
37	29.5	22.3	97	77.5	58.4	57	125.4	94.5	17	173.3	130.6	77	221.2	166.7
38	30.3	22.9	98	78.3	59.0	58	126.2	95.1	18	174.1	131.2	78	222.0	167.3
39	31.1	23.5	99	79.1	59.6	59	127.0	95.7	19	174.9	131.8	79	222.8	167.9
40	31.9	24.1	100	79.9	60.2	60	127.8	96.3	20	175.7	132.4	80	223.6	168.5
41	32.7	24.7	101	80.7	60.8	161	128.6	96.9	221	176.5	133.0	281	224.4	169.1
42	33.5	25.3	02	81.5	61.4	62	129.4	97.5	22	177.3	133.6	82	225.2	169.7
43	34.3	25.9	03	82.3	62.0	63	130.2	98.1	23	178.1	134.2	83	226.0	170.3
44	35.1	26.5	04	83.1	62.6	64	131.0	98.7	24	178.9	134.8	84	226.8	170.9
45	35.9	27.1	05	83.9	63.2	65	131.8	99.3	25	179.7	135.4	85	227.6	171.5
46	36.7	27.7	06	84.7	63.8	66	132.6	99.9	26	180.5	136.0	86	228.4	172.1
47	37.5	28.3	07	85.5	64.4	67	133.4	100.5	27	181.3	136.6	87	229.2	172.7
48	38.3	28.9	08	86.3	65.0	68	134.2	101.1	28	182.1	137.2	88	230.0	173.3
49	39.1	29.5	09	87.1	65.6	69	135.0	101.7	29	182.9	137.8	89	230.8	173.9
50	39.9	30.1	10	87.8	66.2	70	135.8	102.3	30	183.7	138.4	90	231.6	174.5
51	40.7	30.7	111	88.6	66.8	171	136.6	102.9	231	184.5	139.0	291	232.4	175.1
52	41.5	31.3	12	89.4	67.4	72	137.4	103.5	32	185.3	139.6	92	233.2	175.7
53	42.3	31.9	13	90.2	68.0	73	138.2	104.1	33	186.1	140.2	93	234.0	176.3
54	43.1	32.5	14	91.0	68.6	74	139.0	104.7	34	186.9	140.8	94	234.8	176.9
55	43.9	33.1	15	91.8	69.2	75	139.8	105.3	35	187.7	141.4	95	235.6	177.5
56	44.7	33.7	16	92.6	69.8	76	140.6	105.9	36	188.5	142.0	96	236.4	178.1
57	45.5	34.3	17	93.4	70.4	77	141.4	106.5	37	189.3	142.6	97	237.2	178.7
58	46.3	34.9	18	94.2	71.0	78	142.2	107.1	38	190.1	143.2	98	238.0	179.3
59	47.1	35.5	19	95.0	71.6	79	143.0	107.7	39	190.9	143.8	99	238.8	179.9
60	47.9	36.1	20	95.8	72.2	80	143.8	108.3	40	191.7	144.4	300	239.6	180.5
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

307° | 053°
233° | 127°

53°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

323° | 037°
217° | 143°

Traverse **37°** Table

323° | 037°
217° | 143°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	240.4	181.1	361	288.3	217.3	421	336.2	253.4	481	384.1	289.5	541	432.1	325.6
02	241.2	181.7	62	289.1	217.9	22	337.0	254.0	82	384.9	290.1	42	432.9	326.2
03	242.0	182.3	63	289.9	218.5	23	337.8	254.6	83	385.7	290.7	43	433.7	326.8
04	242.8	183.0	64	290.7	219.1	24	338.6	255.2	84	386.5	291.3	44	434.5	327.4
05	243.6	183.6	65	291.5	219.7	25	339.4	255.8	85	387.3	291.9	45	435.3	328.0
06	244.4	184.2	66	292.3	220.3	26	340.2	256.4	86	388.1	292.5	46	436.1	328.6
07	245.2	184.8	67	293.1	220.9	27	341.0	257.0	87	388.9	293.1	47	436.9	329.2
08	246.0	185.4	68	293.9	221.5	28	341.8	257.6	88	389.7	293.7	48	437.7	329.8
09	246.8	186.0	69	294.7	222.1	29	342.6	258.2	89	390.5	294.3	49	438.5	330.4
10	247.6	186.6	70	295.5	222.7	30	343.4	258.8	90	391.3	294.9	50	439.2	331.0
311	248.4	187.2	371	296.3	223.3	431	344.2	259.4	491	392.1	295.5	551	440.0	331.6
12	249.2	187.8	72	297.1	223.9	32	345.0	260.0	92	392.9	296.1	52	440.8	332.2
13	250.0	188.4	73	297.9	224.5	33	345.8	260.6	93	393.7	296.7	53	441.6	332.8
14	250.8	189.0	74	298.7	225.1	34	346.6	261.2	94	394.5	297.3	54	442.4	333.4
15	251.6	189.6	75	299.5	225.7	35	347.4	261.8	95	395.3	297.9	55	443.2	334.0
16	252.4	190.2	76	300.3	226.3	36	348.2	262.4	96	396.1	298.5	56	444.0	334.6
17	253.2	190.8	77	301.1	226.9	37	349.0	263.0	97	396.9	299.1	57	444.8	335.2
18	254.0	191.4	78	301.9	227.5	38	349.8	263.6	98	397.7	299.7	58	445.6	335.8
19	254.8	192.0	79	302.7	228.1	39	350.6	264.2	99	398.5	300.3	59	446.4	336.4
20	255.6	192.6	80	303.5	228.7	40	351.4	264.8	500	399.3	300.9	60	447.2	337.0
321	256.4	193.2	381	304.3	229.3	441	352.2	265.4	501	400.1	301.5	561	448.0	337.6
22	257.2	193.8	82	305.1	229.9	42	353.0	266.0	02	400.9	302.1	62	448.8	338.2
23	258.0	194.4	83	305.9	230.5	43	353.8	266.6	03	401.7	302.7	63	449.6	338.8
24	258.8	195.0	84	306.7	231.1	44	354.6	267.2	04	402.5	303.3	64	450.4	339.4
25	259.6	195.6	85	307.5	231.7	45	355.4	267.8	05	403.3	303.9	65	451.2	340.0
26	260.4	196.2	86	308.3	232.3	46	356.2	268.4	06	404.1	304.5	66	452.0	340.6
27	261.2	196.8	87	309.1	232.9	47	357.0	269.0	07	404.9	305.1	67	452.8	341.2
28	262.0	197.4	88	309.9	233.5	48	357.8	269.6	08	405.7	305.7	68	453.6	341.8
29	262.8	198.0	89	310.7	234.1	49	358.6	270.2	09	406.5	306.3	69	454.4	342.4
30	263.5	198.6	90	311.5	234.7	50	359.4	270.8	10	407.3	306.9	70	455.2	343.0
331	264.3	199.2	391	312.3	235.3	451	360.2	271.4	511	408.1	307.5	571	456.0	343.6
32	265.1	199.8	92	313.1	235.9	52	361.0	272.0	12	408.9	308.1	72	456.8	344.2
33	265.9	200.4	93	313.9	236.5	53	361.8	272.6	13	409.7	308.7	73	457.6	344.8
34	266.7	201.0	94	314.7	237.1	54	362.6	273.2	14	410.5	309.3	74	458.4	345.4
35	267.5	201.6	95	315.5	237.7	55	363.4	273.8	15	411.3	309.9	75	459.2	346.0
36	268.3	202.2	96	316.3	238.3	56	364.2	274.4	16	412.1	310.5	76	460.0	346.6
37	269.1	202.8	97	317.1	238.9	57	365.0	275.0	17	412.9	311.1	77	460.8	347.2
38	269.9	203.4	98	317.9	239.5	58	365.8	275.6	18	413.7	311.7	78	461.6	347.8
39	270.7	204.0	99	318.7	240.1	59	366.6	276.2	19	414.5	312.3	79	462.4	348.5
40	271.5	204.6	400	319.5	240.7	60	367.4	276.8	20	415.3	312.9	80	463.2	349.1
341	272.3	205.2	401	320.3	241.3	461	368.2	277.4	521	416.1	313.5	581	464.0	349.7
42	273.1	205.8	02	321.1	241.9	62	369.0	278.0	22	416.9	314.1	82	464.8	350.3
43	273.9	206.4	03	321.9	242.5	63	369.8	278.6	23	417.7	314.7	83	465.6	350.9
44	274.7	207.0	04	322.6	243.1	64	370.6	279.2	24	418.5	315.4	84	466.4	351.5
45	275.5	207.6	05	323.4	243.7	65	371.4	279.8	25	419.3	316.0	85	467.2	352.1
46	276.3	208.2	06	324.2	244.3	66	372.2	280.4	26	420.1	316.6	86	468.0	352.7
47	277.1	208.8	07	325.0	244.9	67	373.0	281.0	27	420.9	317.2	87	468.8	353.3
48	277.9	209.4	08	325.8	245.5	68	373.8	281.6	28	421.7	317.8	88	469.6	353.9
49	278.7	210.0	09	326.6	246.1	69	374.6	282.3	29	422.5	318.4	89	470.4	354.5
50	279.5	210.6	10	327.4	246.7	70	375.4	282.9	30	423.3	319.0	90	471.2	355.1
351	280.3	211.2	411	328.2	247.3	471	376.2	283.5	531	424.1	319.6	591	472.0	355.7
52	281.1	211.8	12	329.0	247.9	72	377.0	284.1	32	424.9	320.2	92	472.8	356.3
53	281.9	212.4	13	329.8	248.5	73	377.8	284.7	33	425.7	320.8	93	473.6	356.9
54	282.7	213.0	14	330.6	249.2	74	378.6	285.3	34	426.5	321.4	94	474.4	357.5
55	283.5	213.6	15	331.4	249.8	75	379.4	285.9	35	427.3	322.0	95	475.2	358.1
56	284.3	214.2	16	332.2	250.4	76	380.2	286.5	36	428.1	322.6	96	476.0	358.7
57	285.1	214.8	17	333.0	251.0	77	380.9	287.1	37	428.9	323.2	97	476.8	359.3
58	285.9	215.4	18	333.8	251.6	78	381.7	287.7	38	429.7	323.8	98	477.6	359.9
59	286.7	216.1	19	334.6	252.2	79	382.5	288.3	39	430.5	324.4	99	478.4	360.5
60	287.5	216.7	20	335.4	252.8	80	383.3	288.9	40	431.3	325.0	600	479.2	361.1
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

53°

307° | 053°
233° | 127°

TABLE 4

38° Traverse Table

322° / 218° | 038° / 142°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.8	0.6	61	48.1	37.6	121	95.3	74.5	181	142.6	111.4	241	189.9	148.4
2	1.6	1.2	62	48.9	38.2	22	96.1	75.1	82	143.4	112.1	42	190.7	149.0
3	2.4	1.8	63	49.6	38.8	23	96.9	75.7	83	144.2	112.7	43	191.5	149.6
4	3.2	2.5	64	50.4	39.4	24	97.7	76.3	84	145.0	113.3	44	192.3	150.2
5	3.9	3.1	65	51.2	40.0	25	98.5	77.0	85	145.8	113.9	45	193.1	150.8
6	4.7	3.7	66	52.0	40.6	26	99.3	77.6	86	146.6	114.5	46	193.9	151.5
7	5.5	4.3	67	52.8	41.2	27	100.1	78.2	87	147.4	115.1	47	194.6	152.1
8	6.3	4.9	68	53.6	41.9	28	100.9	78.8	88	148.1	115.7	48	195.4	152.7
9	7.1	5.5	69	54.4	42.5	29	101.7	79.4	89	148.9	116.4	49	196.2	153.3
10	7.9	6.2	70	55.2	43.1	30	102.4	80.0	90	149.7	117.0	50	197.0	153.9
11	8.7	6.8	71	55.9	43.7	131	103.2	80.7	191	150.5	117.6	251	197.8	154.5
12	9.5	7.4	72	56.7	44.3	32	104.0	81.3	92	151.3	118.2	52	198.6	155.1
13	10.2	8.0	73	57.5	44.9	33	104.8	81.9	93	152.1	118.8	53	199.4	155.8
14	11.0	8.6	74	58.3	45.6	34	105.6	82.5	94	152.9	119.4	54	200.2	156.4
15	11.8	9.2	75	59.1	46.2	35	106.4	83.1	95	153.7	120.1	55	200.9	157.0
16	12.6	9.9	76	59.9	46.8	36	107.2	83.7	96	154.5	120.7	56	201.7	157.6
17	13.4	10.5	77	60.7	47.4	37	108.0	84.3	97	155.2	121.3	57	202.5	158.2
18	14.2	11.1	78	61.5	48.0	38	108.7	85.0	98	156.0	121.9	58	203.3	158.8
19	15.0	11.7	79	62.3	48.6	39	109.5	85.6	99	156.8	122.5	59	204.1	159.5
20	15.8	12.3	80	63.0	49.3	40	110.3	86.2	200	157.6	123.1	60	204.9	160.1
21	16.5	12.9	81	63.8	49.9	141	111.1	86.8	201	158.4	123.7	261	205.7	160.7
22	17.3	13.5	82	64.6	50.5	42	111.9	87.4	02	159.2	124.4	62	206.5	161.3
23	18.1	14.2	83	65.4	51.1	43	112.7	88.0	03	160.0	125.0	63	207.2	161.9
24	18.9	14.8	84	66.2	51.7	44	113.5	88.7	04	160.8	125.6	64	208.0	162.5
25	19.7	15.4	85	67.0	52.3	45	114.3	89.3	05	161.5	126.2	65	208.8	163.2
26	20.5	16.0	86	67.8	52.9	46	115.0	89.9	06	162.3	126.8	66	209.6	163.8
27	21.3	16.6	87	68.6	53.6	47	115.8	90.5	07	163.1	127.4	67	210.4	164.4
28	22.1	17.2	88	69.3	54.2	48	116.6	91.1	08	163.9	128.1	68	211.2	165.0
29	22.9	17.9	89	70.1	54.8	49	117.4	91.7	09	164.7	128.7	69	212.0	165.6
30	23.6	18.5	90	70.9	55.4	50	118.2	92.3	10	165.5	129.3	70	212.8	166.2
31	24.4	19.1	91	71.7	56.0	151	119.0	93.0	211	166.3	129.9	271	213.6	166.8
32	25.2	19.7	92	72.5	56.6	52	119.8	93.6	12	167.1	130.5	72	214.3	167.5
33	26.0	20.3	93	73.3	57.3	53	120.6	94.2	13	167.8	131.1	73	215.1	168.1
34	26.8	20.9	94	74.1	57.9	54	121.4	94.8	14	168.6	131.8	74	215.9	168.7
35	27.6	21.5	95	74.9	58.5	55	122.1	95.4	15	169.4	132.4	75	216.7	169.3
36	28.4	22.2	96	75.6	59.1	56	122.9	96.0	16	170.2	133.0	76	217.5	169.9
37	29.2	22.8	97	76.4	59.7	57	123.7	96.7	17	171.0	133.6	77	218.3	170.5
38	29.9	23.4	98	77.2	60.3	58	124.5	97.3	18	171.8	134.2	78	219.1	171.2
39	30.7	24.0	99	78.0	61.0	59	125.3	97.9	19	172.6	134.8	79	219.9	171.8
40	31.5	24.6	100	78.8	61.6	60	126.1	98.5	20	173.4	135.4	80	220.6	172.4
41	32.3	25.2	101	79.6	62.2	161	126.9	99.1	221	174.2	136.1	281	221.4	173.0
42	33.1	25.9	02	80.4	62.8	62	127.7	99.7	22	174.9	136.7	82	222.2	173.6
43	33.9	26.5	03	81.2	63.4	63	128.4	100.4	23	175.7	137.3	83	223.0	174.2
44	34.7	27.1	04	82.0	64.0	64	129.2	101.0	24	176.5	137.9	84	223.8	174.8
45	35.5	27.7	05	82.7	64.6	65	130.0	101.6	25	177.3	138.5	85	224.6	175.5
46	36.2	28.3	06	83.5	65.3	66	130.8	102.2	26	178.1	139.1	86	225.4	176.1
47	37.0	28.9	07	84.3	65.9	67	131.6	102.8	27	178.9	139.8	87	226.2	176.7
48	37.8	29.6	08	85.1	66.5	68	132.4	103.4	28	179.7	140.4	88	226.9	177.3
49	38.6	30.2	09	85.9	67.1	69	133.2	104.0	29	180.5	141.0	89	227.7	177.9
50	39.4	30.8	10	86.7	67.7	70	134.0	104.7	30	181.2	141.6	90	228.5	178.5
51	40.2	31.4	111	87.5	68.3	171	134.7	105.3	231	182.0	142.2	291	229.3	179.2
52	41.0	32.0	12	88.3	69.0	72	135.5	105.9	32	182.8	142.8	92	230.1	179.8
53	41.8	32.6	13	89.0	69.6	73	136.3	106.5	33	183.6	143.4	93	230.9	180.4
54	42.6	33.2	14	89.8	70.2	74	137.1	107.1	34	184.4	144.1	94	231.7	181.0
55	43.3	33.9	15	90.6	70.8	75	137.9	107.7	35	185.2	144.7	95	232.5	181.6
56	44.1	34.5	16	91.4	71.4	76	138.7	108.4	36	186.0	145.3	96	233.3	182.2
57	44.9	35.1	17	92.2	72.0	77	139.5	109.0	37	186.8	145.9	97	234.0	182.9
58	45.7	35.7	18	93.0	72.6	78	140.3	109.6	38	187.5	146.5	98	234.8	183.5
59	46.5	36.3	19	93.8	73.3	79	141.1	110.2	39	188.3	147.1	99	235.6	184.1
60	47.3	36.9	20	94.6	73.9	80	141.8	110.8	40	189.1	147.8	300	236.4	184.7
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

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52°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

38° Traverse Table

322° / 218° | 038° / 142°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	237.2	185.3	361	284.5	222.3	421	331.8	259.2	481	379.0	296.1	541	426.3	333.1
02	238.0	185.9	62	285.3	222.9	22	332.5	259.8	82	379.8	296.7	42	427.1	333.7
03	238.8	186.5	63	286.0	223.5	23	333.3	260.4	83	380.6	297.4	43	427.9	334.3
04	239.6	187.2	64	286.8	224.1	24	334.1	261.0	84	381.4	298.0	44	428.7	334.9
05	240.3	187.8	65	287.6	224.7	25	334.9	261.7	85	382.2	298.6	45	429.5	335.5
06	241.1	188.4	66	288.4	225.3	26	335.7	262.3	86	383.0	299.2	46	430.3	336.2
07	241.9	189.0	67	289.2	225.9	27	336.5	262.9	87	383.8	299.8	47	431.0	336.8
08	242.7	189.6	68	290.0	226.6	28	337.3	263.5	88	384.5	300.4	48	431.8	337.4
09	243.5	190.2	69	290.8	227.2	29	338.1	264.1	89	385.3	301.1	49	432.6	338.0
10	244.3	190.9	70	291.6	227.8	30	338.8	264.7	90	386.1	301.7	50	433.4	338.6
311	245.1	191.5	371	292.4	228.4	431	339.6	265.4	491	386.9	302.3	551	434.2	339.2
12	245.9	192.1	72	293.1	229.0	32	340.4	266.0	92	387.7	302.9	52	435.0	339.8
13	246.6	192.7	73	293.9	229.6	33	341.2	266.6	93	388.5	303.5	53	435.8	340.5
14	247.4	193.3	74	294.7	230.3	34	342.0	267.2	94	389.3	304.1	54	436.6	341.1
15	248.2	193.9	75	295.5	230.9	35	342.8	267.8	95	390.1	304.8	55	437.3	341.7
16	249.0	194.5	76	296.3	231.5	36	343.6	268.4	96	390.9	305.4	56	438.1	342.3
17	249.8	195.2	77	297.1	232.1	37	344.4	269.0	97	391.6	306.0	57	438.9	342.9
18	250.6	195.8	78	297.9	232.7	38	345.1	269.7	98	392.4	306.6	58	439.7	343.5
19	251.4	196.4	79	298.7	233.3	39	345.9	270.3	99	393.2	307.2	59	440.5	344.2
20	252.2	197.0	80	299.4	234.0	40	346.7	270.9	500	394.0	307.8	60	441.3	344.8
321	253.0	197.6	381	300.2	234.6	441	347.5	271.5	501	394.8	308.4	561	442.1	345.4
22	253.7	198.2	82	301.0	235.2	42	348.3	272.1	02	395.6	309.1	62	442.9	346.0
23	254.5	198.9	83	301.8	235.8	43	349.1	272.7	03	396.4	309.7	63	443.7	346.6
24	255.3	199.5	84	302.6	236.4	44	349.9	273.4	04	397.2	310.3	64	444.4	347.2
25	256.1	200.1	85	303.4	237.0	45	350.7	274.0	05	397.9	310.9	65	445.2	347.8
26	256.9	200.7	86	304.2	237.6	46	351.5	274.6	06	398.7	311.5	66	446.0	348.5
27	257.7	201.3	87	305.0	238.3	47	352.2	275.2	07	399.5	312.1	67	446.8	349.1
28	258.5	201.9	88	305.7	238.9	48	353.0	275.8	08	400.3	312.8	68	447.6	349.7
29	259.3	202.6	89	306.5	239.5	49	353.8	276.4	09	401.1	313.4	69	448.4	350.3
30	260.0	203.2	90	307.3	240.1	50	354.6	277.0	10	401.9	314.0	70	449.2	350.9
331	260.8	203.8	391	308.1	240.7	451	355.4	277.7	511	402.7	314.6	571	450.0	351.5
32	261.6	204.4	92	308.9	241.3	52	356.2	278.3	12	403.5	315.2	72	450.7	352.2
33	262.4	205.0	93	309.7	242.0	53	357.0	278.9	13	404.2	315.8	73	451.5	352.8
34	263.2	205.6	94	310.5	242.6	54	357.8	279.5	14	405.0	316.4	74	452.3	353.4
35	264.0	206.2	95	311.3	243.2	55	358.5	280.1	15	405.8	317.1	75	453.1	354.0
36	264.8	206.9	96	312.1	243.8	56	359.3	280.7	16	406.6	317.7	76	453.9	354.6
37	265.6	207.5	97	312.8	244.4	57	360.1	281.4	17	407.4	318.3	77	454.7	355.2
38	266.3	208.1	98	313.6	245.0	58	360.9	282.0	18	408.2	318.9	78	455.5	355.9
39	267.1	208.7	99	314.4	245.6	59	361.7	282.6	19	409.0	319.5	79	456.3	356.5
40	267.9	209.3	400	315.2	246.3	60	362.5	283.2	20	409.8	320.1	80	457.0	357.1
341	268.7	209.9	401	316.0	246.9	461	363.3	283.8	521	410.6	320.8	581	457.8	357.7
42	269.5	210.6	02	316.8	247.5	62	364.1	284.4	22	411.3	321.4	82	458.6	358.3
43	270.3	211.2	03	317.6	248.1	63	364.8	285.1	23	412.1	322.0	83	459.4	358.9
44	271.1	211.8	04	318.4	248.7	64	365.6	285.7	24	412.9	322.6	84	460.2	359.5
45	271.9	212.4	05	319.1	249.3	65	366.4	286.3	25	413.7	323.2	85	461.0	360.2
46	272.7	213.0	06	319.9	250.0	66	367.2	286.9	26	414.5	323.8	86	461.8	360.8
47	273.4	213.6	07	320.7	250.6	67	368.0	287.5	27	415.3	324.5	87	462.6	361.4
48	274.2	214.3	08	321.5	251.2	68	368.8	288.1	28	416.1	325.1	88	463.4	362.0
49	275.0	214.9	09	322.3	251.8	69	369.6	288.7	29	416.9	325.7	89	464.1	362.6
50	275.8	215.5	10	323.1	252.4	70	370.4	289.4	30	417.6	326.3	90	464.9	363.2
351	276.6	216.1	411	323.9	253.0	471	371.2	290.0	531	418.4	326.9	591	465.7	363.9
52	277.4	216.7	12	324.7	253.7	72	371.9	290.6	32	419.2	327.5	92	466.5	364.5
53	278.2	217.3	13	325.4	254.3	73	372.7	291.2	33	420.0	328.1	93	467.3	365.1
54	279.0	217.9	14	326.2	254.9	74	373.5	291.8	34	420.8	328.8	94	468.1	365.7
55	279.7	218.6	15	327.0	255.5	75	374.3	292.4	35	421.6	329.4	95	468.9	366.3
56	280.5	219.2	16	327.8	256.1	76	375.1	293.1	36	422.4	330.0	96	469.7	366.9
57	281.3	219.8	17	328.6	256.7	77	375.9	293.7	37	423.2	330.6	97	470.4	367.5
58	282.1	220.4	18	329.4	257.3	78	376.7	294.3	38	423.9	331.2	98	471.2	368.2
59	282.9	221.0	19	330.2	258.0	79	377.5	294.9	39	424.7	331.8	99	472.0	368.8
60	283.7	221.6	20	331.0	258.6	80	378.2	295.5	40	425.5	332.5	600	472.8	369.4
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

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52°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

321° / 219° | 039° / 141°

Traverse **39°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.8	0.6	61	47.4	38.4	121	94.0	76.1	181	140.7	113.9	241	187.3	151.7
2	1.6	1.3	62	48.2	39.0	22	94.8	76.8	82	141.4	114.5	42	188.1	152.3
3	2.3	1.9	63	49.0	39.6	23	95.6	77.4	83	142.2	115.2	43	188.8	152.9
4	3.1	2.5	64	49.7	40.3	24	96.4	78.0	84	143.0	115.8	44	189.6	153.6
5	3.9	3.1	65	50.5	40.9	25	97.1	78.7	85	143.8	116.4	45	190.4	154.2
6	4.7	3.8	66	51.3	41.5	26	97.9	79.3	86	144.5	117.1	46	191.2	154.8
7	5.4	4.4	67	52.1	42.2	27	98.7	79.9	87	145.3	117.7	47	192.0	155.4
8	6.2	5.0	68	52.8	42.8	28	99.5	80.6	88	146.1	118.3	48	192.7	156.1
9	7.0	5.7	69	53.6	43.4	29	100.3	81.2	89	146.9	118.9	49	193.5	156.7
10	7.8	6.3	70	54.4	44.1	30	101.0	81.8	90	147.7	119.6	50	194.3	157.3
11	8.5	6.9	71	55.2	44.7	131	101.8	82.4	191	148.4	120.2	251	195.1	158.0
12	9.3	7.6	72	56.0	45.3	32	102.6	83.1	92	149.2	120.8	52	195.8	158.6
13	10.1	8.2	73	56.7	45.9	33	103.4	83.7	93	150.0	121.5	53	196.6	159.2
14	10.9	8.8	74	57.5	46.6	34	104.1	84.3	94	150.8	122.1	54	197.4	159.8
15	11.7	9.4	75	58.3	47.2	35	104.9	85.0	95	151.5	122.7	55	198.2	160.5
16	12.4	10.1	76	59.1	47.8	36	105.7	85.6	96	152.3	123.3	56	198.9	161.1
17	13.2	10.7	77	59.8	48.5	37	106.5	86.2	97	153.1	124.0	57	199.7	161.7
18	14.0	11.3	78	60.6	49.1	38	107.2	86.8	98	153.9	124.6	58	200.5	162.4
19	14.8	12.0	79	61.4	49.7	39	108.0	87.5	99	154.7	125.2	59	201.3	163.0
20	15.5	12.6	80	62.2	50.3	40	108.8	88.1	200	155.4	125.9	60	202.1	163.6
21	16.3	13.2	81	62.9	51.0	141	109.6	88.7	201	156.2	126.5	261	202.8	164.3
22	17.1	13.8	82	63.7	51.6	42	110.4	89.4	02	157.0	127.1	62	203.6	164.9
23	17.9	14.5	83	64.5	52.2	43	111.1	90.0	03	157.8	127.8	63	204.4	165.5
24	18.7	15.1	84	65.3	52.9	44	111.9	90.6	04	158.5	128.4	64	205.2	166.1
25	19.4	15.7	85	66.1	53.5	45	112.7	91.3	05	159.3	129.0	65	205.9	166.8
26	20.2	16.4	86	66.8	54.1	46	113.5	91.9	06	160.1	129.6	66	206.7	167.4
27	21.0	17.0	87	67.6	54.8	47	114.2	92.5	07	160.9	130.3	67	207.5	168.0
28	21.8	17.6	88	68.4	55.4	48	115.0	93.1	08	161.6	130.9	68	208.3	168.7
29	22.5	18.3	89	69.2	56.0	49	115.8	93.8	09	162.4	131.5	69	209.1	169.3
30	23.3	18.9	90	69.9	56.6	50	116.6	94.4	10	163.2	132.2	70	209.8	169.9
31	24.1	19.5	91	70.7	57.3	151	117.3	95.0	211	164.0	132.8	271	210.6	170.5
32	24.9	20.1	92	71.5	57.9	52	118.1	95.7	12	164.8	133.4	72	211.4	171.2
33	25.6	20.8	93	72.3	58.5	53	118.9	96.3	13	165.5	134.0	73	212.2	171.8
34	26.4	21.4	94	73.1	59.2	54	119.7	96.9	14	166.3	134.7	74	212.9	172.4
35	27.2	22.0	95	73.8	59.8	55	120.5	97.5	15	167.1	135.3	75	213.7	173.1
36	28.0	22.7	96	74.6	60.4	56	121.2	98.2	16	167.9	135.9	76	214.5	173.7
37	28.8	23.3	97	75.4	61.0	57	122.0	98.8	17	168.6	136.6	77	215.3	174.3
38	29.5	23.9	98	76.2	61.7	58	122.8	99.4	18	169.4	137.2	78	216.0	175.0
39	30.3	24.5	99	76.9	62.3	59	123.6	100.1	19	170.2	137.8	79	216.8	175.6
40	31.1	25.2	100	77.7	62.9	60	124.3	100.7	20	171.0	138.5	80	217.6	176.2
41	31.9	25.8	101	78.5	63.6	161	125.1	101.3	221	171.7	139.1	281	218.4	176.8
42	32.6	26.4	02	79.3	64.2	62	125.9	101.9	22	172.5	139.7	82	219.2	177.5
43	33.4	27.1	03	80.0	64.8	63	126.7	102.6	23	173.3	140.3	83	219.9	178.1
44	34.2	27.7	04	80.8	65.4	64	127.5	103.2	24	174.1	141.0	84	220.7	178.7
45	35.0	28.3	05	81.6	66.1	65	128.2	103.8	25	174.9	141.6	85	221.5	179.4
46	35.7	28.9	06	82.4	66.7	66	129.0	104.5	26	175.6	142.2	86	222.3	180.0
47	36.5	29.6	07	83.2	67.3	67	129.8	105.1	27	176.4	142.9	87	223.0	180.6
48	37.3	30.2	08	83.9	68.0	68	130.6	105.7	28	177.2	143.5	88	223.8	181.2
49	38.1	30.8	09	84.7	68.6	69	131.3	106.4	29	178.0	144.1	89	224.6	181.9
50	38.9	31.5	10	85.5	69.2	70	132.1	107.0	30	178.7	144.7	90	225.4	182.5
51	39.6	32.1	111	86.3	69.9	171	132.9	107.6	231	179.5	145.4	291	226.1	183.1
52	40.4	32.7	12	87.0	70.5	72	133.7	108.2	32	180.3	146.0	92	226.9	183.8
53	41.2	33.4	13	87.8	71.1	73	134.4	108.9	33	181.1	146.6	93	227.7	184.4
54	42.0	34.0	14	88.6	71.7	74	135.2	109.5	34	181.9	147.3	94	228.5	185.0
55	42.7	34.6	15	89.4	72.4	75	136.0	110.1	35	182.6	147.9	95	229.3	185.6
56	43.5	35.2	16	90.1	73.0	76	136.8	110.8	36	183.4	148.5	96	230.0	186.3
57	44.3	35.9	17	90.9	73.6	77	137.6	111.4	37	184.2	149.1	97	230.8	186.9
58	45.1	36.5	18	91.7	74.3	78	138.3	112.0	38	185.0	149.8	98	231.6	187.5
59	45.9	37.1	19	92.5	74.9	79	139.1	112.6	39	185.7	150.4	99	232.4	188.2
60	46.6	37.8	20	93.3	75.5	80	139.9	113.3	40	186.5	151.0	300	233.1	188.8
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

309° / 231° | 051° / 129°

51°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

321° / 219° | 039° / 141°

Traverse **39°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	233.9	189.4	361	280.5	227.2	421	327.2	264.9	481	373.8	302.7	541	420.4	340.5
02	234.7	190.1	62	281.3	227.8	22	328.0	265.6	82	374.6	303.3	42	421.2	341.1
03	235.5	190.7	63	282.1	228.4	23	328.7	266.2	83	375.4	304.0	43	422.0	341.7
04	236.3	191.3	64	282.9	229.1	24	329.5	266.8	84	376.1	304.6	44	422.8	342.4
05	237.0	191.9	65	283.7	229.7	25	330.3	267.5	85	376.9	305.2	45	423.5	343.0
06	237.8	192.6	66	284.4	230.3	26	331.1	268.1	86	377.7	305.8	46	424.3	343.6
07	238.6	193.2	67	285.2	231.0	27	331.8	268.7	87	378.5	306.5	47	425.1	344.2
08	239.4	193.8	68	286.0	231.6	28	332.6	269.3	88	379.2	307.1	48	425.9	344.9
09	240.1	194.5	69	286.8	232.2	29	333.4	270.0	89	380.0	307.7	49	426.7	345.5
10	240.9	195.1	70	287.5	232.8	30	334.2	270.6	90	380.8	308.4	50	427.4	346.1
311	241.7	195.7	371	288.3	233.5	431	334.9	271.2	491	381.6	309.0	551	428.2	346.8
12	242.5	196.3	72	289.1	234.1	32	335.7	271.9	92	382.4	309.6	52	429.0	347.4
13	243.2	197.0	73	289.9	234.7	33	336.5	272.5	93	383.1	310.3	53	429.8	348.0
14	244.0	197.6	74	290.7	235.4	34	337.3	273.1	94	383.9	310.9	54	430.5	348.6
15	244.8	198.2	75	291.4	236.0	35	338.1	273.8	95	384.7	311.5	55	431.3	349.3
16	245.6	198.9	76	292.2	236.6	36	338.8	274.4	96	385.5	312.1	56	432.1	349.9
17	246.4	199.5	77	293.0	237.3	37	339.6	275.0	97	386.2	312.8	57	432.9	350.5
18	247.1	200.1	78	293.8	237.9	38	340.4	275.6	98	387.0	313.4	58	433.6	351.2
19	247.9	200.8	79	294.5	238.5	39	341.2	276.3	99	387.8	314.0	59	434.4	351.8
20	248.7	201.4	80	295.3	239.1	40	341.9	276.9	500	388.6	314.7	60	435.2	352.4
321	249.5	202.0	381	296.1	239.8	441	342.7	277.5	501	389.4	315.3	561	436.0	353.0
22	250.2	202.6	82	296.9	240.4	42	343.5	278.2	02	390.1	315.9	62	436.8	353.7
23	251.0	203.3	83	297.6	241.0	43	344.3	278.8	03	390.9	316.5	63	437.5	354.3
24	251.8	203.9	84	298.4	241.7	44	345.1	279.4	04	391.7	317.2	64	438.3	354.9
25	252.6	204.5	85	299.2	242.3	45	345.8	280.0	05	392.5	317.8	65	439.1	355.6
26	253.3	205.2	86	300.0	242.9	46	346.6	280.7	06	393.2	318.4	66	439.9	356.2
27	254.1	205.8	87	300.8	243.5	47	347.4	281.3	07	394.0	319.1	67	440.6	356.8
28	254.9	206.4	88	301.5	244.2	48	348.2	281.9	08	394.8	319.7	68	441.4	357.5
29	255.7	207.0	89	302.3	244.8	49	348.9	282.6	09	395.6	320.3	69	442.2	358.1
30	256.5	207.7	90	303.1	245.4	50	349.7	283.2	10	396.3	321.0	70	443.0	358.7
331	257.2	208.3	391	303.9	246.1	451	350.5	283.8	511	397.1	321.6	571	443.8	359.3
32	258.0	208.9	92	304.6	246.7	52	351.3	284.5	12	397.9	322.2	72	444.5	360.0
33	258.8	209.6	93	305.4	247.3	53	352.0	285.1	13	398.7	322.8	73	445.3	360.6
34	259.6	210.2	94	306.2	248.0	54	352.8	285.7	14	399.5	323.5	74	446.1	361.2
35	260.3	210.8	95	307.0	248.6	55	353.6	286.3	15	400.2	324.1	75	446.9	361.9
36	261.1	211.5	96	307.7	249.2	56	354.4	287.0	16	401.0	324.7	76	447.6	362.5
37	261.9	212.1	97	308.5	249.8	57	355.2	287.6	17	401.8	325.4	77	448.4	363.1
38	262.7	212.7	98	309.3	250.5	58	355.9	288.2	18	402.6	326.0	78	449.2	363.7
39	263.5	213.3	99	310.1	251.1	59	356.7	288.9	19	403.3	326.6	79	450.0	364.4
40	264.2	214.0	400	310.9	251.7	60	357.5	289.5	20	404.1	327.2	80	450.7	365.0
341	265.0	214.6	401	311.6	252.4	461	358.3	290.1	521	404.9	327.9	581	451.5	365.6
42	265.8	215.2	02	312.4	253.0	62	359.0	290.7	22	405.7	328.5	82	452.3	366.3
43	266.6	215.9	03	313.2	253.6	63	359.8	291.4	23	406.4	329.1	83	453.1	366.9
44	267.3	216.5	04	314.0	254.2	64	360.6	292.0	24	407.2	329.8	84	453.9	367.5
45	268.1	217.1	05	314.7	254.9	65	361.4	292.6	25	408.0	330.4	85	454.6	368.2
46	268.9	217.7	06	315.5	255.5	66	362.2	293.3	26	408.8	331.0	86	455.4	368.8
47	269.7	218.4	07	316.3	256.1	67	362.9	293.9	27	409.6	331.7	87	456.2	369.4
48	270.4	219.0	08	317.1	256.8	68	363.7	294.5	28	410.3	332.3	88	457.0	370.0
49	271.2	219.6	09	317.9	257.4	69	364.5	295.2	29	411.1	332.9	89	457.7	370.7
50	272.0	220.3	10	318.6	258.0	70	365.3	295.8	30	411.9	333.5	90	458.5	371.3
351	272.8	220.9	411	319.4	258.7	471	366.0	296.4	531	412.7	334.2	591	459.3	371.9
52	273.6	221.5	12	320.2	259.3	72	366.8	297.0	32	413.4	334.8	92	460.1	372.6
53	274.3	222.2	13	321.0	259.9	73	367.6	297.7	33	414.2	335.4	93	460.8	373.2
54	275.1	222.8	14	321.7	260.5	74	368.4	298.3	34	415.0	336.1	94	461.6	373.8
55	275.9	223.4	15	322.5	261.2	75	369.1	298.9	35	415.8	336.7	95	462.4	374.4
56	276.7	224.0	16	323.3	261.8	76	369.9	299.6	36	416.6	337.3	96	463.2	375.1
57	277.4	224.7	17	324.1	262.4	77	370.7	300.2	37	417.3	337.9	97	464.0	375.7
58	278.2	225.3	18	324.8	263.1	78	371.5	300.8	38	418.1	338.6	98	464.7	376.3
59	279.0	225.9	19	325.6	263.7	79	372.3	301.4	39	418.9	339.2	99	465.5	377.0
60	279.8	226.6	20	326.4	264.3	80	373.0	302.1	40	419.7	339.8	600	466.3	377.6
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

309° / 231° | 051° / 129°

51°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

40° Traverse Table

320° / 220° | 040° / 140°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.8	0.6	61	46.7	39.2	121	92.7	77.8	181	138.7	116.3	241	184.6	154.9
2	1.5	1.3	62	47.5	39.9	22	93.5	78.4	82	139.4	117.0	42	185.4	155.6
3	2.3	1.9	63	48.3	40.5	23	94.2	79.1	83	140.2	117.6	43	186.1	156.2
4	3.1	2.6	64	49.0	41.1	24	95.0	79.7	84	141.0	118.3	44	186.9	156.8
5	3.8	3.2	65	49.8	41.8	25	95.8	80.3	85	141.7	118.9	45	187.7	157.5
6	4.6	3.9	66	50.6	42.4	26	96.5	81.0	86	142.5	119.6	46	188.4	158.1
7	5.4	4.5	67	51.3	43.1	27	97.3	81.6	87	143.3	120.2	47	189.2	158.8
8	6.1	5.1	68	52.1	43.7	28	98.1	82.3	88	144.0	120.8	48	190.0	159.4
9	6.9	5.8	69	52.9	44.4	29	98.8	82.9	89	144.8	121.5	49	190.7	160.1
10	7.7	6.4	70	53.6	45.0	30	99.6	83.6	90	145.5	122.1	50	191.5	160.7
11	8.4	7.1	71	54.4	45.6	131	100.4	84.2	191	146.3	122.8	251	192.3	161.3
12	9.2	7.7	72	55.2	46.3	32	101.1	84.8	92	147.1	123.4	52	193.0	162.0
13	10.0	8.4	73	55.9	46.9	33	101.9	85.5	93	147.8	124.1	53	193.8	162.6
14	10.7	9.0	74	56.7	47.6	34	102.6	86.1	94	148.6	124.7	54	194.6	163.3
15	11.5	9.6	75	57.5	48.2	35	103.4	86.8	95	149.4	125.3	55	195.3	163.9
16	12.3	10.3	76	58.2	48.9	36	104.2	87.4	96	150.1	126.0	56	196.1	164.6
17	13.0	10.9	77	59.0	49.5	37	104.9	88.1	97	150.9	126.6	57	196.9	165.2
18	13.8	11.6	78	59.8	50.1	38	105.7	88.7	98	151.7	127.3	58	197.6	165.8
19	14.6	12.2	79	60.5	50.8	39	106.5	89.3	99	152.4	127.9	59	198.4	166.5
20	15.3	12.9	80	61.3	51.4	40	107.2	90.0	200	153.2	128.6	60	199.2	167.1
21	16.1	13.5	81	62.0	52.1	141	108.0	90.6	201	154.0	129.2	261	199.9	167.8
22	16.9	14.1	82	62.8	52.7	42	108.8	91.3	02	154.7	129.8	62	200.7	168.4
23	17.6	14.8	83	63.6	53.4	43	109.5	91.9	03	155.5	130.5	63	201.5	169.1
24	18.4	15.4	84	64.3	54.0	44	110.3	92.6	04	156.3	131.1	64	202.2	169.7
25	19.2	16.1	85	65.1	54.6	45	111.1	93.2	05	157.0	131.8	65	203.0	170.3
26	19.9	16.7	86	65.9	55.3	46	111.8	93.8	06	157.8	132.4	66	203.8	171.0
27	20.7	17.4	87	66.6	55.9	47	112.6	94.5	07	158.6	133.1	67	204.5	171.6
28	21.4	18.0	88	67.4	56.6	48	113.4	95.1	08	159.3	133.7	68	205.3	172.3
29	22.2	18.6	89	68.2	57.2	49	114.1	95.8	09	160.1	134.3	69	206.1	172.9
30	23.0	19.3	90	68.9	57.9	50	114.9	96.4	10	160.9	135.0	70	206.8	173.6
31	23.7	19.9	91	69.7	58.5	151	115.7	97.1	211	161.6	135.6	271	207.6	174.2
32	24.5	20.6	92	70.5	59.1	52	116.4	97.7	12	162.4	136.3	72	208.4	174.8
33	25.3	21.2	93	71.2	59.8	53	117.2	98.3	13	163.2	136.9	73	209.1	175.5
34	26.0	21.9	94	72.0	60.4	54	118.0	99.0	14	163.9	137.6	74	209.9	176.1
35	26.8	22.5	95	72.8	61.1	55	118.7	99.6	15	164.7	138.2	75	210.7	176.8
36	27.6	23.1	96	73.5	61.7	56	119.5	100.3	16	165.5	138.8	76	211.4	177.4
37	28.3	23.8	97	74.3	62.4	57	120.3	100.9	17	166.2	139.5	77	212.2	178.1
38	29.1	24.4	98	75.1	63.0	58	121.0	101.6	18	167.0	140.1	78	213.0	178.7
39	29.9	25.1	99	75.8	63.6	59	121.8	102.2	19	167.8	140.8	79	213.7	179.3
40	30.6	25.7	100	76.6	64.3	60	122.6	102.8	20	168.5	141.4	80	214.5	180.0
41	31.4	26.4	101	77.4	64.9	161	123.3	103.5	221	169.3	142.1	281	215.3	180.6
42	32.2	27.0	02	78.1	65.6	62	124.1	104.1	22	170.1	142.7	82	216.0	181.3
43	32.9	27.6	03	78.9	66.2	63	124.9	104.8	23	170.8	143.3	83	216.8	181.9
44	33.7	28.3	04	79.7	66.8	64	125.6	105.4	24	171.6	144.0	84	217.6	182.6
45	34.5	28.9	05	80.4	67.5	65	126.4	106.1	25	172.4	144.6	85	218.3	183.2
46	35.2	29.6	06	81.2	68.1	66	127.2	106.7	26	173.1	145.3	86	219.1	183.8
47	36.0	30.2	07	82.0	68.8	67	127.9	107.3	27	173.9	145.9	87	219.9	184.5
48	36.8	30.9	08	82.7	69.4	68	128.7	108.0	28	174.7	146.6	88	220.6	185.1
49	37.5	31.5	09	83.5	70.1	69	129.5	108.6	29	175.4	147.2	89	221.4	185.8
50	38.3	32.1	10	84.3	70.7	70	130.2	109.3	30	176.2	147.8	90	222.2	186.4
51	39.1	32.8	111	85.0	71.3	171	131.0	109.9	231	177.0	148.5	291	222.9	187.1
52	39.8	33.4	12	85.8	72.0	72	131.8	110.6	32	177.7	149.1	92	223.7	187.7
53	40.6	34.1	13	86.6	72.6	73	132.5	111.2	33	178.5	149.8	93	224.5	188.3
54	41.4	34.7	14	87.3	73.3	74	133.3	111.8	34	179.3	150.4	94	225.2	189.0
55	42.1	35.4	15	88.1	73.9	75	134.1	112.5	35	180.0	151.1	95	226.0	189.6
56	42.9	36.0	16	88.9	74.6	76	134.8	113.1	36	180.8	151.7	96	226.7	190.3
57	43.7	36.6	17	89.6	75.2	77	135.6	113.8	37	181.6	152.3	97	227.5	190.9
58	44.4	37.3	18	90.4	75.8	78	136.4	114.4	38	182.3	153.0	98	228.3	191.6
59	45.2	37.9	19	91.2	76.5	79	137.1	115.1	39	183.1	153.6	99	229.0	192.2
60	46.0	38.6	20	91.9	77.1	80	137.9	115.7	40	183.9	154.3	300	229.8	192.8

Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

310° / 230° | 050° / 130°

50°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

40° Traverse Table

320° / 220° | 040° / 140°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	230.6	193.5	361	276.5	232.0	421	322.5	270.6	481	368.5	309.2	541	414.4	347.7
02	231.3	194.1	62	277.3	232.7	22	323.3	271.3	82	369.2	309.8	42	415.2	348.4
03	232.1	194.8	63	278.1	233.3	23	324.0	271.9	83	370.0	310.5	43	416.0	349.0
04	232.9	195.4	64	278.8	234.0	24	324.8	272.5	84	370.8	311.1	44	416.7	349.7
05	233.6	196.1	65	279.6	234.6	25	325.6	273.2	85	371.5	311.8	45	417.5	350.3
06	234.4	196.7	66	280.4	235.3	26	326.3	273.8	86	372.3	312.4	46	418.3	351.0
07	235.2	197.3	67	281.1	235.9	27	327.1	274.5	87	373.1	313.0	47	419.0	351.6
08	235.9	198.0	68	281.9	236.5	28	327.9	275.1	88	373.8	313.7	48	419.8	352.2
09	236.7	198.6	69	282.7	237.2	29	328.6	275.8	89	374.6	314.3	49	420.6	352.9
10	237.5	199.3	70	283.4	237.8	30	329.4	276.4	90	375.4	315.0	50	421.3	353.5
311	238.2	199.9	371	284.2	238.5	431	330.2	277.0	491	376.1	315.6	551	422.1	354.2
12	239.0	200.5	72	285.0	239.1	32	330.9	277.7	92	376.9	316.3	52	422.9	354.8
13	239.8	201.2	73	285.7	239.8	33	331.7	278.3	93	377.7	316.9	53	423.6	355.5
14	240.5	201.8	74	286.5	240.4	34	332.5	279.0	94	378.4	317.5	54	424.4	356.1
15	241.3	202.5	75	287.3	241.0	35	333.2	279.6	95	379.2	318.2	55	425.2	356.7
16	242.1	203.1	76	288.0	241.7	36	334.0	280.3	96	380.0	318.8	56	425.9	357.4
17	242.8	203.8	77	288.8	242.3	37	334.8	280.9	97	380.7	319.5	57	426.7	358.0
18	243.6	204.4	78	289.6	243.0	38	335.5	281.5	98	381.5	320.1	58	427.5	358.7
19	244.4	205.0	79	290.3	243.6	39	336.3	282.2	99	382.3	320.8	59	428.2	359.3
20	245.1	205.7	80	291.1	244.3	40	337.1	282.8	500	383.0	321.4	60	429.0	360.0
321	245.9	206.3	381	291.9	244.9	441	337.8	283.5	501	383.8	322.0	561	429.8	360.6
22	246.7	207.0	82	292.6	245.5	42	338.6	284.1	02	384.6	322.7	62	430.5	361.2
23	247.4	207.6	83	293.4	246.2	43	339.4	284.8	03	385.3	323.3	63	431.3	361.9
24	248.2	208.3	84	294.2	246.8	44	340.1	285.4	04	386.1	324.0	64	432.0	362.5
25	249.0	208.9	85	294.9	247.5	45	340.9	286.0	05	386.9	324.6	65	432.8	363.2
26	249.7	209.5	86	295.7	248.1	46	341.7	286.7	06	387.6	325.3	66	433.6	363.8
27	250.5	210.2	87	296.5	248.8	47	342.4	287.3	07	388.4	325.9	67	434.3	364.5
28	251.3	210.8	88	297.2	249.4	48	343.2	288.0	08	389.2	326.5	68	435.1	365.1
29	252.0	211.5	89	298.0	250.0	49	344.0	288.6	09	389.9	327.2	69	435.9	365.7
30	252.8	212.1	90	298.8	250.7	50	344.7	289.3	10	390.7	327.8	70	436.6	366.4
331	253.6	212.8	391	299.5	251.3	451	345.5	289.9	511	391.4	328.5	571	437.4	367.0
32	254.3	213.4	92	300.3	252.0	52	346.3	290.5	12	392.2	329.1	72	438.2	367.7
33	255.1	214.0	93	301.1	252.6	53	347.0	291.2	13	393.0	329.8	73	438.9	368.3
34	255.9	214.7	94	301.8	253.3	54	347.8	291.8	14	393.7	330.4	74	439.7	369.0
35	256.6	215.3	95	302.6	253.9	55	348.6	292.5	15	394.5	331.0	75	440.5	369.6
36	257.4	216.0	96	303.4	254.5	56	349.3	293.1	16	395.3	331.7	76	441.2	370.2
37	258.2	216.6	97	304.1	255.2	57	350.1	293.8	17	396.0	332.3	77	442.0	370.9
38	258.9	217.3	98	304.9	255.8	58	350.8	294.4	18	396.8	333.0	78	442.8	371.5
39	259.7	217.9	99	305.7	256.5	59	351.6	295.0	19	397.6	333.6	79	443.5	372.2
40	260.5	218.5	400	306.4	257.1	60	352.4	295.7	20	398.3	334.2	80	444.3	372.8
341	261.2	219.2	401	307.2	257.8	461	353.1	296.3	521	399.1	334.9	581	445.1	373.5
42	262.0	219.8	02	307.9	258.4	62	353.9	297.0	22	399.9	335.5	82	445.8	374.1
43	262.8	220.5	03	308.7	259.0	63	354.7	297.6	23	400.6	336.2	83	446.6	374.7
44	263.5	221.1	04	309.5	259.7	64	355.4	298.3	24	401.4	336.8	84	447.4	375.4
45	264.3	221.8	05	310.2	260.3	65	356.2	298.9	25	402.2	337.5	85	448.1	376.0
46	265.1	222.4	06	311.0	261.0	66	357.0	299.5	26	402.9	338.1	86	448.9	376.7
47	265.8	223.0	07	311.8	261.6	67	357.7	300.2	27	403.7	338.7	87	449.7	377.3
48	266.6	223.7	08	312.5	262.3	68	358.5	300.8	28	404.5	339.4	88	450.4	378.0
49	267.3	224.3	09	313.3	262.9	69	359.3	301.5	29	405.2	340.0	89	451.2	378.6
50	268.1	225.0	10	314.1	263.5	70	360.0	302.1	30	406.0	340.7	90	452.0	379.2
351	268.9	225.6	411	314.8	264.2	471	360.8	302.8	531	406.8	341.3	591	452.7	379.9
52	269.6	226.3	12	315.6	264.8	72	361.6	303.4	32	407.5	342.0	92	453.5	380.5
53	270.4	226.9	13	316.4	265.5	73	362.3	304.0	33	408.3	342.6	93	454.3	381.2
54	271.2	227.5	14	317.1	266.1	74	363.1	304.7	34	409.1	343.2	94	455.0	381.8
55	271.9	228.2	15	317.9	266.8	75	363.9	305.3	35	409.8	343.9	95	455.8	382.5
56	272.7	228.8	16	318.7	267.4	76	364.6	306.0	36	410.6	344.5	96	456.6	383.1
57	273.5	229.5	17	319.4	268.0	77	365.4	306.6	37	411.4	345.2	97	457.3	383.7
58	274.2	230.1	18	320.2	268.7	78	366.2	307.3	38	412.1	345.8	98	458.1	384.4
59	275.0	230.8	19	321.0	269.3	79	366.9	307.9	39	412.9	346.5	99	458.9	385.0
60	275.8	231.4	20	321.7	270.0	80	367.7	308.5	40	413.7	347.1	600	459.6	385.7

Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

50°

310° / 230° | 050° / 130°

TABLE 4

319° | 041° / 221° | 139°

Traverse **41°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.8	0.7	61	46.0	40.0	121	91.3	79.4	181	136.6	118.7	241	181.9	158.1
2	1.5	1.3	62	46.8	40.7	22	92.1	80.0	82	137.4	119.4	42	182.6	158.8
3	2.3	2.0	63	47.5	41.3	23	92.8	80.7	83	138.1	120.1	43	183.4	159.4
4	3.0	2.6	64	48.3	42.0	24	93.6	81.4	84	138.9	120.7	44	184.1	160.1
5	3.8	3.3	65	49.1	42.6	25	94.3	82.0	85	139.6	121.4	45	184.9	160.7
6	4.5	3.9	66	49.8	43.3	26	95.1	82.7	86	140.4	122.0	46	185.7	161.4
7	5.3	4.6	67	50.6	44.0	27	95.8	83.3	87	141.1	122.7	47	186.4	162.0
8	6.0	5.2	68	51.3	44.6	28	96.6	84.0	88	141.9	123.3	48	187.2	162.7
9	6.8	5.9	69	52.1	45.3	29	97.4	84.6	89	142.6	124.0	49	187.9	163.4
10	7.5	6.6	70	52.8	45.9	30	98.1	85.3	90	143.4	124.7	50	188.7	164.0
11	8.3	7.2	71	53.6	46.6	131	98.9	85.9	191	144.1	125.3	251	189.4	164.7
12	9.1	7.9	72	54.3	47.2	32	99.6	86.6	92	144.9	126.0	52	190.2	165.3
13	9.8	8.5	73	55.1	47.9	33	100.4	87.3	93	145.7	126.6	53	190.9	166.0
14	10.6	9.2	74	55.8	48.5	34	101.1	87.9	94	146.4	127.3	54	191.7	166.6
15	11.3	9.8	75	56.6	49.2	35	101.9	88.6	95	147.2	127.9	55	192.5	167.3
16	12.1	10.5	76	57.4	49.9	36	102.6	89.2	96	147.9	128.6	56	193.2	168.0
17	12.8	11.2	77	58.1	50.5	37	103.4	89.9	97	148.7	129.2	57	194.0	168.6
18	13.6	11.8	78	58.9	51.2	38	104.1	90.5	98	149.4	129.9	58	194.7	169.3
19	14.3	12.5	79	59.6	51.8	39	104.9	91.2	99	150.2	130.6	59	195.5	169.9
20	15.1	13.1	80	60.4	52.5	40	105.7	91.8	200	150.9	131.2	60	196.2	170.6
21	15.8	13.8	81	61.1	53.1	141	106.4	92.5	201	151.7	131.9	261	197.0	171.2
22	16.6	14.4	82	61.9	53.8	42	107.2	93.2	02	152.5	132.5	62	197.7	171.9
23	17.4	15.1	83	62.6	54.5	43	107.9	93.8	03	153.2	133.2	63	198.5	172.5
24	18.1	15.7	84	63.4	55.1	44	108.7	94.5	04	154.0	133.8	64	199.2	173.2
25	18.9	16.4	85	64.2	55.8	45	109.4	95.1	05	154.7	134.5	65	200.0	173.9
26	19.6	17.1	86	64.9	56.4	46	110.2	95.8	06	155.5	135.1	66	200.8	174.5
27	20.4	17.7	87	65.7	57.1	47	110.9	96.4	07	156.2	135.8	67	201.5	175.2
28	21.1	18.4	88	66.4	57.7	48	111.7	97.1	08	157.0	136.5	68	202.3	175.8
29	21.9	19.0	89	67.2	58.4	49	112.5	97.8	09	157.7	137.1	69	203.0	176.5
30	22.6	19.7	90	67.9	59.0	50	113.2	98.4	10	158.5	137.8	70	203.8	177.1
31	23.4	20.3	91	68.7	59.7	151	114.0	99.1	211	159.2	138.4	271	204.5	177.8
32	24.2	21.0	92	69.4	60.4	52	114.7	99.7	12	160.0	139.1	72	205.3	178.4
33	24.9	21.6	93	70.2	61.0	53	115.5	100.4	13	160.8	139.7	73	206.0	179.1
34	25.7	22.3	94	70.9	61.7	54	116.2	101.0	14	161.5	140.4	74	206.8	179.8
35	26.4	23.0	95	71.7	62.3	55	117.0	101.7	15	162.3	141.1	75	207.5	180.4
36	27.2	23.6	96	72.5	63.0	56	117.7	102.3	16	163.0	141.7	76	208.3	181.1
37	27.9	24.3	97	73.2	63.6	57	118.5	103.0	17	163.8	142.4	77	209.1	181.7
38	28.7	24.9	98	74.0	64.3	58	119.2	103.7	18	164.5	143.0	78	209.8	182.4
39	29.4	25.6	99	74.7	64.9	59	120.0	104.3	19	165.3	143.7	79	210.6	183.0
40	30.2	26.2	100	75.5	65.6	60	120.8	105.0	20	166.0	144.3	80	211.3	183.7
41	30.9	26.9	101	76.2	66.3	161	121.5	105.6	221	166.8	145.0	281	212.1	184.4
42	31.7	27.6	02	77.0	66.9	62	122.3	106.3	22	167.5	145.6	82	212.8	185.0
43	32.5	28.2	03	77.7	67.6	63	123.0	106.9	23	168.3	146.3	83	213.6	185.7
44	33.2	28.9	04	78.5	68.2	64	123.8	107.6	24	169.1	147.0	84	214.3	186.3
45	34.0	29.5	05	79.2	68.9	65	124.5	108.2	25	169.8	147.6	85	215.1	187.0
46	34.7	30.2	06	80.0	69.5	66	125.3	108.9	26	170.6	148.3	86	215.8	187.6
47	35.5	30.8	07	80.8	70.2	67	126.0	109.6	27	171.3	148.9	87	216.6	188.3
48	36.2	31.5	08	81.5	70.9	68	126.8	110.2	28	172.1	149.6	88	217.4	188.9
49	37.0	32.1	09	82.3	71.5	69	127.5	110.9	29	172.8	150.2	89	218.1	189.6
50	37.7	32.8	10	83.0	72.2	70	128.3	111.5	30	173.6	150.9	90	218.9	190.3
51	38.5	33.5	111	83.8	72.8	171	129.1	112.2	231	174.3	151.5	291	219.6	190.9
52	39.2	34.1	12	84.5	73.5	72	129.8	112.8	32	175.1	152.2	92	220.4	191.6
53	40.0	34.8	13	85.3	74.1	73	130.6	113.5	33	175.8	152.9	93	221.1	192.2
54	40.8	35.4	14	86.0	74.8	74	131.3	114.2	34	176.6	153.5	94	221.9	192.9
55	41.5	36.1	15	86.8	75.4	75	132.1	114.8	35	177.4	154.2	95	222.6	193.5
56	42.3	36.7	16	87.5	76.1	76	132.8	115.5	36	178.1	154.8	96	223.4	194.2
57	43.0	37.4	17	88.3	76.8	77	133.6	116.1	37	178.9	155.5	97	224.1	194.8
58	43.8	38.1	18	89.1	77.4	78	134.3	116.8	38	179.6	156.1	98	224.9	195.5
59	44.5	38.7	19	89.8	78.1	79	135.1	117.4	39	180.4	156.8	99	225.7	196.2
60	45.3	39.4	20	90.6	78.7	80	135.8	118.1	40	181.1	157.5	300	226.4	196.8
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

311° | 049° / 229° | 131°

49°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

319° | 041° / 221° | 139°

Traverse **41°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	227.2	197.5	361	272.5	236.8	421	317.7	276.2	481	363.0	315.6	541	408.3	354.9
02	227.9	198.1	62	273.2	237.5	22	318.5	276.9	82	363.8	316.2	42	409.1	355.6
03	228.7	198.8	63	274.0	238.1	23	319.2	277.5	83	364.5	316.9	43	409.8	356.2
04	229.4	199.4	64	274.7	238.8	24	320.0	278.2	84	365.3	317.5	44	410.6	356.9
05	230.2	200.1	65	275.5	239.5	25	320.8	278.8	85	366.0	318.2	45	411.3	357.6
06	230.9	200.8	66	276.2	240.1	26	321.5	279.5	86	366.8	318.8	46	412.1	358.2
07	231.7	201.4	67	277.0	240.8	27	322.3	280.1	87	367.5	319.5	47	412.8	358.9
08	232.5	202.1	68	277.7	241.4	28	323.0	280.8	88	368.3	320.2	48	413.6	359.5
09	233.2	202.7	69	278.5	242.1	29	323.8	281.4	89	369.1	320.8	49	414.3	360.2
10	234.0	203.4	70	279.2	242.7	30	324.5	282.1	90	369.8	321.5	50	415.1	360.8
311	234.7	204.0	371	280.0	243.4	431	325.3	282.8	491	370.6	322.1	551	415.8	361.5
12	235.5	204.7	72	280.8	244.1	32	326.0	283.4	92	371.3	322.8	52	416.6	362.1
13	236.2	205.3	73	281.5	244.7	33	326.8	284.1	93	372.1	323.4	53	417.4	362.8
14	237.0	206.0	74	282.3	245.4	34	327.5	284.7	94	372.8	324.1	54	418.1	363.5
15	237.7	206.7	75	283.0	246.0	35	328.3	285.4	95	373.6	324.7	55	418.9	364.1
16	238.5	207.3	76	283.8	246.7	36	329.1	286.0	96	374.3	325.4	56	419.6	364.8
17	239.2	208.0	77	284.5	247.3	37	329.8	286.7	97	375.1	326.1	57	420.4	365.4
18	240.0	208.6	78	285.3	248.0	38	330.6	287.4	98	375.8	326.7	58	421.1	366.1
19	240.8	209.3	79	286.0	248.6	39	331.3	288.0	99	376.6	327.4	59	421.9	366.7
20	241.5	209.9	80	286.8	249.3	40	332.1	288.7	500	377.4	328.0	60	422.6	367.4
321	242.3	210.6	381	287.5	250.0	441	332.8	289.3	501	378.1	328.7	561	423.4	368.0
22	243.0	211.3	82	288.3	250.6	42	333.6	290.0	02	378.9	329.3	62	424.1	368.7
23	243.8	211.9	83	289.1	251.3	43	334.3	290.6	03	379.6	330.0	63	424.9	369.4
24	244.5	212.6	84	289.8	251.9	44	335.1	291.3	04	380.4	330.7	64	425.7	370.0
25	245.3	213.2	85	290.6	252.6	45	335.8	291.9	05	381.1	331.3	65	426.4	370.7
26	246.0	213.9	86	291.3	253.2	46	336.6	292.6	06	381.9	332.0	66	427.2	371.3
27	246.8	214.5	87	292.1	253.9	47	337.4	293.3	07	382.6	332.6	67	427.9	372.0
28	247.5	215.2	88	292.8	254.6	48	338.1	293.9	08	383.4	333.3	68	428.7	372.6
29	248.3	215.8	89	293.6	255.2	49	338.9	294.6	09	384.1	333.9	69	429.4	373.3
30	249.1	216.5	90	294.3	255.9	50	339.6	295.2	10	384.9	334.6	70	430.2	374.0
331	249.8	217.2	391	295.1	256.5	451	340.4	295.9	511	385.7	335.2	571	430.9	374.6
32	250.6	217.8	92	295.8	257.2	52	341.1	296.5	12	386.4	335.9	72	431.7	375.3
33	251.3	218.5	93	296.6	257.8	53	341.9	297.2	13	387.2	336.6	73	432.4	375.9
34	252.1	219.1	94	297.4	258.5	54	342.6	297.9	14	387.9	337.2	74	433.2	376.6
35	252.8	219.8	95	298.1	259.1	55	343.4	298.5	15	388.7	337.9	75	434.0	377.2
36	253.6	220.4	96	298.9	259.8	56	344.1	299.2	16	389.4	338.5	76	434.7	377.9
37	254.3	221.1	97	299.6	260.5	57	344.9	299.8	17	390.2	339.2	77	435.5	378.5
38	255.1	221.7	98	300.4	261.1	58	345.7	300.5	18	390.9	339.8	78	436.2	379.2
39	255.8	222.4	99	301.1	261.8	59	346.4	301.1	19	391.7	340.5	79	437.0	379.9
40	256.6	223.1	400	301.9	262.4	60	347.2	301.8	20	392.4	341.2	80	437.7	380.5
341	257.4	223.7	401	302.6	263.1	461	347.9	302.4	521	393.2	341.8	581	438.5	381.2
42	258.1	224.4	02	303.4	263.7	62	348.7	303.1	22	394.0	342.5	82	439.2	381.8
43	258.9	225.0	03	304.1	264.4	63	349.4	303.8	23	394.7	343.1	83	440.0	382.5
44	259.6	225.7	04	304.9	265.0	64	350.2	304.4	24	395.5	343.8	84	440.8	383.1
45	260.4	226.3	05	305.7	265.7	65	350.9	305.1	25	396.2	344.4	85	441.5	383.8
46	261.1	227.0	06	306.4	266.4	66	351.7	305.7	26	397.0	345.1	86	442.3	384.5
47	261.9	227.7	07	307.2	267.0	67	352.4	306.4	27	397.7	345.7	87	443.0	385.1
48	262.6	228.3	08	307.9	267.7	68	353.2	307.0	28	398.5	346.4	88	443.8	385.8
49	263.4	229.0	09	308.7	268.3	69	354.0	307.7	29	399.2	347.1	89	444.5	386.4
50	264.1	229.6	10	309.4	269.0	70	354.7	308.3	30	400.0	347.7	90	445.3	387.1
351	264.9	230.3	411	310.2	269.6	471	355.5	309.0	531	400.8	348.4	591	446.0	387.7
52	265.7	230.9	12	310.9	270.3	72	356.2	309.7	32	401.5	349.0	92	446.8	388.4
53	266.4	231.6	13	311.7	271.0	73	357.0	310.3	33	402.3	349.7	93	447.5	389.0
54	267.2	232.2	14	312.4	271.6	74	357.7	311.0	34	403.0	350.3	94	448.3	389.7
55	267.9	232.9	15	313.2	272.3	75	358.5	311.6	35	403.8	351.0	95	449.1	390.4
56	268.7	233.6	16	314.0	272.9	76	359.2	312.3	36	404.5	351.6	96	449.8	391.0
57	269.4	234.2	17	314.7	273.6	77	360.0	312.9	37	405.3	352.3	97	450.6	391.7
58	270.2	234.9	18	315.5	274.2	78	360.8	313.6	38	406.0	353.0	98	451.3	392.3
59	270.9	235.5	19	316.2	274.9	79	361.5	314.3	39	406.8	353.6	99	452.1	393.0
60	271.7	236.2	20	317.0	275.5	80	362.3	314.9	40	407.5	354.3	600	452.8	393.6
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

311° | 049° / 229° | 131°

49°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

42° Traverse Table

318° / 222° | 042° / 138°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.7	0.7	61	45.3	40.8	121	89.9	81.0	181	134.5	121.1	241	179.1	161.3
2	1.5	1.3	62	46.1	41.5	22	90.7	81.6	82	135.3	121.8	42	179.8	161.9
3	2.2	2.0	63	46.8	42.2	23	91.4	82.3	83	136.0	122.5	43	180.6	162.6
4	3.0	2.7	64	47.6	42.8	24	92.1	83.0	84	136.7	123.1	44	181.3	163.3
5	3.7	3.3	65	48.3	43.5	25	92.9	83.6	85	137.5	123.8	45	182.1	163.9
6	4.5	4.0	66	49.0	44.2	26	93.6	84.3	86	138.2	124.5	46	182.8	164.6
7	5.2	4.7	67	49.8	44.8	27	94.4	85.0	87	139.0	125.1	47	183.6	165.3
8	5.9	5.4	68	50.5	45.5	28	95.1	85.6	88	139.7	125.8	48	184.3	165.9
9	6.7	6.0	69	51.3	46.2	29	95.9	86.3	89	140.5	126.5	49	185.0	166.6
10	7.4	6.7	70	52.0	46.8	30	96.6	87.0	90	141.2	127.1	50	185.8	167.3
11	8.2	7.4	71	52.8	47.5	131	97.4	87.7	191	141.9	127.8	251	186.5	168.0
12	8.9	8.0	72	53.5	48.2	32	98.1	88.3	92	142.7	128.5	52	187.3	168.6
13	9.7	8.7	73	54.2	48.8	33	98.8	89.0	93	143.4	129.1	53	188.0	169.3
14	10.4	9.4	74	55.0	49.5	34	99.6	89.7	94	144.2	129.8	54	188.8	170.0
15	11.1	10.0	75	55.7	50.2	35	100.3	90.3	95	144.9	130.5	55	189.5	170.6
16	11.9	10.7	76	56.5	50.9	36	101.1	91.0	96	145.7	131.1	56	190.2	171.3
17	12.6	11.4	77	57.2	51.5	37	101.8	91.7	97	146.4	131.8	57	191.0	172.0
18	13.4	12.0	78	58.0	52.2	38	102.6	92.3	98	147.1	132.5	58	191.7	172.6
19	14.1	12.7	79	58.7	52.9	39	103.3	93.0	99	147.9	133.2	59	192.5	173.3
20	14.9	13.4	80	59.5	53.5	40	104.0	93.7	200	148.6	133.8	60	193.2	174.0
21	15.6	14.1	81	60.2	54.2	141	104.8	94.3	201	149.4	134.5	261	194.0	174.6
22	16.3	14.7	82	60.9	54.9	42	105.5	95.0	02	150.1	135.2	62	194.7	175.3
23	17.1	15.4	83	61.7	55.5	43	106.3	95.7	03	150.9	135.8	63	195.4	176.0
24	17.8	16.1	84	62.4	56.2	44	107.0	96.4	04	151.6	136.5	64	196.2	176.7
25	18.6	16.7	85	63.2	56.9	45	107.8	97.0	05	152.3	137.2	65	196.9	177.3
26	19.3	17.4	86	63.9	57.5	46	108.5	97.7	06	153.1	137.8	66	197.7	178.0
27	20.1	18.1	87	64.7	58.2	47	109.2	98.4	07	153.8	138.5	67	198.4	178.7
28	20.8	18.7	88	65.4	58.9	48	110.0	99.0	08	154.6	139.2	68	199.2	179.3
29	21.6	19.4	89	66.1	59.6	49	110.7	99.7	09	155.3	139.8	69	199.9	180.0
30	22.3	20.1	90	66.9	60.2	50	111.5	100.4	10	156.1	140.5	70	200.6	180.7
31	23.0	20.7	91	67.6	60.9	151	112.2	101.0	211	156.8	141.2	271	201.4	181.3
32	23.8	21.4	92	68.4	61.6	52	113.0	101.7	12	157.5	141.9	72	202.1	182.0
33	24.5	22.1	93	69.1	62.2	53	113.7	102.4	13	158.3	142.5	73	202.9	182.7
34	25.3	22.8	94	69.9	62.9	54	114.4	103.0	14	159.0	143.2	74	203.6	183.3
35	26.0	23.4	95	70.6	63.6	55	115.2	103.7	15	159.8	143.9	75	204.4	184.0
36	26.8	24.1	96	71.3	64.2	56	115.9	104.4	16	160.5	144.5	76	205.1	184.7
37	27.5	24.8	97	72.1	64.9	57	116.7	105.1	17	161.3	145.2	77	205.9	185.3
38	28.2	25.4	98	72.8	65.6	58	117.4	105.7	18	162.0	145.9	78	206.6	186.0
39	29.0	26.1	99	73.6	66.2	59	118.2	106.4	19	162.7	146.5	79	207.3	186.7
40	29.7	26.8	100	74.3	66.9	60	118.9	107.1	20	163.5	147.2	80	208.1	187.4
41	30.5	27.4	101	75.1	67.6	161	119.6	107.7	221	164.2	147.9	281	208.8	188.0
42	31.2	28.1	02	75.8	68.3	62	120.4	108.4	22	165.0	148.5	82	209.6	188.7
43	32.0	28.8	03	76.5	68.9	63	121.1	109.1	23	165.7	149.2	83	210.3	189.4
44	32.7	29.4	04	77.3	69.6	64	121.9	109.7	24	166.5	149.9	84	211.1	190.0
45	33.4	30.1	05	78.0	70.3	65	122.6	110.4	25	167.2	150.6	85	211.8	190.7
46	34.2	30.8	06	78.8	70.9	66	123.4	111.1	26	168.0	151.2	86	212.5	191.4
47	34.9	31.4	07	79.5	71.6	67	124.1	111.7	27	168.7	151.9	87	213.3	192.0
48	35.7	32.1	08	80.3	72.3	68	124.8	112.4	28	169.4	152.6	88	214.0	192.7
49	36.4	32.8	09	81.0	72.9	69	125.6	113.1	29	170.2	153.2	89	214.8	193.4
50	37.2	33.5	10	81.7	73.6	70	126.3	113.8	30	170.9	153.9	90	215.5	194.0
51	37.9	34.1	111	82.5	74.3	171	127.1	114.4	231	171.7	154.6	291	216.3	194.7
52	38.6	34.8	12	83.2	74.9	72	127.8	115.1	32	172.4	155.2	92	217.0	195.4
53	39.4	35.5	13	84.0	75.6	73	128.6	115.8	33	173.2	155.9	93	217.7	196.1
54	40.1	36.1	14	84.7	76.3	74	129.3	116.4	34	173.9	156.6	94	218.5	196.7
55	40.9	36.8	15	85.5	77.0	75	130.1	117.1	35	174.6	157.2	95	219.2	197.4
56	41.6	37.5	16	86.2	77.6	76	130.8	117.8	36	175.4	157.9	96	220.0	198.1
57	42.4	38.1	17	86.9	78.3	77	131.5	118.4	37	176.1	158.6	97	220.7	198.7
58	43.1	38.8	18	87.7	79.0	78	132.3	119.1	38	176.9	159.3	98	221.5	199.4
59	43.8	39.5	19	88.4	79.6	79	133.0	119.8	39	177.6	159.9	99	222.2	200.1
60	44.6	40.1	20	89.2	80.3	80	133.8	120.4	40	178.4	160.6	300	222.9	200.7
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

312° / 228° | 048° / 132°

48°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

42° Traverse Table

318° / 222° | 042° / 138°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	223.7	201.4	361	268.3	241.6	421	312.9	281.7	481	357.5	321.9	541	402.0	362.0
02	224.4	202.1	62	269.0	242.2	22	313.6	282.4	82	358.2	322.5	42	402.8	362.7
03	225.2	202.7	63	269.8	242.9	23	314.4	283.0	83	358.9	323.2	43	403.5	363.3
04	225.9	203.4	64	270.5	243.6	24	315.1	283.7	84	359.7	323.9	44	404.3	364.0
05	226.7	204.1	65	271.2	244.2	25	315.8	284.4	85	360.4	324.5	45	405.0	364.7
06	227.4	204.8	66	272.0	244.9	26	316.6	285.0	86	361.2	325.2	46	405.8	365.3
07	228.1	205.4	67	272.7	245.6	27	317.3	285.7	87	361.9	325.9	47	406.5	366.0
08	228.9	206.1	68	273.5	246.2	28	318.1	286.4	88	362.7	326.5	48	407.2	366.7
09	229.6	206.8	69	274.2	246.9	29	318.8	287.1	89	363.4	327.2	49	408.0	367.4
10	230.4	207.4	70	275.0	247.6	30	319.6	287.7	90	364.1	327.9	50	408.7	368.0
311	231.1	208.1	371	275.7	248.2	431	320.3	288.4	491	364.9	328.5	551	409.5	368.7
12	231.9	208.8	72	276.4	248.9	32	321.0	289.1	92	365.6	329.2	52	410.2	369.4
13	232.6	209.4	73	277.2	249.6	33	321.8	289.7	93	366.4	329.9	53	411.0	370.0
14	233.3	210.1	74	277.9	250.3	34	322.5	290.4	94	367.1	330.6	54	411.7	370.7
15	234.1	210.8	75	278.7	250.9	35	323.3	291.1	95	367.9	331.2	55	412.4	371.4
16	234.8	211.4	76	279.4	251.6	36	324.0	291.7	96	368.6	331.9	56	413.2	372.0
17	235.6	212.1	77	280.2	252.3	37	324.8	292.4	97	369.3	332.6	57	413.9	372.7
18	236.3	212.8	78	280.9	252.9	38	325.5	293.1	98	370.1	333.2	58	414.7	373.4
19	237.1	213.5	79	281.7	253.6	39	326.2	293.7	99	370.8	333.9	59	415.4	374.0
20	237.8	214.1	80	282.4	254.3	40	327.0	294.4	500	371.6	334.6	60	416.2	374.7
321	238.5	214.8	381	283.1	254.9	441	327.7	295.1	501	372.3	335.2	561	416.9	375.4
22	239.3	215.5	82	283.9	255.6	42	328.5	295.8	02	373.1	335.9	62	417.6	376.1
23	240.0	216.1	83	284.6	256.3	43	329.2	296.4	03	373.8	336.6	63	418.4	376.7
24	240.8	216.8	84	285.4	256.9	44	330.0	297.1	04	374.5	337.2	64	419.1	377.4
25	241.5	217.5	85	286.1	257.6	45	330.7	297.8	05	375.3	337.9	65	419.9	378.1
26	242.3	218.1	86	286.9	258.3	46	331.4	298.4	06	376.0	338.6	66	420.6	378.7
27	243.0	218.8	87	287.6	259.0	47	332.2	299.1	07	376.8	339.2	67	421.4	379.4
28	243.8	219.5	88	288.3	259.6	48	332.9	299.8	08	377.5	339.9	68	422.1	380.1
29	244.5	220.1	89	289.1	260.3	49	333.7	300.4	09	378.3	340.6	69	422.8	380.7
30	245.2	220.8	90	289.8	261.0	50	334.4	301.1	10	379.0	341.3	70	423.6	381.4
331	246.0	221.5	391	290.6	261.6	451	335.2	301.8	511	379.7	341.9	571	424.3	382.1
32	246.7	222.2	92	291.3	262.3	52	335.9	302.4	12	380.5	342.6	72	425.1	382.7
33	247.5	222.8	93	292.1	263.0	53	336.6	303.1	13	381.2	343.3	73	425.8	383.4
34	248.2	223.5	94	292.8	263.6	54	337.4	303.8	14	382.0	343.9	74	426.6	384.1
35	249.0	224.2	95	293.5	264.3	55	338.1	304.5	15	382.7	344.6	75	427.3	384.8
36	249.7	224.8	96	294.3	265.0	56	338.9	305.1	16	383.5	345.3	76	428.1	385.4
37	250.4	225.5	97	295.0	265.6	57	339.6	305.8	17	384.2	345.9	77	428.8	386.1
38	251.2	226.2	98	295.8	266.3	58	340.4	306.5	18	384.9	346.6	78	429.5	386.8
39	251.9	226.8	99	296.5	267.0	59	341.1	307.1	19	385.7	347.3	79	430.3	387.4
40	252.7	227.5	400	297.3	267.7	60	341.8	307.8	20	386.4	347.9	80	431.0	388.1
341	253.4	228.2	401	298.0	268.3	461	342.6	308.5	521	387.2	348.6	581	431.8	388.8
42	254.2	228.8	02	298.7	269.0	62	343.3	309.1	22	387.9	349.3	82	432.5	389.4
43	254.9	229.5	03	299.5	269.7	63	344.1	309.8	23	388.7	350.0	83	433.3	390.1
44	255.6	230.2	04	300.2	270.3	64	344.8	310.5	24	389.4	350.6	84	434.0	390.8
45	256.4	230.9	05	301.0	271.0	65	345.6	311.1	25	390.2	351.3	85	434.7	391.4
46	257.1	231.5	06	301.7	271.7	66	346.3	311.8	26	390.9	352.0	86	435.5	392.1
47	257.9	232.2	07	302.5	272.3	67	347.0	312.5	27	391.6	352.6	87	436.2	392.8
48	258.6	232.9	08	303.2	273.0	68	347.8	313.2	28	392.4	353.3	88	437.0	393.4
49	259.4	233.5	09	303.9	273.7	69	348.5	313.8	29	393.1	354.0	89	437.7	394.1
50	260.1	234.2	10	304.7	274.3	70	349.3	314.5	30	393.9	354.6	90	438.5	394.8
351	260.8	234.9	411	305.4	275.0	471	350.0	315.2	531	394.6	355.3	591	439.2	395.5
52	261.6	235.5	12	306.2	275.7	72	350.8	315.8	32	395.4	356.0	92	439.9	396.1
53	262.3	236.2	13	306.9	276.4	73	351.5	316.5	33	396.1	356.6	93	440.7	396.8
54	263.1	236.9	14	307.7	277.0	74	352.3	317.2	34	396.8	357.3	94	441.4	397.5
55	263.8	237.5	15	308.4	277.7	75	353.0	317.8	35	397.6	358.0	95	442.2	398.1
56	264.6	238.2	16	309.1	278.4	76	353.7	318.5	36	398.3	358.7	96	442.9	398.8
57	265.3	238.9	17	309.9	279.0	77	354.5	319.2	37	399.1	359.3	97	443.7	399.5
58	266.0	239.5	18	310.6	279.7	78	355.2	319.8	38	399.8	360.0	98	444.4	400.1
59	266.8	240.2	19	311.4	280.4	79	356.0	320.5	39	400.6	360.7	99	445.1	400.8
60	267.5	240.9	20	312.1	281.0	80	356.7	321.2	40	401.3	361.3	600	445.9	401.5
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

312° / 228° | 048° / 132°

48°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

317° | 043°
223° | 137°

Traverse **43°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.7	0.7	61	44.6	41.6	121	88.5	82.5	181	132.4	123.4	241	176.3	164.4
2	1.5	1.4	62	45.3	42.3	22	89.2	83.2	82	133.1	124.1	42	177.0	165.0
3	2.2	2.0	63	46.1	43.0	23	90.0	83.9	83	133.8	124.8	43	177.7	165.7
4	2.9	2.7	64	46.8	43.6	24	90.7	84.6	84	134.6	125.5	44	178.5	166.4
5	3.7	3.4	65	47.5	44.3	25	91.4	85.2	85	135.3	126.2	45	179.2	167.1
6	4.4	4.1	66	48.3	45.0	26	92.2	85.9	86	136.0	126.9	46	179.9	167.8
7	5.1	4.8	67	49.0	45.7	27	92.9	86.6	87	136.8	127.5	47	180.6	168.5
8	5.9	5.5	68	49.7	46.4	28	93.6	87.3	88	137.5	128.2	48	181.4	169.1
9	6.6	6.1	69	50.5	47.1	29	94.3	88.0	89	138.2	128.9	49	182.1	169.8
10	7.3	6.8	70	51.2	47.7	30	95.1	88.7	90	139.0	129.6	50	182.8	170.5
11	8.0	7.5	71	51.9	48.4	131	95.8	89.3	191	139.7	130.3	251	183.6	171.2
12	8.8	8.2	72	52.7	49.1	32	96.5	90.0	92	140.4	130.9	52	184.3	171.9
13	9.5	8.9	73	53.4	49.8	33	97.3	90.7	93	141.2	131.6	53	185.0	172.5
14	10.2	9.5	74	54.1	50.5	34	98.0	91.4	94	141.9	132.3	54	185.8	173.2
15	11.0	10.2	75	54.9	51.1	35	98.7	92.1	95	142.6	133.0	55	186.5	173.9
16	11.7	10.9	76	55.6	51.8	36	99.5	92.8	96	143.3	133.7	56	187.2	174.6
17	12.4	11.6	77	56.3	52.5	37	100.2	93.4	97	144.1	134.4	57	188.0	175.3
18	13.2	12.3	78	57.0	53.2	38	100.9	94.1	98	144.8	135.0	58	188.7	176.0
19	13.9	13.0	79	57.8	53.9	39	101.7	94.8	99	145.5	135.7	59	189.4	176.6
20	14.6	13.6	80	58.5	54.6	40	102.4	95.5	200	146.3	136.4	60	190.2	177.3
21	15.4	14.3	81	59.2	55.2	141	103.1	96.2	201	147.0	137.1	261	190.9	178.0
22	16.1	15.0	82	60.0	55.9	42	103.9	96.8	02	147.7	137.8	62	191.6	178.7
23	16.8	15.7	83	60.7	56.6	43	104.6	97.5	03	148.5	138.4	63	192.3	179.4
24	17.6	16.4	84	61.4	57.3	44	105.3	98.2	04	149.2	139.1	64	193.1	180.0
25	18.3	17.0	85	62.2	58.0	45	106.0	98.9	05	149.9	139.8	65	193.8	180.7
26	19.0	17.7	86	62.9	58.7	46	106.8	99.6	06	150.7	140.5	66	194.5	181.4
27	19.7	18.4	87	63.6	59.3	47	107.5	100.3	07	151.4	141.2	67	195.3	182.1
28	20.5	19.1	88	64.4	60.0	48	108.2	100.9	08	152.1	141.9	68	196.0	182.8
29	21.2	19.8	89	65.1	60.7	49	109.0	101.6	09	152.9	142.5	69	196.7	183.5
30	21.9	20.5	90	65.8	61.4	50	109.7	102.3	10	153.6	143.2	70	197.5	184.1
31	22.7	21.1	91	66.6	62.1	151	110.4	103.0	211	154.3	143.9	271	198.2	184.8
32	23.4	21.8	92	67.3	62.7	52	111.2	103.7	12	155.0	144.6	72	198.9	185.5
33	24.1	22.5	93	68.0	63.4	53	111.9	104.3	13	155.8	145.3	73	199.7	186.2
34	24.9	23.2	94	68.7	64.1	54	112.6	105.0	14	156.5	145.9	74	200.4	186.9
35	25.6	23.9	95	69.5	64.8	55	113.4	105.7	15	157.2	146.6	75	201.1	187.5
36	26.3	24.6	96	70.2	65.5	56	114.1	106.4	16	158.0	147.3	76	201.9	188.2
37	27.1	25.2	97	70.9	66.2	57	114.8	107.1	17	158.7	148.0	77	202.6	188.9
38	27.8	25.9	98	71.7	66.8	58	115.6	107.8	18	159.4	148.7	78	203.3	189.6
39	28.5	26.6	99	72.4	67.5	59	116.3	108.4	19	160.2	149.4	79	204.0	190.3
40	29.3	27.3	100	73.1	68.2	60	117.0	109.1	20	160.9	150.0	80	204.8	191.0
41	30.0	28.0	101	73.9	68.9	161	117.7	109.8	221	161.6	150.7	281	205.5	191.6
42	30.7	28.6	02	74.6	69.6	62	118.5	110.5	22	162.4	151.4	82	206.2	192.3
43	31.4	29.3	03	75.3	70.2	63	119.2	111.2	23	163.1	152.1	83	207.0	193.0
44	32.2	30.0	04	76.1	70.9	64	119.9	111.8	24	163.8	152.8	84	207.7	193.7
45	32.9	30.7	05	76.8	71.6	65	120.7	112.5	25	164.6	153.4	85	208.4	194.4
46	33.6	31.4	06	77.5	72.3	66	121.4	113.2	26	165.3	154.1	86	209.2	195.1
47	34.4	32.1	07	78.3	73.0	67	122.1	113.9	27	166.0	154.8	87	209.9	195.7
48	35.1	32.7	08	79.0	73.7	68	122.9	114.6	28	166.7	155.5	88	210.6	196.4
49	35.8	33.4	09	79.7	74.3	69	123.6	115.3	29	167.5	156.2	89	211.4	197.1
50	36.6	34.1	10	80.4	75.0	70	124.3	115.9	30	168.2	156.9	90	212.1	197.8
51	37.3	34.8	111	81.2	75.7	171	125.1	116.6	231	168.9	157.5	291	212.8	198.5
52	38.0	35.5	12	81.9	76.4	72	125.8	117.3	32	169.7	158.2	92	213.6	199.1
53	38.8	36.1	13	82.6	77.1	73	126.5	118.0	33	170.4	158.9	93	214.3	199.8
54	39.5	36.8	14	83.4	77.7	74	127.3	118.7	34	171.1	159.6	94	215.0	200.5
55	40.2	37.5	15	84.1	78.4	75	128.0	119.3	35	171.9	160.3	95	215.7	201.2
56	41.0	38.2	16	84.8	79.1	76	128.7	120.0	36	172.6	161.0	96	216.5	201.9
57	41.7	38.9	17	85.6	79.8	77	129.4	120.7	37	173.3	161.6	97	217.2	202.6
58	42.4	39.6	18	86.3	80.5	78	130.2	121.4	38	174.1	162.3	98	217.9	203.2
59	43.1	40.2	19	87.0	81.2	79	130.9	122.1	39	174.8	163.0	99	218.7	203.9
60	43.9	40.9	20	87.8	81.8	80	131.6	122.8	40	175.5	163.7	300	219.4	204.6
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

313° | 047°
227° | 133°

47°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

317° | 043°
223° | 137°

Traverse **43°** Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	220.1	205.3	361	264.0	246.2	421	307.9	287.1	481	351.8	328.0	541	395.7	369.0
02	220.9	206.0	62	264.8	246.9	22	308.6	287.8	82	352.5	328.7	42	396.4	369.6
03	221.6	206.6	63	265.5	247.6	23	309.4	288.5	83	353.2	329.4	43	397.1	370.3
04	222.3	207.3	64	266.2	248.2	24	310.1	289.2	84	354.0	330.1	44	397.9	371.0
05	223.1	208.0	65	266.9	248.9	25	310.8	289.8	85	354.7	330.8	45	398.6	371.7
06	223.8	208.7	66	267.7	249.6	26	311.6	290.5	86	355.4	331.5	46	399.3	372.4
07	224.5	209.4	67	268.4	250.3	27	312.3	291.2	87	356.2	332.1	47	400.1	373.1
08	225.3	210.1	68	269.1	251.0	28	313.0	291.9	88	356.9	332.8	48	400.8	373.7
09	226.0	210.7	69	269.9	251.7	29	313.8	292.6	89	357.6	333.5	49	401.5	374.4
10	226.7	211.4	70	270.6	252.3	30	314.5	293.3	90	358.4	334.2	50	402.2	375.1
311	227.5	212.1	371	271.3	253.0	431	315.2	293.9	491	359.1	334.9	551	403.0	375.8
12	228.2	212.8	72	272.1	253.7	32	315.9	294.6	92	359.8	335.5	52	403.7	376.5
13	228.9	213.5	73	272.8	254.4	33	316.7	295.3	93	360.6	336.2	53	404.4	377.1
14	229.6	214.1	74	273.5	255.1	34	317.4	296.0	94	361.3	336.9	54	405.2	377.8
15	230.4	214.8	75	274.3	255.7	35	318.1	296.7	95	362.0	337.6	55	405.9	378.5
16	231.1	215.5	76	275.0	256.4	36	318.9	297.4	96	362.8	338.3	56	406.6	379.2
17	231.8	216.2	77	275.7	257.1	37	319.6	298.0	97	363.5	339.0	57	407.4	379.9
18	232.6	216.9	78	276.5	257.8	38	320.3	298.7	98	364.2	339.6	58	408.1	380.6
19	233.3	217.6	79	277.2	258.5	39	321.1	299.4	99	364.9	340.3	59	408.8	381.2
20	234.0	218.2	80	277.9	259.2	40	321.8	300.1	500	365.7	341.0	60	409.6	381.9
321	234.8	218.9	381	278.6	259.8	441	322.5	300.8	501	366.4	341.7	561	410.3	382.6
22	235.5	219.6	82	279.4	260.5	42	323.3	301.4	02	367.1	342.4	62	411.0	383.3
23	236.2	220.3	83	280.1	261.2	43	324.0	302.1	03	367.9	343.0	63	411.8	384.0
24	237.0	221.0	84	280.8	261.9	44	324.7	302.8	04	368.6	343.7	64	412.5	384.6
25	237.7	221.6	85	281.6	262.6	45	325.5	303.5	05	369.3	344.4	65	413.2	385.3
26	238.4	222.3	86	282.3	263.3	46	326.2	304.2	06	370.1	345.1	66	413.9	386.0
27	239.2	223.0	87	283.0	263.9	47	326.9	304.9	07	370.8	345.8	67	414.7	386.7
28	239.9	223.7	88	283.8	264.6	48	327.6	305.5	08	371.5	346.5	68	415.4	387.4
29	240.6	224.4	89	284.5	265.3	49	328.4	306.2	09	372.3	347.1	69	416.1	388.1
30	241.3	225.1	90	285.2	266.0	50	329.1	306.9	10	373.0	347.8	70	416.9	388.7
331	242.1	225.7	391	286.0	266.7	451	329.8	307.6	511	373.7	348.5	571	417.6	389.4
32	242.8	226.4	92	286.7	267.3	52	330.6	308.3	12	374.5	349.2	72	418.3	390.1
33	243.5	227.1	93	287.4	268.0	53	331.3	308.9	13	375.2	349.9	73	419.1	390.8
34	244.3	227.8	94	288.2	268.7	54	332.0	309.6	14	375.9	350.5	74	419.8	391.5
35	245.0	228.5	95	288.9	269.4	55	332.8	310.3	15	376.6	351.2	75	420.5	392.1
36	245.7	229.2	96	289.6	270.1	56	333.5	311.0	16	377.4	351.9	76	421.3	392.8
37	246.5	229.8	97	290.3	270.8	57	334.2	311.7	17	378.1	352.6	77	422.0	393.5
38	247.2	230.5	98	291.1	271.4	58	335.0	312.4	18	378.8	353.3	78	422.7	394.2
39	247.9	231.2	99	291.8	272.1	59	335.7	313.0	19	379.6	354.0	79	423.5	394.9
40	248.7	231.9	400	292.5	272.8	60	336.4	313.7	20	380.3	354.6	80	424.2	395.6
341	249.4	232.6	401	293.3	273.5	461	337.2	314.4	521	381.0	355.3	581	424.9	396.2
42	250.1	233.2	02	294.0	274.2	62	337.9	315.1	22	381.8	356.0	82	425.6	396.9
43	250.9	233.9	03	294.7	274.8	63	338.6	315.8	23	382.5	356.7	83	426.4	397.6
44	251.6	234.6	04	295.5	275.5	64	339.3	316.4	24	383.2	357.4	84	427.1	398.3
45	252.3	235.3	05	296.2	276.2	65	340.1	317.1	25	384.0	358.0	85	427.8	399.0
46	253.0	236.0	06	296.9	276.9	66	340.8	317.8	26	384.7	358.7	86	428.6	399.7
47	253.8	236.7	07	297.7	277.6	67	341.5	318.5	27	385.4	359.4	87	429.3	400.3
48	254.5	237.3	08	298.4	278.3	68	342.3	319.2	28	386.2	360.1	88	430.0	401.0
49	255.2	238.0	09	299.1	278.9	69	343.0	319.9	29	386.9	360.8	89	430.8	401.7
50	256.0	238.7	10	299.9	279.6	70	343.7	320.5	30	387.6	361.5	90	431.5	402.4
351	256.7	239.4	411	300.6	280.3	471	344.5	321.2	531	388.3	362.1	591	432.2	403.1
52	257.4	240.1	12	301.3	281.0	72	345.2	321.9	32	389.1	362.8	92	433.0	403.7
53	258.2	240.7	13	302.0	281.7	73	345.9	322.6	33	389.8	363.5	93	433.7	404.4
54	258.9	241.4	14	302.8	282.3	74	346.7	323.3	34	390.5	364.2	94	434.4	405.1
55	259.6	242.1	15	303.5	283.0	75	347.4	323.9	35	391.3	364.9	95	435.2	405.8
56	260.4	242.8	16	304.2	283.7	76	348.1	324.6	36	392.0	365.6	96	435.9	406.5
57	261.1	243.5	17	305.0	284.4	77	348.9	325.3	37	392.7	366.2	97	436.6	407.2
58	261.8	244.2	18	305.7	285.1	78	349.6	326.0	38	393.5	366.9	98	437.3	407.8
59	262.6	244.8	19	306.4	285.8	79	350.3	326.7	39	394.2	367.6	99	438.1	408.5
60	263.3	245.5	20	307.2	286.4	80	351.0	327.4	40	394.9	368.3	600	438.8	409.2
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

47°

313° | 047°
227° | 133°

TABLE 4

44° Traverse Table

316° / 224° | 044° / 136°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.7	0.7	61	43.9	42.4	121	87.0	84.1	181	130.2	125.7	241	173.4	167.4
2	1.4	1.4	62	44.6	43.1	22	87.8	84.7	82	130.9	126.4	42	174.1	168.1
3	2.2	2.1	63	45.3	43.8	23	88.5	85.4	83	131.6	127.1	43	174.8	168.8
4	2.9	2.8	64	46.0	44.5	24	89.2	86.1	84	132.4	127.8	44	175.5	169.5
5	3.6	3.5	65	46.8	45.2	25	89.9	86.8	85	133.1	128.5	45	176.2	170.2
6	4.3	4.2	66	47.5	45.8	26	90.6	87.5	86	133.8	129.2	46	177.0	170.9
7	5.0	4.9	67	48.2	46.5	27	91.4	88.2	87	134.5	129.9	47	177.7	171.6
8	5.8	5.6	68	48.9	47.2	28	92.1	88.9	88	135.2	130.6	48	178.4	172.3
9	6.5	6.3	69	49.6	47.9	29	92.8	89.6	89	136.0	131.3	49	179.1	173.0
10	7.2	6.9	70	50.4	48.6	30	93.5	90.3	90	136.7	132.0	50	179.8	173.7
11	7.9	7.6	71	51.1	49.3	131	94.2	91.0	191	137.4	132.7	251	180.6	174.4
12	8.6	8.3	72	51.8	50.0	32	95.0	91.7	92	138.1	133.4	52	181.3	175.1
13	9.4	9.0	73	52.5	50.7	33	95.7	92.4	93	138.8	134.1	53	182.0	175.7
14	10.1	9.7	74	53.2	51.4	34	96.4	93.1	94	139.6	134.8	54	182.7	176.4
15	10.8	10.4	75	54.0	52.1	35	97.1	93.8	95	140.3	135.5	55	183.4	177.1
16	11.5	11.1	76	54.7	52.8	36	97.8	94.5	96	141.0	136.2	56	184.2	177.8
17	12.2	11.8	77	55.4	53.5	37	98.5	95.2	97	141.7	136.8	57	184.9	178.5
18	12.9	12.5	78	56.1	54.2	38	99.3	95.9	98	142.4	137.5	58	185.6	179.2
19	13.7	13.2	79	56.8	54.9	39	100.0	96.6	99	143.1	138.2	59	186.3	179.9
20	14.4	13.9	80	57.5	55.6	40	100.7	97.3	200	143.9	138.9	60	187.0	180.6
21	15.1	14.6	81	58.3	56.3	141	101.4	97.9	201	144.6	139.6	261	187.7	181.3
22	15.8	15.3	82	59.0	57.0	42	102.1	98.6	02	145.3	140.3	62	188.5	182.0
23	16.5	16.0	83	59.7	57.7	43	102.9	99.3	03	146.0	141.0	63	189.2	182.7
24	17.3	16.7	84	60.4	58.4	44	103.6	100.0	04	146.7	141.7	64	189.9	183.4
25	18.0	17.4	85	61.1	59.0	45	104.3	100.7	05	147.5	142.4	65	190.6	184.1
26	18.7	18.1	86	61.9	59.7	46	105.0	101.4	06	148.2	143.1	66	191.3	184.8
27	19.4	18.8	87	62.6	60.4	47	105.7	102.1	07	148.9	143.8	67	192.1	185.5
28	20.1	19.5	88	63.3	61.1	48	106.5	102.8	08	149.6	144.5	68	192.8	186.2
29	20.9	20.1	89	64.0	61.8	49	107.2	103.5	09	150.3	145.2	69	193.5	186.9
30	21.6	20.8	90	64.7	62.5	50	107.9	104.2	10	151.1	145.9	70	194.2	187.6
31	22.3	21.5	91	65.5	63.2	151	108.6	104.9	211	151.8	146.6	271	194.9	188.3
32	23.0	22.2	92	66.2	63.9	52	109.3	105.6	12	152.5	147.3	72	195.7	188.9
33	23.7	22.9	93	66.9	64.6	53	110.1	106.3	13	153.2	148.0	73	196.4	189.6
34	24.5	23.6	94	67.6	65.3	54	110.8	107.0	14	153.9	148.7	74	197.1	190.3
35	25.2	24.3	95	68.3	66.0	55	111.5	107.7	15	154.7	149.4	75	197.8	191.0
36	25.9	25.0	96	69.1	66.7	56	112.2	108.4	16	155.4	150.0	76	198.5	191.7
37	26.6	25.7	97	69.8	67.4	57	112.9	109.1	17	156.1	150.7	77	199.3	192.4
38	27.3	26.4	98	70.5	68.1	58	113.7	109.8	18	156.8	151.4	78	200.0	193.1
39	28.1	27.1	99	71.2	68.8	59	114.4	110.5	19	157.5	152.1	79	200.7	193.8
40	28.8	27.8	100	71.9	69.5	60	115.1	111.1	20	158.3	152.8	80	201.4	194.5
41	29.5	28.5	101	72.7	70.2	161	115.8	111.8	221	159.0	153.5	281	202.1	195.2
42	30.2	29.2	02	73.4	70.9	62	116.5	112.5	22	159.7	154.2	82	202.9	195.9
43	30.9	29.9	03	74.1	71.5	63	117.3	113.2	23	160.4	154.9	83	203.6	196.6
44	31.7	30.6	04	74.8	72.2	64	118.0	113.9	24	161.1	155.6	84	204.3	197.3
45	32.4	31.3	05	75.5	72.9	65	118.7	114.6	25	161.9	156.3	85	205.0	198.0
46	33.1	32.0	06	76.3	73.6	66	119.4	115.3	26	162.6	157.0	86	205.7	198.7
47	33.8	32.6	07	77.0	74.3	67	120.1	116.0	27	163.3	157.7	87	206.5	199.4
48	34.5	33.3	08	77.7	75.0	68	120.8	116.7	28	164.0	158.4	88	207.2	200.1
49	35.2	34.0	09	78.4	75.7	69	121.6	117.4	29	164.7	159.1	89	207.9	200.8
50	36.0	34.7	10	79.1	76.4	70	122.3	118.1	30	165.4	159.8	90	208.6	201.5
51	36.7	35.4	111	79.8	77.1	171	123.0	118.8	231	166.2	160.5	291	209.3	202.1
52	37.4	36.1	12	80.6	77.8	72	123.7	119.5	32	166.9	161.2	92	210.0	202.8
53	38.1	36.8	13	81.3	78.5	73	124.4	120.2	33	167.6	161.9	93	210.8	203.5
54	38.8	37.5	14	82.0	79.2	74	125.2	120.9	34	168.3	162.6	94	211.5	204.2
55	39.6	38.2	15	82.7	79.9	75	125.9	121.6	35	169.0	163.2	95	212.2	204.9
56	40.3	38.9	16	83.4	80.6	76	126.6	122.3	36	169.8	163.9	96	212.9	205.6
57	41.0	39.6	17	84.2	81.3	77	127.3	123.0	37	170.5	164.6	97	213.6	206.3
58	41.7	40.3	18	84.9	82.0	78	128.0	123.6	38	171.2	165.3	98	214.4	207.0
59	42.4	41.0	19	85.6	82.7	79	128.8	124.3	39	171.9	166.0	99	215.1	207.7
60	43.2	41.7	20	86.3	83.4	80	129.5	125.0	40	172.6	166.7	300	215.8	208.4

Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

314° / 226° | 046° / 134°

46°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

44° Traverse Table

316° / 224° | 044° / 136°

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	216.5	209.1	361	259.7	250.8	421	302.8	292.5	481	346.0	334.1	541	389.2	375.8
02	217.2	209.8	62	260.4	251.5	22	303.6	293.1	82	346.7	334.8	42	389.9	376.5
03	218.0	210.5	63	261.1	252.2	23	304.3	293.8	83	347.4	335.5	43	390.6	377.2
04	218.7	211.2	64	261.8	252.9	24	305.0	294.5	84	348.2	336.2	44	391.3	377.9
05	219.4	211.9	65	262.6	253.6	25	305.7	295.2	85	348.9	336.9	45	392.0	378.6
06	220.1	212.6	66	263.3	254.2	26	306.4	295.9	86	349.6	337.6	46	392.8	379.3
07	220.8	213.3	67	264.0	254.9	27	307.2	296.6	87	350.3	338.3	47	393.5	380.0
08	221.6	214.0	68	264.7	255.6	28	307.9	297.3	88	351.0	339.0	48	394.2	380.7
09	222.3	214.6	69	265.4	256.3	29	308.6	298.0	89	351.8	339.7	49	394.9	381.4
10	223.0	215.3	70	266.2	257.0	30	309.3	298.7	90	352.5	340.4	50	395.6	382.1
311	223.7	216.0	371	266.9	257.7	431	310.0	299.4	491	353.2	341.1	551	396.4	382.8
12	224.4	216.7	72	267.6	258.4	32	310.8	300.1	92	353.9	341.8	52	397.1	383.5
13	225.2	217.4	73	268.3	259.1	33	311.5	300.8	93	354.6	342.5	53	397.8	384.1
14	225.9	218.1	74	269.0	259.8	34	312.2	301.5	94	355.4	343.2	54	398.5	384.8
15	226.6	218.8	75	269.8	260.5	35	312.9	302.2	95	356.1	343.9	55	399.2	385.5
16	227.3	219.5	76	270.5	261.2	36	313.6	302.9	96	356.8	344.6	56	400.0	386.2
17	228.0	220.2	77	271.2	261.9	37	314.4	303.6	97	357.5	345.2	57	400.7	386.9
18	228.8	220.9	78	271.9	262.6	38	315.1	304.3	98	358.2	345.9	58	401.4	387.6
19	229.5	221.6	79	272.6	263.3	39	315.8	305.0	99	359.0	346.6	59	402.1	388.3
20	230.2	222.3	80	273.3	264.0	40	316.5	305.6	500	359.7	347.3	60	402.8	389.0
321	230.9	223.0	381	274.1	264.7	441	317.2	306.3	501	360.4	348.0	561	403.5	389.7
22	231.6	223.7	82	274.8	265.4	42	317.9	307.0	02	361.1	348.7	62	404.3	390.4
23	232.3	224.4	83	275.5	266.1	43	318.7	307.7	03	361.8	349.4	63	405.0	391.1
24	233.1	225.1	84	276.2	266.7	44	319.4	308.4	04	362.5	350.1	64	405.7	391.8
25	233.8	225.8	85	276.9	267.4	45	320.1	309.1	05	363.3	350.8	65	406.4	392.5
26	234.5	226.5	86	277.7	268.1	46	320.8	309.8	06	364.0	351.5	66	407.1	393.2
27	235.2	227.2	87	278.4	268.8	47	321.5	310.5	07	364.7	352.2	67	407.9	393.9
28	235.9	227.8	88	279.1	269.5	48	322.3	311.2	08	365.4	352.9	68	408.6	394.6
29	236.7	228.5	89	279.8	270.2	49	323.0	311.9	09	366.1	353.6	69	409.3	395.3
30	237.4	229.2	90	280.5	270.9	50	323.7	312.6	10	366.9	354.3	70	410.0	396.0
331	238.1	229.9	391	281.3	271.6	451	324.4	313.3	511	367.6	355.0	571	410.7	396.6
32	238.8	230.6	92	282.0	272.3	52	325.1	314.0	12	368.3	355.7	72	411.5	397.3
33	239.5	231.3	93	282.7	273.0	53	325.9	314.7	13	369.0	356.4	73	412.2	398.0
34	240.3	232.0	94	283.4	273.7	54	326.6	315.4	14	369.7	357.1	74	412.9	398.7
35	241.0	232.7	95	284.1	274.4	55	327.3	316.1	15	370.5	357.7	75	413.6	399.4
36	241.7	233.4	96	284.9	275.1	56	328.0	316.8	16	371.2	358.4	76	414.3	400.1
37	242.4	234.1	97	285.6	275.8	57	328.7	317.5	17	371.9	359.1	77	415.1	400.8
38	243.1	234.8	98	286.3	276.5	58	329.5	318.2	18	372.6	359.8	78	415.8	401.5
39	243.9	235.5	99	287.0	277.2	59	330.2	318.8	19	373.3	360.5	79	416.5	402.2
40	244.6	236.2	400	287.7	277.9	60	330.9	319.5	20	374.1	361.2	80	417.2	402.9
341	245.3	236.9	401	288.5	278.6	461	331.6	320.2	521	374.8	361.9	581	417.9	403.6
42	246.0	237.6	02	289.2	279.3	62	332.3	320.9	22	375.5	362.6	82	418.7	404.3
43	246.7	238.3	03	289.9	279.9	63	333.1	321.6	23	376.2	363.3	83	419.4	405.0
44	247.5	239.0	04	290.6	280.6	64	333.8	322.3	24	376.9	364.0	84	420.1	405.7
45	248.2	239.7	05	291.3	281.3	65	334.5	323.0	25	377.7	364.7	85	420.8	406.4
46	248.9	240.4	06	292.1	282.0	66	335.2	323.7	26	378.4	365.4	86	421.5	407.1
47	249.6	241.0	07	292.8	282.7	67	335.9	324.4	27	379.1	366.1	87	422.3	407.8
48	250.3	241.7	08	293.5	283.4	68	336.7	325.1	28	379.8	366.8	88	423.0	408.5
49	251.0	242.4	09	294.2	284.1	69	337.4	325.8	29	380.5	367.5	89	423.7	409.2
50	251.8	243.1	10	294.9	284.8	70	338.1	326.5	30	381.3	368.2	90	424.4	409.8
351	252.5	243.8	411	295.6	285.5	471	338.8	327.2	531	382.0	368.9	591	425.1	410.5
52	253.2	244.5	12	296.4	286.2	72	339.5	327.9	32	382.7	369.6	92	425.8	411.2
53	253.9	245.2	13	297.1	286.9	73	340.2	328.6	33	383.4	370.3	93	426.6	411.9
54	254.6	245.9	14	297.8	287.6	74	341.0	329.3	34	384.1	370.9	94	427.3	412.6
55	255.4	246.6	15	298.5	288.3	75	341.7	330.0	35	384.8	371.6	95	428.0	413.3
56	256.1	247.3	16	299.2	289.0	76	342.4	330.7	36	385.6	372.3	96	428.7	414.0
57	256.8	248.0	17	300.0	289.7	77	343.1	331.4	37	386.3	373.0	97	429.4	414.7
58	257.5	248.7	18	300.7	290.4	78	343.8	332.0	38	387.0	373.7	98	430.2	415.4
59	258.2	249.4	19	301.4	291.1	79	344.6	332.7	39	387.7	374.4	99	430.9	416.1
60	259.0	250.1	20	302.1	291.8	80	345.3	333.4	40	388.4	375.1	600	431.6	416.8

Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

314° / 226° | 046° / 134°

46°

Dist.	D. Lat.	Dep.
D Lo	Dep.	
	m	D Lo

TABLE 4

315° | 045°
225° | 135°

45° Traverse Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
1	0.7	0.7	61	43.1	43.1	121	85.6	85.6	181	128.0	128.0	241	170.4	170.4
2	1.4	1.4	62	43.8	43.8	22	86.3	86.3	82	128.7	128.7	42	171.1	171.1
3	2.1	2.1	63	44.5	44.5	23	87.0	87.0	83	129.4	129.4	43	171.8	171.8
4	2.8	2.8	64	45.3	45.3	24	87.7	87.7	84	130.1	130.1	44	172.5	172.5
5	3.5	3.5	65	46.0	46.0	25	88.4	88.4	85	130.8	130.8	45	173.2	173.2
6	4.2	4.2	66	46.7	46.7	26	89.1	89.1	86	131.5	131.5	46	173.9	173.9
7	4.9	4.9	67	47.4	47.4	27	89.8	89.8	87	132.2	132.2	47	174.7	174.7
8	5.7	5.7	68	48.1	48.1	28	90.5	90.5	88	132.9	132.9	48	175.4	175.4
9	6.4	6.4	69	48.8	48.8	29	91.2	91.2	89	133.6	133.6	49	176.1	176.1
10	7.1	7.1	70	49.5	49.5	30	91.9	91.9	90	134.4	134.4	50	176.8	176.8
11	7.8	7.8	71	50.2	50.2	131	92.6	92.6	191	135.1	135.1	251	177.5	177.5
12	8.5	8.5	72	50.9	50.9	32	93.3	93.3	92	135.8	135.8	52	178.2	178.2
13	9.2	9.2	73	51.6	51.6	33	94.0	94.0	93	136.5	136.5	53	178.9	178.9
14	9.9	9.9	74	52.3	52.3	34	94.8	94.8	94	137.2	137.2	54	179.6	179.6
15	10.6	10.6	75	53.0	53.0	35	95.5	95.5	95	137.9	137.9	55	180.3	180.3
16	11.3	11.3	76	53.7	53.7	36	96.2	96.2	96	138.6	138.6	56	181.0	181.0
17	12.0	12.0	77	54.4	54.4	37	96.9	96.9	97	139.3	139.3	57	181.7	181.7
18	12.7	12.7	78	55.2	55.2	38	97.6	97.6	98	140.0	140.0	58	182.4	182.4
19	13.4	13.4	79	55.9	55.9	39	98.3	98.3	99	140.7	140.7	59	183.1	183.1
20	14.1	14.1	80	56.6	56.6	40	99.0	99.0	200	141.4	141.4	60	183.8	183.8
21	14.8	14.8	81	57.3	57.3	141	99.7	99.7	201	142.1	142.1	261	184.6	184.6
22	15.6	15.6	82	58.0	58.0	42	100.4	100.4	02	142.8	142.8	62	185.3	185.3
23	16.3	16.3	83	58.7	58.7	43	101.1	101.1	03	143.5	143.5	63	186.0	186.0
24	17.0	17.0	84	59.4	59.4	44	101.8	101.8	04	144.2	144.2	64	186.7	186.7
25	17.7	17.7	85	60.1	60.1	45	102.5	102.5	05	145.0	145.0	65	187.4	187.4
26	18.4	18.4	86	60.8	60.8	46	103.2	103.2	06	145.7	145.7	66	188.1	188.1
27	19.1	19.1	87	61.5	61.5	47	103.9	103.9	07	146.4	146.4	67	188.8	188.8
28	19.8	19.8	88	62.2	62.2	48	104.7	104.7	08	147.1	147.1	68	189.5	189.5
29	20.5	20.5	89	62.9	62.9	49	105.4	105.4	09	147.8	147.8	69	190.2	190.2
30	21.2	21.2	90	63.6	63.6	50	106.1	106.1	10	148.5	148.5	70	190.9	190.9
31	21.9	21.9	91	64.3	64.3	151	106.8	106.8	211	149.2	149.2	271	191.6	191.6
32	22.6	22.6	92	65.1	65.1	52	107.5	107.5	12	149.9	149.9	72	192.3	192.3
33	23.3	23.3	93	65.8	65.8	53	108.2	108.2	13	150.6	150.6	73	193.0	193.0
34	24.0	24.0	94	66.5	66.5	54	108.9	108.9	14	151.3	151.3	74	193.7	193.7
35	24.7	24.7	95	67.2	67.2	55	109.6	109.6	15	152.0	152.0	75	194.5	194.5
36	25.5	25.5	96	67.9	67.9	56	110.3	110.3	16	152.7	152.7	76	195.2	195.2
37	26.2	26.2	97	68.6	68.6	57	111.0	111.0	17	153.4	153.4	77	195.9	195.9
38	26.9	26.9	98	69.3	69.3	58	111.7	111.7	18	154.1	154.1	78	196.6	196.6
39	27.6	27.6	99	70.0	70.0	59	112.4	112.4	19	154.9	154.9	79	197.3	197.3
40	28.3	28.3	100	70.7	70.7	60	113.1	113.1	20	155.6	155.6	80	198.0	198.0
41	29.0	29.0	101	71.4	71.4	161	113.8	113.8	221	156.3	156.3	281	198.7	198.7
42	29.7	29.7	02	72.1	72.1	62	114.6	114.6	22	157.0	157.0	82	199.4	199.4
43	30.4	30.4	03	72.8	72.8	63	115.3	115.3	23	157.7	157.7	83	200.1	200.1
44	31.1	31.1	04	73.5	73.5	64	116.0	116.0	24	158.4	158.4	84	200.8	200.8
45	31.8	31.8	05	74.2	74.2	65	116.7	116.7	25	159.1	159.1	85	201.5	201.5
46	32.5	32.5	06	75.0	75.0	66	117.4	117.4	26	159.8	159.8	86	202.2	202.2
47	33.2	33.2	07	75.7	75.7	67	118.1	118.1	27	160.5	160.5	87	202.9	202.9
48	33.9	33.9	08	76.4	76.4	68	118.8	118.8	28	161.2	161.2	88	203.6	203.6
49	34.6	34.6	09	77.1	77.1	69	119.5	119.5	29	161.9	161.9	89	204.4	204.4
50	35.4	35.4	10	77.8	77.8	70	120.2	120.2	30	162.6	162.6	90	205.1	205.1
51	36.1	36.1	111	78.5	78.5	171	120.9	120.9	231	163.3	163.3	291	205.8	205.8
52	36.8	36.8	12	79.2	79.2	72	121.6	121.6	32	164.0	164.0	92	206.5	206.5
53	37.5	37.5	13	79.9	79.9	73	122.3	122.3	33	164.8	164.8	93	207.2	207.2
54	38.2	38.2	14	80.6	80.6	74	123.0	123.0	34	165.5	165.5	94	207.9	207.9
55	38.9	38.9	15	81.3	81.3	75	123.7	123.7	35	166.2	166.2	95	208.6	208.6
56	39.6	39.6	16	82.0	82.0	76	124.5	124.5	36	166.9	166.9	96	209.3	209.3
57	40.3	40.3	17	82.7	82.7	77	125.2	125.2	37	167.6	167.6	97	210.0	210.0
58	41.0	41.0	18	83.4	83.4	78	125.9	125.9	38	168.3	168.3	98	210.7	210.7
59	41.7	41.7	19	84.1	84.1	79	126.6	126.6	39	169.0	169.0	99	211.4	211.4
60	42.4	42.4	20	84.9	84.9	80	127.3	127.3	40	169.7	169.7	300	212.1	212.1
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

315° | 045°
225° | 135°

45°

Dist.	D. Lat.	Dep.
N.	N x Cos.	N x Sin.
Hypotenuse	Side Adj.	Side Opp.

TABLE 4

315° | 045°
225° | 135°

45° Traverse Table

Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.	Dist.	D. Lat.	Dep.
301	212.8	212.8	361	255.3	255.3	421	297.7	297.7	481	340.1	340.1	541	382.5	382.5
02	213.5	213.5	62	256.0	256.0	22	298.4	298.4	82	340.8	340.8	42	383.3	383.3
03	214.3	214.3	63	256.7	256.7	23	299.1	299.1	83	341.5	341.5	43	384.0	384.0
04	215.0	215.0	64	257.4	257.4	24	299.8	299.8	84	342.2	342.2	44	384.7	384.7
05	215.7	215.7	65	258.1	258.1	25	300.5	300.5	85	342.9	342.9	45	385.4	385.4
06	216.4	216.4	66	258.8	258.8	26	301.2	301.2	86	343.7	343.7	46	386.1	386.1
07	217.1	217.1	67	259.5	259.5	27	301.9	301.9	87	344.4	344.4	47	386.8	386.8
08	217.8	217.8	68	260.2	260.2	28	302.6	302.6	88	345.1	345.1	48	387.5	387.5
09	218.5	218.5	69	260.9	260.9	29	303.3	303.3	89	345.8	345.8	49	388.2	388.2
10	219.2	219.2	70	261.6	261.6	30	304.1	304.1	90	346.5	346.5	50	388.9	388.9
311	219.9	219.9	371	262.3	262.3	431	304.8	304.8	491	347.2	347.2	551	389.6	389.6
12	220.6	220.6	72	263.0	263.0	32	305.5	305.5	92	347.9	347.9	52	390.3	390.3
13	221.3	221.3	73	263.8	263.8	33	306.2	306.2	93	348.6	348.6	53	391.0	391.0
14	222.0	222.0	74	264.5	264.5	34	306.9	306.9	94	349.3	349.3	54	391.7	391.7
15	222.7	222.7	75	265.2	265.2	35	307.6	307.6	95	350.0	350.0	55	392.4	392.4
16	223.4	223.4	76	265.9	265.9	36	308.3	308.3	96	350.7	350.7	56	393.2	393.2
17	224.2	224.2	77	266.6	266.6	37	309.0	309.0	97	351.4	351.4	57	393.9	393.9
18	224.9	224.9	78	267.3	267.3	38	309.7	309.7	98	352.1	352.1	58	394.6	394.6
19	225.6	225.6	79	268.0	268.0	39	310.4	310.4	99	352.8	352.8	59	395.3	395.3
20	226.3	226.3	80	268.7	268.7	40	311.1	311.1	500	353.6	353.6	60	396.0	396.0
321	227.0	227.0	381	269.4	269.4	441	311.8	311.8	501	354.3	354.3	561	396.7	396.7
22	227.7	227.7	82	270.1	270.1	42	312.5	312.5	02	355.0	355.0	62	397.4	397.4
23	228.4	228.4	83	270.8	270.8	43	313.2	313.2	03	355.7	355.7	63	398.1	398.1
24	229.1	229.1	84	271.5	271.5	44	314.0	314.0	04	356.4	356.4	64	398.8	398.8
25	229.8	229.8	85	272.2	272.2	45	314.7	314.7	05	357.1	357.1	65	399.5	399.5
26	230.5	230.5	86	272.9	272.9	46	315.4	315.4	06	357.8	357.8	66	400.2	400.2
27	231.2	231.2	87	273.7	273.7	47	316.1	316.1	07	358.5	358.5	67	400.9	400.9
28	231.9	231.9	88	274.4	274.4	48	316.8	316.8	08	359.2	359.2	68	401.6	401.6
29	232.6	232.6	89	275.1	275.1	49	317.5	317.5	09	359.9	359.9	69	402.3	402.3
30	233.3	233.3	90	275.8	275.8	50	318.2	318.2	10	360.6	360.6	70	403.1	403.1
331	234.1	234.1	391	276.5	276.5	451	318.9	318.9	511	361.3	361.3	571	403.8	403.8
32	234.8	234.8	92	277.2	277.2	52	319.6	319.6	12	362.0	362.0	72	404.5	404.5
33	235.5	235.5	93	277.9	277.9	53	320.3	320.3	13	362.7	362.7	73	405.2	405.2
34	236.2	236.2	94	278.6	278.6	54	321.0	321.0	14	363.5	363.5	74	405.9	405.9
35	236.9	236.9	95	279.3	279.3	55	321.7	321.7	15	364.2	364.2	75	406.6	406.6
36	237.6	237.6	96	280.0	280.0	56	322.4	322.4	16	364.9	364.9	76	407.3	407.3
37	238.3	238.3	97	280.7	280.7	57	323.1	323.1	17	365.6	365.6	77	408.0	408.0
38	239.0	239.0	98	281.4	281.4	58	323.9	323.9	18	366.3	366.3	78	408.7	408.7
39	239.7	239.7	99	282.1	282.1	59	324.6	324.6	19	367.0	367.0	79	409.4	409.4
40	240.4	240.4	400	282.8	282.8	60	325.3	325.3	20	367.7	367.7	80	410.1	410.1
341	241.1	241.1	401	283.5	283.5	461	326.0	326.0	521	368.4	368.4	581	410.8	410.8
42	241.8	241.8	02	284.3	284.3	62	326.7	326.7	22	369.1	369.1	82	411.5	411.5
43	242.5	242.5	03	285.0	285.0	63	327.4	327.4	23	369.8	369.8	83	412.2	412.2
44	243.2	243.2	04	285.7	285.7	64	328.1	328.1	24	370.5	370.5	84	413.0	413.0
45	244.0	244.0	05	286.4	286.4	65	328.8	328.8	25	371.2	371.2	85	413.7	413.7
46	244.7	244.7	06	287.1	287.1	66	329.5	329.5	26	371.9	371.9	86	414.4	414.4
47	245.4	245.4	07	287.8	287.8	67	330.2	330.2	27	372.6	372.6	87	415.1	415.1
48	246.1	246.1	08	288.5	288.5	68	330.9	330.9	28	373.4	373.4	88	415.8	415.8
49	246.8	246.8	09	289.2	289.2	69	331.6	331.6	29	374.1	374.1	89	416.5	416.5
50	247.5	247.5	10	289.9	289.9	70	332.3	332.3	30	374.8	374.8	90	417.2	417.2
351	248.2	248.2	411	290.6	290.6	471	333.0	333.0	531	375.5	375.5	591	417.9	417.9
52	248.9	248.9	12	291.3	291.3	72	333.8	333.8	32	376.2	376.2	92	418.6	418.6
53	249.6	249.6	13	292.0	292.0	73	334.5	334.5	33	376.9	376.9	93	419.3	419.3
54	250.3	250.3	14	292.7	292.7	74	335.2	335.2	34	377.6	377.6	94	420.0	420.0
55	251.0	251.0	15	293.4	293.4	75	335.9	335.9	35	378.3	378.3	95	420.7	420.7
56	251.7	251.7	16	294.2	294.2	76	336.6	336.6	36	379.0	379.0	96	421.4	421.4
57	252.4	252.4	17	294.9	294.9	77	337.3	337.3	37	379.7	379.7	97	422.1	422.1
58	253.1	253.1	18	295.6	295.6	78	338.0	338.0	38	380.4	380.4	98	422.8	422.8
59	253.9	253.9	19	296.3	296.3	79	338.7	338.7	39	381.1	381.1	99	423.6	423.6
60	254.6	254.6	20	297.0	297.0	80	339.4	339.4	40	381.8	381.8	600	424.3	424.3
Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.	Dist.	Dep.	D. Lat.

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