

TABLE 1 Logarithms of Numbers									
1-250									
No.	Log	No.	Log	No.	Log	No.	Log	No.	Log
1	0.00000	51	1.70757	101	2.00432	151	2.17898	201	2.30320
2	0.30103	52	1.71600	102	2.00860	152	2.18184	202	2.30535
3	0.47712	53	1.72428	103	2.01284	153	2.18469	203	2.30750
4	0.60206	54	1.73239	104	2.01703	154	2.18752	204	2.30963
5	0.69897	55	1.74036	105	2.02119	155	2.19033	205	2.31175
6	0.77815	56	1.74819	106	2.02531	156	2.19312	206	2.31387
7	0.84510	57	1.75587	107	2.02938	157	2.19590	207	2.31597
8	0.90309	58	1.76343	108	2.03342	158	2.19866	208	2.31806
9	0.95424	59	1.77085	109	2.03743	159	2.20140	209	2.32015
10	1.00000	60	1.77815	110	2.04139	160	2.20412	210	2.32222
11	1.04139	61	1.78533	111	2.04532	161	2.20683	211	2.32428
12	1.07918	62	1.79239	112	2.04922	162	2.20952	212	2.32634
13	1.11394	63	1.79934	113	2.05308	163	2.21219	213	2.32838
14	1.14613	64	1.80618	114	2.05690	164	2.21484	214	2.33041
15	1.17609	65	1.81291	115	2.06070	165	2.21748	215	2.33244
16	1.20412	66	1.81954	116	2.06446	166	2.22011	216	2.33445
17	1.23045	67	1.82619	117	2.06819	167	2.22272	217	2.33646
18	1.25527	68	1.83251	118	2.07188	168	2.22531	218	2.33846
19	1.27875	69	1.83885	119	2.07555	169	2.22789	219	2.34044
20	1.30103	70	1.84510	120	2.07918	170	2.23045	220	2.34242
21	1.32222	71	1.85126	121	2.08279	171	2.23300	221	2.34439
22	1.34242	72	1.85733	122	2.08636	172	2.23553	222	2.34635
23	1.36173	73	1.86332	123	2.08991	173	2.23805	223	2.34830
24	1.38021	74	1.86923	124	2.09342	174	2.24055	224	2.35025
25	1.39794	75	1.87506	125	2.09691	175	2.24304	225	2.35218
26	1.41497	76	1.88081	126	2.10037	176	2.24551	226	2.35411
27	1.43136	77	1.88649	127	2.10380	177	2.24797	227	2.35603
28	1.44716	78	1.89209	128	2.10721	178	2.25042	228	2.35793
29	1.46240	79	1.89763	129	2.11059	179	2.25285	229	2.35984
30	1.47712	80	1.90309	130	2.11394	180	2.25527	230	2.36173
31	1.49136	81	1.90849	131	2.11727	181	2.25768	231	2.36361
32	1.50515	82	1.91381	132	2.12057	182	2.26007	232	2.36549
33	1.51851	83	1.91908	133	2.12385	183	2.26245	233	2.36736
34	1.53148	84	1.92428	134	2.12710	184	2.26482	234	2.36922
35	1.54407	85	1.92942	135	2.13033	185	2.26717	235	2.37107
36	1.55630	86	1.93450	136	2.13354	186	2.26951	236	2.37291
37	1.56820	87	1.93952	137	2.13672	187	2.27184	237	2.37475
38	1.57978	88	1.94448	138	2.13988	188	2.27416	238	2.37658
39	1.59106	89	1.94939	139	2.14301	189	2.27646	239	2.37840
40	1.60206	90	1.95424	140	2.14613	190	2.27875	240	2.38021
41	1.61278	91	1.95904	141	2.14922	191	2.28103	241	2.38202
42	1.62325	92	1.96379	142	2.15229	192	2.28330	242	2.38382
43	1.63347	93	1.96848	143	2.15534	193	2.28556	243	2.38561
44	1.64345	94	1.97313	144	2.15836	194	2.28780	244	2.38739
45	1.65321	95	1.97772	145	2.16137	195	2.29003	245	2.38917
46	1.66276	96	1.98227	146	2.16435	196	2.29226	246	2.39094
47	1.67210	97	1.98677	147	2.16732	197	2.29447	247	2.39270
48	1.68124	98	1.99123	148	2.17026	198	2.29667	248	2.39445
49	1.69020	99	1.99564	149	2.17319	199	2.29885	249	2.39620
50	1.69897	100	2.00000	150	2.17609	200	2.30103	250	2.39794

TABLE 1 Logarithms of Numbers																					
1000-1500																					
No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d	Prop. parts
100	00000	43	00043	44	00087	43	00130	43	00173	44	00217	43	00260	43	00303	43	00346	43	00389	43	44 43
101	00432	43	00475	43	00518	43	00561	43	00604	43	00647	42	00689	43	00732	43	00775	42	00817	43	1 4 4 9
102	00860	43	00903	42	00945	42	00988	42	01030	42	01072	43	01115	42	01157	42	01199	43	01242	42	2 3 13 13 17
103	01284	42	01326	42	01368	42	01410	42	01452	42	01494	42	01536	42	01578	42	01620	42	01662	41	3 4 5 22 22
104	01703	42	01745	42	01787	41	01828	42	01870	42	01912	41	01953	42	01995	41	02036	42	02078	41	4 5 6 7 6 26 26
105	02119	41	02160	42	02202	41	02243	41	02284	41	02325	41	02366	41	02407	42	02449	41	02490	41	5 6 7 31 30
106	02531	41	02572	40	02612	41	02653	41	02694	41	02735	41	02776	40	02816	41	02857	40	02898	40	6 7 8 35 34
107	02938	41	02979	40	03019	41	03060	40	03100	41	03141	40	03181	41	03222	40	03262	40	03302	40	7 8 9 40
108	03342	41	03383	40	03423	40	03463	40	03503	40	03543	40	03583	40	03623	40	03663	40	03703	40	
109	03743	39	03782	40	03822	40	03862	40	03902	39	03941	40	03981	40	04021	39	04060	40	04100	39	42 41
110	04139	40	04179	39	04218	40	04258	39	04297	39	04336	40	04376	39	04415	39	04454	39	04493	39	1 4 4 8
111	04532	39	04571	39	04610	40	04650	39	04689	38	04727	39	04766	39	04805	39	04844	39	04883	39	2 3 13 12 8
112	04922	39	04961	38	04999	39	05038	39	05077	38	05115	39	05154	38	05192	39	05231	38	05269	38	3 4 17 16
113	05308	38	05346	39	05385	38	05423	38	05461	39	05500	38	05538	38	05576	38	05614	38	05652	38	4 5 21 20
114	05690	39	05729	38	05767	38	05805	38	05843	38	05881	37	05918	38	05956	38	05994	38	06032	38	5 6 25 25
115	06070	38	06108	37	06145	38	06183	38	06221	37	06258	38	06296	37	06333	38	06371	37	06408	38	6 7 29 29
116	06446	37	06483	38	06521	37	06558	37	06595	38	06633	37	06670	37	06707	37	06744	37	06781	38	7 8 34 33
117	06819	37	06856	37	06893	37	06930	37	06967	37	07004	37	07041	37	07078	37	07115	36	07151	37	8 9 38 37
118	07188	37	07225	37	07262	36	07298	37	07335	37	07372	36	07408	37	07445	37	07482	36	07518	37	9 34 33
119	07555	36	07591	37	07628	36	07664	36	07700	37	07737	36	07773	36	07809	37	07846	36	07882	36	1 2 4 8 4 8
120	07918	36	07954	36	07990	37	08027	36	08063	36	08099	36	08135	36	08171	36	08207	36	08243	36	3 12 12 16
121	08279	35	08314	36	08350	36	08386	36	08422	36	08458	35	08493	36	08529	36	08565	35	08600	36	4 5 20 20
122	08636	36	08672	35	08707	36	08743	35	08778	36	08814	35	08849	36	08884	36	08920	35	08955	36	5 6 24 23
123	08991	35	09026	35	09061	35	09096	36	09132	35	09167	35	09202	35	09237	35	09272	35	09307	35	6 7 28 27
124	09342	35	09377	35	09412	35	09447	35	09482	35	09517	35	09552	35	09587	34	09621	35	09656	35	7 8 32 31
125	09691	35	09726	34	09760	35	09795	35	09830	34	09864	35	09899	35	09934	34	09968	35	10003	34	8 9 36 37
126	10037	35	10072	34	10106	34	10140	35	10175	34	10209	34	10243	35	10278	34	10312	34	10346	34	1 4 8 7
127	10380	35	10415	34	10449	34	10483	34	10517	34	10551	34	10585	34	10619	34	10653	34	10687	34	2 3 11 11
128	10721	34	10755	34	10789	34	10823	34	10857	33	10890	34	10924	34	10958	34	10992	33	11025	34	3 4 15 15
129	11059	34	11093	33	11126	34	11160	33	11193	34	11227	34	11261	33	11294	33	11327	34	11361	33	4 5 9 34 33
130	11394	34	11428	33	11461	33	11494	34	11528	33	11561	33	11594	34	11628	33	11661	33	11694	33	5 6 23 22
131	11727	33	11760	33	11793	33	11826	34	11860	33	11893	33	11926	33	11959	33	11992	32	12024	34	6 7 27 26
132	12057	33	12090	33	12123	33	12156	33	12189	33	12222	32	12254	33	12287	33	12320	32	12352	33	7 8 30 30
133	12385	33	12418	32	12450	33	12483	33	12516	32	12548	33	12581	32	12613	33	12646	32	12678	32	8 9 34 33
134	12710	33	12743	32	12775	33	12808	32	12840	32	12872	33	12905	32	12937	32	12969</				

TABLE 1  
Logarithms of Numbers

1500-2000

Table with columns: No., 0, d, 1, d, 2, d, 3, d, 4, d, 5, d, 6, d, 7, d, 8, d, 9, d, Prop. parts. Rows range from 150 to 200.

TABLE 1  
Logarithms of Numbers

2000-2500

Table with columns: No., 0, d, 1, d, 2, d, 3, d, 4, d, 5, d, 6, d, 7, d, 8, d, 9, d, Prop. parts. Rows range from 200 to 250.

TABLE 1																						
Logarithms of Numbers																						
2500–3000																						
No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d	Prop. parts	
250	39794	17	39811	18	39829	17	39846	17	39863	18	39881	17	39898	17	39915	18	39933	17	39950	17	18	
251	39967	18	39985	17	40002	17	40019	18	40037	17	40054	17	40071	17	40088	18	40106	17	40123	17	1	2
252	40140	17	40157	18	40175	17	40192	17	40209	17	40226	17	40243	18	40261	17	40278	17	40295	17	2	4
253	40312	17	40329	17	40346	18	40364	17	40381	17	40398	17	40415	17	40432	17	40449	17	40466	17	3	5
254	40483	17	40500	18	40518	17	40535	17	40552	17	40569	17	40586	17	40603	17	40620	17	40637	17	4	7
																					5	9
255	40654	17	40671	17	40688	17	40705	17	40722	17	40739	17	40756	17	40773	17	40790	17	40807	17	6	11
256	40824	17	40841	17	40858	17	40875	17	40892	17	40909	17	40926	17	40943	17	40960	16	40976	17	7	13
257	40993	17	41010	17	41027	17	41044	17	41061	17	41078	17	41095	16	41111	17	41128	17	41145	17	8	14
258	41162	17	41179	17	41196	16	41212	17	41229	17	41246	17	41263	17	41280	16	41296	17	41313	17	9	16
259	41330	17	41347	16	41363	17	41380	17	41397	17	41414	16	41431	17	41447	17	41464	17	41481	16		
260	41497	17	41514	17	41531	16	41547	17	41564	17	41581	16	41597	17	41614	17	41631	16	41647	17		
261	41664	17	41681	16	41697	17	41714	17	41731	16	41747	17	41764	16	41780	17	41797	17	41814	16		17
262	41830	17	41847	16	41863	17	41880	16	41896	17	41913	16	41929	17	41946	17	41963	16	41979	17	1	2
263	41996	16	42012	17	42029	16	42045	17	42062	16	42078	17	42095	16	42111	16	42127	17	42144	16	1	3
264	42160	17	42177	16	42193	17	42210	16	42226	17	42243	16	42259	16	42275	17	42292	16	42308	17	2	3
																					3	5
265	42325	16	42341	16	42357	17	42374	16	42390	16	42406	17	42423	16	42439	16	42455	17	42472	16	4	7
266	42488	16	42504	17	42521	16	42537	16	42553	17	42570	16	42586	16	42602	17	42619	16	42635	16	5	8
267	42651	16	42667	17	42684	16	42700	16	42716	16	42732	17	42749	16	42765	16	42781	16	42797	16	6	10
268	42813	17	42830	16	42846	16	42862	16	42878	16	42894	17	42911	16	42927	17	42943	16	42959	16	7	12
269	42975	16	42991	17	43008	16	43024	16	43040	16	43056	16	43072	16	43088	16	43104	16	43120	16	8	14
																					9	15
270	43136	16	43152	17	43169	16	43185	16	43201	16	43217	16	43233	16	43249	16	43265	16	43281	16		
271	43297	16	43313	16	43329	16	43345	16	43361	16	43377	16	43393	16	43409	16	43425	16	43441	16		
272	43457	16	43473	16	43489	16	43505	16	43521	16	43537	16	43553	16	43569	16	43585	16	43600	16		
273	43616	16	43632	16	43648	16	43664	16	43680	16	43696	16	43712	16	43727	16	43743	16	43759	16	1	2
274	43775	16	43791	16	43807	16	43823	15	43838	16	43854	16	43870	16	43886	16	43902	15	43917	16	2	3
																					3	5
275	43933	16	43949	16	43965	16	43981	15	43996	16	44012	16	44028	16	44044	15	44059	16	44075	16	3	4
276	44091	16	44107	15	44122	16	44138	16	44154	16	44170	15	44185	16	44201	16	44217	15	44232	16	4	6
277	44248	16	44264	15	44279	16	44295	16	44311	15	44326	16	44342	16	44358	15	44373	16	44389	15	5	8
278	44404	16	44420	16	44436	15	44451	16	44467	16	44483	15	44498	16	44514	15	44529	16	44545	15	6	10
279	44560	16	44576	16	44592	15	44607	16	44623	15	44638	16	44654	16	44669	16	44685	15	44700	16	7	11
																					8	13
280	44716	15	44731	16	44747	15	44762	16	44778	15	44793	16	44809	15	44824	16	44840	15	44855	16	9	14
281	44871	15	44886	16	44902	15	44917	15	44932	16	44948	15	44963	16	44979	15	44994	16	45010	15		
282	45025	15	45040	16	45056	15	45071	15	45086	16	45102	15	45117	16	45133	15	45148	15	45163	16		
283	45179	15	45194	15	45209	16	45225	15	45240	15	45255	16	45271	15	45286	15	45301	16	45317	15	1	2
284	45332	15	45347	15	45362	16	45378	15	45393	15	45408	15	45423	16	45439	15	45454	15	45469	15	2	3
																					3	4
285	45484	16	45500	15	45515	15	45530	15	45545	16	45561	15	45576	15	45591	15	45606	15	45621	15	4	6
286	45637	15	45652	15	45667	15	45682	15	45697	15	45712	16	45728	15	45743	15	45758	15	45773	15	5	8
287	45788	15	45803	15	45818	16	45834	15	45849	15	45864	15	45879	15	45894	15	45909	15	45924	15	6	9
288	45939	15	45954	15	45969	15	45984	16	46000	15	46015	15	46030	15	46045	15	46060	15	46075	15	7	10
289	46090	15	46105	15	46120	15	46135	15	46150	15	46165	15	46180	15	46195	15	46210	15	46225	15	8	12
																					9	14
290	46240	15	46255	15	46270	15	46285	15	46300	15	46315	15	46330	15	46345	14	46359	15	46374	15		
291	46389	15	46404	15	46419	15	46434	15	46449	15	46464	15	46479	15	46494	15	46509	14	46523	15		
292	46538	15	46553	15	46568	15	46583	15	46598	15	46613	14	46627	15	46642	15	46657	15	46672	15	1	2
293	46687	15	46702	14	46716	15	46731	15	46746	15	46761	15	46776	14	46790	15	46805	15	46820	15	2	3
294	46835	15	46850	14	46864	15	46879	15	46894	15	46909	14	46923	15	46938	15	46953	14	46967	15	3	4
																					4	6
295	46982	15	46997	15	47012	14	47026	15	47041	14	47056	14	47070	15	47085	15	47100	14	47114	15	5	7
296	47129	15	47144	15	47159	14	47173	15	47188	14	47202	15	47217	15	47232	15	47246	15	47261	15	6	8
297	47276	14	47290	15	47305	14	47319	15	47334	14	47349	14	47363	15	47378	14	47392	15	47407	15	7	9
298	47422	14	47436	15	47451	14	47465	15	47480	14	47494	15	47509	15	47524	14	47538	15	47553	14	8	10
299	47567	15	47582	14	47596	15	47611	14	47625	15	47640	14	47654	15	47669	14	47683	15	47698	14	9	11
300	47712	15	47727	14	47741	15	47756	14	47770	14	47784	15	47799	14	47813	15	47828	14	47842	15	9	13
No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d		

TABLE 1																						
Logarithms of Numbers																						
3000–3500																						
No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d	Prop. parts	
300	47712	15	47727	14	47741	15	47756	14	47770	14	47784	15	47799	14	47813	15	47828	14	47842	15		
301	47857	14	47871	14	47885	15	47900	14	47914	15	47929	14	47943	15	47958	14	47972	14	47986	15		15
302	48001	14	48015	14	48029	15	48044	14	48058	15	48073	14	48087	14	48101	15	48115	14	48130	14	1	2
303	48144	15	48159	14	48173	14	48187	15	48202	14	48216	14	48230	14	48244	15	48259	14	48273	14	2	3
304	48287	15	48302	14	48316	14	48330	14	48344	15	48359	14	48									

TABLE 1  
Logarithms of Numbers

3500-4000

Table with columns: No., 0, d, 1, d, 2, d, 3, d, 4, d, 5, d, 6, d, 7, d, 8, d, 9, d, Prop. parts. Rows range from 350 to 400.

TABLE 1  
Logarithms of Numbers

4000-4500

Table with columns: No., 0, d, 1, d, 2, d, 3, d, 4, d, 5, d, 6, d, 7, d, 8, d, 9, d, Prop. parts. Rows range from 400 to 450.

TABLE 1																						
Logarithms of Numbers																						
4500-5000																						
No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d	Prop. parts	
450	65321	10	65331	10	65341	9	65350	10	65360	9	65369	10	65379	10	65389	9	65398	10	65408	10	10	
451	65418	9	65427	10	65437	10	65447	9	65456	10	65466	9	65475	10	65485	10	65495	9	65504	10	1	1
452	65514	9	65523	10	65533	10	65543	9	65552	10	65562	9	65571	10	65581	10	65591	9	65600	10	2	2
453	65610	9	65619	10	65629	10	65639	9	65648	10	65658	9	65667	10	65677	9	65686	10	65696	10	3	3
454	65706	9	65715	10	65725	9	65734	10	65744	9	65753	10	65763	9	65772	10	65782	10	65792	9	4	4
455	65801	10	65811	9	65820	10	65830	9	65839	10	65849	9	65858	10	65868	9	65877	10	65887	9	5	5
456	65896	10	65906	9	65916	9	65925	10	65935	9	65944	10	65954	9	65963	10	65973	9	65982	10	6	6
457	65992	9	66001	10	66011	10	66020	10	66030	9	66039	10	66049	9	66058	10	66068	9	66077	10	7	7
458	66087	9	66096	10	66106	9	66115	10	66124	10	66134	9	66143	10	66153	9	66162	10	66172	9	8	8
459	66181	10	66191	9	66200	10	66210	9	66220	10	66229	9	66238	10	66247	10	66257	9	66266	10	9	9
460	66276	9	66285	10	66295	9	66304	10	66314	9	66323	10	66332	9	66342	10	66351	10	66361	9		
461	66370	10	66380	9	66389	10	66398	10	66408	9	66417	10	66427	9	66436	10	66445	10	66455	9		
462	66464	10	66474	9	66483	10	66492	10	66502	9	66511	10	66521	9	66530	10	66539	10	66549	9		
463	66558	9	66567	10	66577	9	66586	10	66596	9	66605	10	66614	10	66624	9	66633	10	66642	10		
464	66652	9	66661	10	66671	9	66680	10	66689	10	66699	9	66708	10	66717	10	66727	9	66736	10		
465	66745	10	66755	9	66764	10	66773	10	66783	9	66792	10	66801	10	66811	9	66820	10	66829	10		
466	66839	9	66848	10	66857	10	66867	9	66876	10	66885	9	66894	10	66904	9	66913	10	66922	10		
467	66932	9	66941	9	66950	10	66960	9	66969	10	66978	9	66987	10	66997	9	67006	10	67015	10		
468	67025	9	67034	9	67043	10	67052	10	67062	9	67071	10	67080	9	67089	10	67099	9	67108	10		
469	67117	10	67127	9	67136	10	67145	9	67154	10	67164	9	67173	10	67182	9	67191	10	67201	9		
470	67210	9	67219	9	67228	10	67237	10	67247	9	67256	10	67265	9	67274	10	67284	9	67293	9		
471	67302	9	67311	10	67321	9	67330	10	67339	9	67348	10	67357	10	67367	9	67376	10	67385	9		
472	67394	9	67403	10	67413	9	67422	10	67431	10	67440	9	67449	10	67459	9	67468	10	67477	10		
473	67486	9	67495	9	67504	10	67514	9	67523	10	67532	9	67541	10	67550	10	67560	9	67569	9		
474	67578	9	67587	9	67596	10	67605	9	67614	10	67624	9	67633	10	67642	9	67651	10	67660	9		
475	67669	10	67679	9	67688	10	67697	9	67706	10	67715	9	67724	10	67733	9	67742	10	67752	9		
476	67761	9	67770	10	67779	9	67788	10	67797	9	67806	10	67815	10	67825	9	67834	10	67843	10		
477	67852	9	67861	9	67870	10	67879	9	67888	10	67897	9	67906	10	67916	9	67925	10	67934	10		
478	67943	9	67952	9	67961	10	67970	9	67979	10	67988	9	67997	10	68006	9	68015	10	68024	10		
479	68034	9	68043	9	68052	10	68061	9	68070	10	68079	9	68088	10	68097	9	68106	10	68115	10		
480	68124	9	68133	9	68142	10	68151	9	68160	10	68169	9	68178	10	68187	9	68196	10	68205	10		
481	68215	9	68224	10	68233	9	68242	10	68251	10	68260	9	68269	10	68278	9	68287	10	68296	10		
482	68305	9	68314	10	68323	9	68332	10	68341	10	68350	9	68359	10	68368	9	68377	10	68386	10		
483	68395	9	68404	9	68413	10	68422	9	68431	10	68440	9	68449	10	68458	9	68467	10	68476	10		
484	68485	9	68494	9	68502	10	68511	9	68520	10	68529	9	68538	10	68547	9	68556	10	68565	9		
485	68574	9	68583	9	68592	10	68601	9	68610	10	68619	9	68628	10	68637	9	68646	10	68655	9		
486	68664	9	68673	10	68681	9	68690	10	68699	9	68708	10	68717	9	68726	10	68735	9	68744	10		
487	68753	9	68762	10	68771	9	68780	10	68789	9	68797	10	68806	9	68815	10	68824	9	68833	10		
488	68842	9	68851	9	68860	10	68869	9	68878	10	68886	9	68895	10	68904	9	68913	10	68922	10		
489	68931	9	68940	9	68949	10	68958	9	68966	10	68975	9	68984	10	68993	9	69002	10	69011	10		
490	69020	8	69028	9	69037	10	69046	9	69055	10	69064	9	69073	10	69082	9	69090	10	69099	9		
491	69108	9	69117	10	69126	9	69135	10	69144	9	69152	10	69161	9	69170	10	69179	9	69188	10		
492	69197	9	69205	9	69214	10	69223	9	69232	10	69241	9	69249	10	69258	9	69267	10	69276	10		
493	69285	9	69294	9	69302	10	69311	9	69320	10	69329	9	69338	10	69346	9	69355	10	69364	10		
494	69373	8	69381	9	69390	10	69399	9	69408	10	69417	9	69425	10	69434	9	69443	10	69452	10		
495	69461	8	69469	9	69478	9	69487	9	69496	10	69504	9	69513	10	69522	9	69531	10	69539	10		
496	69548	9	69557	9	69566	10	69574	9	69583	10	69592	9	69601	10	69609	9	69618	10	69627	10		
497	69636	9	69644	9	69653	10	69662	9	69671	10	69679	9	69688	10	69697	9	69705	10	69714	10		
498	69723	9	69732	9	69740	10	69749	9	69758	10	69767	9	69775	10	69784	9	69793	10	69801	10		
499	69810	9	69819	9	69827	10	69836	9	69845	10	69854	9	69862	10	69871	9	69880	10	69888	10		
500	69897	9	69906	8	69914	9	69923	9	69932	10	69940	9	69949	10	69958	9	69966	10	69975	10		
No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d		

TABLE 1																						
Logarithms of Numbers																						
5000-5500																						
No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d	Prop. parts	
500	69897	9	69906	8	69914	9	69923	9	69932	8	69940	9	69949	9	69958	8	69966	9	69975	9	9	
501	69984	8	69992	9	70001	9	70010	8	70018	9	70027	9	70036	8	70044	9	70053	9	70062	8	1	1
502	70070	9	70079	9	70088	8	70096	9	70105	9	70114	8	70122	9	70131	9	70140	8	70148	9	2	2
503	70157	8	70165	9	70174	8	70183	9	70191	9	70200	9	70209	8	70217	9	70226	8	70234	9	3	3
504	70243	9	70252	8	70260	9	70269	9	70278	8	70286	9	70295	8	70303	9	70312	9	70321	8	4	4
505	70329	9	70338	8	70346	9	70355	9	70364	8	70372	9	70381	8	70389	9	70398	8	70406	9	5	5
506	70415	9	70424	8	70432	9	70441	8	70449	9	70458	8	70467	9	70475	9	70484	8	70492	9	6	6
507	70501	8	70509	9	70518	8	70526	9	70535	8	70544	9	70552	8	70561	9	70569	8	70578	9	7	7
508	70586	9	70595	8	70603	9	70612	8	70621	9	70629	8	70638	9	70646	8	70655	9	70663	8	8	8
509	70673	8	70680	9	70689	8	70697	9	70706	8	70714	9	70723	8	70731	9	70740	8	70749	8	9	9
510	70757	9	70766	8	70774	9	70783	8	70791	9	70800	8	70808	9	70817	8	70825	9				

TABLE 1  
Logarithms of Numbers

5500-6000

Table with columns: No., 0 d, 1 d, 2 d, 3 d, 4 d, 5 d, 6 d, 7 d, 8 d, 9 d, Prop. parts. Rows 550-600. Includes a vertical column of numbers 1-9 on the right side of the table.

TABLE 1  
Logarithms of Numbers

6000-6500

Table with columns: No., 0 d, 1 d, 2 d, 3 d, 4 d, 5 d, 6 d, 7 d, 8 d, 9 d, Prop. parts. Rows 600-650. Includes a vertical column of numbers 1-9 on the right side of the table.

TABLE 1																						
Logarithms of Numbers																						
6500-7000																						
No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d	Prop. parts	
650	81291	7	81298	7	81305	6	81311	7	81318	7	81325	6	81331	7	81338	7	81345	6	81351	7		7
651	81358	7	81365	6	81371	7	81378	7	81385	6	81391	7	81398	7	81405	6	81411	7	81418	7	1	1
652	81425	6	81431	7	81438	7	81445	6	81451	7	81458	7	81465	6	81471	7	81478	7	81485	6	2	1
653	81491	7	81498	7	81505	6	81511	7	81518	7	81525	6	81531	7	81538	6	81544	7	81551	7	3	2
654	81558	6	81564	7	81571	7	81578	6	81584	7	81591	7	81598	6	81604	7	81611	6	81617	7	4	3
																					5	4
																					6	4
655	81624	7	81631	6	81637	7	81644	7	81651	6	81657	7	81664	7	81671	6	81677	7	81684	6	7	5
656	81690	7	81697	7	81704	6	81710	7	81717	6	81723	7	81730	7	81737	6	81743	7	81750	7	8	6
657	81757	6	81763	7	81770	6	81776	7	81783	7	81790	6	81796	7	81803	6	81809	7	81816	7	9	6
658	81823	6	81829	7	81836	6	81842	7	81849	7	81856	6	81862	7	81869	6	81875	7	81882	7		
659	81889	6	81895	7	81902	6	81908	7	81915	6	81921	7	81928	7	81935	6	81941	7	81948	6		
660	81954	7	81961	7	81968	6	81974	7	81981	6	81987	7	81994	6	82000	7	82007	7	82014	6		
661	82020	7	82027	6	82033	7	82040	6	82046	7	82053	7	82060	6	82066	7	82073	6	82079	7		
662	82086	6	82092	7	82099	6	82105	7	82112	6	82119	7	82125	7	82132	6	82138	7	82145	6		
663	82151	7	82158	6	82164	7	82171	7	82178	6	82184	7	82191	6	82197	7	82204	6	82210	7		
664	82217	6	82223	7	82230	6	82236	7	82243	6	82249	7	82256	6	82263	6	82269	7	82276	6		
665	82282	7	82289	6	82295	7	82302	6	82308	7	82315	6	82321	7	82328	6	82334	7	82341	6		
666	82347	6	82354	7	82360	6	82367	6	82373	7	82380	6	82387	6	82393	7	82400	6	82406	7		
667	82413	6	82419	7	82426	6	82432	7	82439	6	82445	7	82452	6	82458	7	82465	6	82471	7		
668	82478	6	82484	7	82491	6	82497	7	82504	6	82510	7	82517	6	82523	7	82530	6	82536	7		
669	82543	6	82549	7	82556	6	82562	7	82569	6	82575	7	82582	6	82588	7	82595	6	82601	7		
670	82607	7	82614	6	82620	7	82627	6	82633	7	82640	6	82646	7	82653	6	82659	7	82666	6		
671	82672	7	82679	6	82685	7	82692	6	82698	7	82705	6	82711	7	82718	6	82724	7	82730	7		
672	82737	6	82743	7	82750	6	82756	7	82763	6	82769	7	82776	6	82782	7	82789	6	82795	7		
673	82802	6	82808	7	82814	6	82821	7	82827	6	82834	6	82840	7	82847	6	82853	7	82860	6		
674	82866	6	82872	7	82879	6	82885	7	82892	6	82898	7	82905	6	82911	7	82918	6	82924	7		
675	82930	7	82937	6	82943	7	82950	6	82956	7	82963	6	82969	7	82975	6	82982	7	82988	6		
676	82995	6	83001	7	83008	6	83014	7	83020	6	83027	6	83033	7	83040	6	83046	7	83052	7		
677	83059	6	83065	7	83072	6	83078	7	83085	6	83091	7	83097	6	83104	6	83110	7	83117	6		
678	83123	6	83129	7	83136	6	83142	7	83149	6	83155	7	83161	6	83167	7	83174	6	83181	6		
679	83187	6	83193	7	83200	6	83206	7	83213	6	83219	7	83225	6	83232	6	83238	7	83245	6		
680	83251	6	83257	7	83264	6	83270	6	83276	7	83283	6	83289	7	83296	6	83302	7	83308	7		
681	83315	6	83321	7	83327	6	83334	6	83340	7	83347	6	83353	7	83359	6	83366	6	83372	6		
682	83378	6	83385	6	83391	7	83398	6	83404	6	83410	7	83417	6	83423	6	83429	7	83436	6		
683	83442	6	83448	7	83455	6	83461	7	83467	6	83474	6	83480	7	83487	6	83493	6	83499	7		
684	83506	6	83512	6	83518	7	83525	6	83531	6	83537	7	83544	6	83550	6	83556	7	83563	6		
685	83569	6	83575	7	83582	6	83588	6	83594	7	83601	6	83607	6	83613	7	83620	6	83626	6		
686	83632	7	83639	6	83645	6	83651	7	83658	6	83664	6	83670	7	83677	6	83683	6	83689	7		
687	83696	6	83702	6	83708	7	83715	6	83721	6	83727	7	83734	6	83740	6	83746	7	83753	6		
688	83759	6	83765	6	83771	7	83778	6	83784	6	83790	7	83797	6	83803	6	83809	7	83816	6		
689	83822	6	83828	7	83835	6	83841	6	83847	6	83853	7	83860	6	83866	6	83872	7	83879	6		
690	83885	6	83891	6	83897	7	83904	6	83910	6	83916	7	83923	6	83929	6	83935	7	83942	6		
691	83948	6	83954	6	83960	7	83967	6	83973	6	83979	6	83985	7	83992	6	83998	6	84004	7		
692	84011	6	84017	6	84023	6	84029	7	84036	6	84042	6	84048	7	84055	6	84061	6	84067	6		
693	84073	7	84080	6	84086	6	84092	6	84098	7	84105	6	84111	6	84117	6	84123	7	84130	6		
694	84136	6	84142	6	84148	7	84155	6	84161	6	84167	6	84173	7	84180	6	84186	6	84192	6		
695	84198	7	84205	6	84211	6	84217	6	84223	7	84230	6	84236	6	84242	6	84248	6	84255	6		
696	84261	6	84267	6	84273	6	84279	6	84286	6	84292	6	84298	6	84305	6	84311	6	84317	6		
697	84323	7	84330	6	84336	6	84342	6	84348	6	84354	7	84361	6	84367	6	84373	6	84379	7		
698	84386	6	84392	6	84398	6	84404	6	84410	6	84417	6	84423	6	84429	6	84435	6	84442	6		
699	84448	6	84454	6	84460	6	84466	6	84473	6	84479	6	84485	6	84491	6	84497	6	84504	6		
700	84510	6	84516	6	84522	6	84528	7	84535	6	84541	6	84547	6	84553	6	84559	7	84566	6		
No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d		

TABLE 1																						
Logarithms of Numbers																						
7000-7500																						
No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d	Prop. parts	
700	84510	6	84516	6	84522	6	84528	7	84535	6	84541	6	84547	6	84553	6	84559	7	84566	6		7
701	84572	6	84578	6	84584	6	84590	7	84597	6	84603	6	84609	6	84615	6	84621	7	84628	6	1	1
702	84634	6	84640	6	84646	6	84652	6	84658	7	84665	6	84671	6	84677	6	84683	6	84689	7	2	1
703	84696	6	84702	6	84708	6	84714	6	84720	6	84726	7	84733	6	84739	6	84745	6	84751	6	3	2
704	84757	6	84763	7	84770	6	84776	6	84782	6	84788	6	84794	6	84800	7	84807	6	84813	6	4	3
																					5	4
																					6	4
																					7	5
																					8	6
																					9	6
705	84819	6	84825	6	84831	6	84837	7	84844	6	84850	6	84856	6	84862	6	84868	6	84874	6		
706	84880	7	84887	6	84893	6	84899	6	84905	6	84911	6	84917	7	84924	6	84930	6	84936	6		
707	84942	6	84948	6	84954	6	84960	6	84967	6	84973	6	84979	6	84985	6	84991	6	84997	6		
708	85003	6	85009	7	85016	6	85022	6	85028	6	85034	6	85040	6	85046	6	85052	6	85058	6		
709	85065	6	85071	6	85077	6	85083	6	85089	6	85095											

**TABLE 1**  
Logarithms of Numbers

**7500-8000**

No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d	Prop. parts
750	87506	6	87512	6	87518	6	87523	6	87529	6	87535	6	87541	6	87547	6	87552	6	87558	6	6
751	87564	6	87570	6	87576	6	87581	6	87587	6	87593	6	87599	6	87604	6	87610	6	87616	6	1
752	87622	6	87628	6	87633	6	87639	6	87645	6	87651	6	87656	6	87662	6	87668	6	87674	6	2
753	87679	6	87685	6	87691	6	87697	6	87703	6	87708	6	87714	6	87720	6	87726	6	87731	6	3
754	87737	6	87743	6	87749	6	87754	6	87760	6	87766	6	87772	6	87777	6	87783	6	87789	6	4
755	87795	6	87800	6	87806	6	87812	6	87818	6	87823	6	87829	6	87835	6	87841	6	87846	6	5
756	87852	6	87858	6	87864	6	87869	6	87875	6	87881	6	87887	6	87892	6	87898	6	87904	6	6
757	87910	6	87915	6	87921	6	87927	6	87933	6	87938	6	87944	6	87950	6	87955	6	87961	6	7
758	87967	6	87973	6	87978	6	87984	6	87990	6	87996	6	88001	6	88007	6	88013	6	88018	6	8
759	88024	6	88030	6	88036	6	88041	6	88047	6	88053	6	88058	6	88064	6	88070	6	88076	6	9
760	88081	6	88087	6	88093	6	88098	6	88104	6	88110	6	88116	6	88121	6	88127	6	88133	6	
761	88138	6	88144	6	88150	6	88156	6	88161	6	88167	6	88173	6	88178	6	88184	6	88190	6	
762	88195	6	88201	6	88207	6	88213	6	88218	6	88224	6	88230	6	88235	6	88241	6	88247	6	
763	88252	6	88258	6	88264	6	88270	6	88275	6	88281	6	88287	6	88292	6	88298	6	88304	6	
764	88309	6	88315	6	88321	6	88326	6	88332	6	88338	6	88343	6	88349	6	88355	6	88360	6	
765	88366	6	88372	6	88377	6	88383	6	88389	6	88395	6	88400	6	88406	6	88412	6	88417	6	
766	88423	6	88429	6	88434	6	88440	6	88446	6	88451	6	88457	6	88463	6	88468	6	88474	6	
767	88480	6	88485	6	88491	6	88497	6	88502	6	88508	6	88513	6	88519	6	88525	6	88530	6	
768	88536	6	88542	6	88547	6	88553	6	88559	6	88564	6	88570	6	88576	6	88581	6	88587	6	
769	88593	6	88598	6	88604	6	88610	6	88615	6	88621	6	88627	6	88632	6	88638	6	88643	6	
770	88649	6	88655	6	88660	6	88666	6	88672	6	88677	6	88683	6	88689	6	88694	6	88700	6	
771	88705	6	88711	6	88717	6	88722	6	88728	6	88734	6	88739	6	88745	6	88750	6	88756	6	
772	88762	6	88767	6	88773	6	88779	6	88784	6	88790	6	88795	6	88801	6	88807	6	88812	6	
773	88818	6	88824	6	88829	6	88835	6	88840	6	88846	6	88852	6	88857	6	88863	6	88868	6	
774	88874	6	88880	6	88885	6	88891	6	88897	6	88902	6	88908	6	88913	6	88919	6	88925	6	
775	88930	6	88936	6	88941	6	88947	6	88953	6	88958	6	88964	6	88969	6	88975	6	88981	6	
776	88986	6	88992	6	88997	6	89003	6	89009	6	89014	6	89020	6	89025	6	89031	6	89037	6	
777	89042	6	89048	6	89053	6	89059	6	89064	6	89070	6	89076	6	89081	6	89087	6	89092	6	
778	89098	6	89104	6	89109	6	89115	6	89120	6	89126	6	89131	6	89137	6	89143	6	89148	6	
779	89154	6	89159	6	89165	6	89170	6	89176	6	89182	6	89187	6	89193	6	89198	6	89204	6	
780	89209	6	89215	6	89221	6	89226	6	89232	6	89237	6	89243	6	89248	6	89254	6	89260	6	
781	89265	6	89271	6	89276	6	89282	6	89287	6	89293	6	89298	6	89304	6	89310	6	89315	6	
782	89321	6	89326	6	89332	6	89337	6	89343	6	89348	6	89354	6	89360	6	89365	6	89371	6	
783	89376	6	89382	6	89387	6	89393	6	89398	6	89404	6	89409	6	89415	6	89421	6	89426	6	
784	89432	6	89437	6	89443	6	89448	6	89454	6	89459	6	89465	6	89470	6	89476	6	89481	6	
785	89487	6	89492	6	89498	6	89504	6	89509	6	89515	6	89520	6	89526	6	89531	6	89537	6	
786	89542	6	89548	6	89553	6	89559	6	89564	6	89570	6	89575	6	89581	6	89586	6	89592	6	
787	89597	6	89603	6	89609	6	89614	6	89620	6	89625	6	89631	6	89636	6	89642	6	89647	6	
788	89653	6	89658	6	89664	6	89669	6	89675	6	89680	6	89686	6	89691	6	89697	6	89702	6	
789	89708	6	89713	6	89719	6	89724	6	89730	6	89735	6	89741	6	89746	6	89752	6	89757	6	
790	89763	6	89768	6	89774	6	89779	6	89785	6	89790	6	89796	6	89801	6	89807	6	89812	6	
791	89818	6	89823	6	89829	6	89834	6	89840	6	89845	6	89851	6	89856	6	89862	6	89867	6	
792	89873	6	89878	6	89883	6	89889	6	89894	6	89900	6	89905	6	89911	6	89916	6	89922	6	
793	89927	6	89933	6	89938	6	89944	6	89949	6	89955	6	89960	6	89966	6	89971	6	89977	6	
794	89982	6	89988	6	89993	6	89998	6	90004	6	90009	6	90015	6	90020	6	90026	6	90031	6	
795	90037	6	90042	6	90048	6	90053	6	90059	6	90064	6	90069	6	90075	6	90080	6	90086	6	
796	90091	6	90097	6	90102	6	90108	6	90113	6	90119	6	90124	6	90129	6	90135	6	90140	6	
797	90146	6	90151	6	90157	6	90162	6	90168	6	90173	6	90179	6	90184	6	90189	6	90195	6	
798	90200	6	90206	6	90211	6	90217	6	90222	6	90227	6	90233	6	90238	6	90244	6	90249	6	
799	90255	6	90260	6	90266	6	90271	6	90276	6	90282	6	90287	6	90293	6	90298	6	90304	6	
800	90309	6	90314	6	90320	6	90325	6	90331	6	90336	6	90342	6	90347	6	90352	6	90358	6	
No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d	

**TABLE 1**  
Logarithms of Numbers

**8000-8500**

No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d	Prop. parts
800	90309	6	90314	6	90320	6	90325	6	90331	6	90336	6	90342	6	90347	6	90352	6	90358	6	6
801	90363	6	90369	6	90374	6	90380	6	90385	6	90390	6	90396	6	90401	6	90407	6	90412	6	1
802	90417	6	90423	6	90428	6	90434	6	90439	6	90445	6	90450	6	90455	6	90461	6	90466	6	2
803	90472	6	90477	6	90482	6	90488	6	90493	6	90499	6	90504	6	90509	6	90515	6	90520	6	3
804	90526	6	90531	6	90536	6	90542	6	90547	6	90553	6	90558	6	90563	6	90569	6	90574	6	4
805	90580	6	90585	6	90590	6	90596	6	90601	6	90607	6	90612	6	90617	6	90623	6	90628	6	5
806	90634	6	90639	6	90644	6	90650	6	90655	6	90660	6	90666	6	90671	6	90677	6	90682	6	6
807	90687	6	90693	6	90698	6	90703	6	90709	6	90714	6	90720	6	90725	6	90730	6	90736	6	7
808	90741	6	90747	6	90752	6	90757	6	90763	6	90768	6	90773	6	90779	6	90784	6	90789	6	8
809	90795	6	90800	6	90806	6	90811	6	90816	6	90822	6	90827	6	90832	6	90838	6	90843	6	9
810	90849	6	90854	6	90859	6	90865	6	90870	6	90875	6	90881	6	90886	6	90891	6	90897	6	
811	90902	6	90907	6	90913	6	90918	6	90924	6	90929	6	90934	6	90940	6	90945	6	90950	6	
812	90956	6	90961	6	90966	6	90972	6	90977	6	90982	6	90988	6	90993	6	90998	6	91004	6	
813	91009	6	91014	6	91020	6	91025	6	91030	6	91036	6	91041	6	91046	6	91052	6	91057	6	
814	91062	6	91068	6	91073	6	91078														



TABLE 1																						
Logarithms of Numbers																						
8500-9000																						
No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d	Prop. parts	
850	92942	5	92947	5	92952	5	92957	5	92962	5	92967	5	92973	5	92978	5	92983	5	92988	5		6
851	92993	5	92998	5	93003	5	93008	5	93013	5	93018	5	93024	5	93029	5	93034	5	93039	5	1	1
852	93044	5	93049	5	93054	5	93059	5	93064	5	93069	5	93075	5	93080	5	93085	5	93090	5	2	1
853	93095	5	93100	5	93105	5	93110	5	93115	5	93120	5	93125	5	93131	5	93136	5	93141	5	3	2
854	93146	5	93151	5	93156	5	93161	5	93166	5	93171	5	93176	5	93181	5	93186	5	93192	5	4	2
																					5	3
855	93197	5	93202	5	93207	5	93212	5	93217	5	93222	5	93227	5	93232	5	93237	5	93242	5	6	4
856	93247	5	93252	5	93257	5	93262	5	93267	5	93272	5	93277	5	93282	5	93287	5	93292	5	7	4
857	93298	5	93303	5	93308	5	93313	5	93318	5	93323	5	93328	5	93333	5	93338	5	93343	5	8	5
858	93349	5	93354	5	93359	5	93364	5	93369	5	93374	5	93379	5	93384	5	93389	5	93394	5	9	5
859	93399	5	93404	5	93409	5	93414	5	93419	5	93424	5	93429	5	93434	5	93439	5	93444	5		
860	93450	5	93455	5	93460	5	93465	5	93470	5	93475	5	93480	5	93485	5	93490	5	93495	5		
861	93500	5	93505	5	93510	5	93515	5	93520	5	93525	5	93530	5	93535	5	93540	5	93545	5		
862	93551	5	93556	5	93561	5	93566	5	93571	5	93576	5	93581	5	93586	5	93591	5	93596	5		
863	93601	5	93606	5	93611	5	93616	5	93621	5	93626	5	93631	5	93636	5	93641	5	93646	5		
864	93651	5	93656	5	93661	5	93666	5	93671	5	93676	5	93681	5	93686	5	93691	5	93696	5		
865	93702	5	93707	5	93712	5	93717	5	93722	5	93727	5	93732	5	93737	5	93742	5	93747	5		
866	93752	5	93757	5	93762	5	93767	5	93772	5	93777	5	93782	5	93787	5	93792	5	93797	5		
867	93802	5	93807	5	93812	5	93817	5	93822	5	93827	5	93832	5	93837	5	93842	5	93847	5		
868	93852	5	93857	5	93862	5	93867	5	93872	5	93877	5	93882	5	93887	5	93892	5	93897	5		
869	93902	5	93907	5	93912	5	93917	5	93922	5	93927	5	93932	5	93937	5	93942	5	93947	5		
870	93952	5	93957	5	93962	5	93967	5	93972	5	93977	5	93982	5	93987	5	93992	5	93997	5		
871	94002	5	94007	5	94012	5	94017	5	94022	5	94027	5	94032	5	94037	5	94042	5	94047	5		
872	94052	5	94057	5	94062	5	94067	5	94072	5	94077	5	94082	5	94086	5	94091	5	94096	5		
873	94101	5	94106	5	94111	5	94116	5	94121	5	94126	5	94131	5	94136	5	94141	5	94146	5		
874	94151	5	94156	5	94161	5	94166	5	94171	5	94176	5	94181	5	94186	5	94191	5	94196	5		
																					1	5
																					2	0
875	94201	5	94206	5	94211	5	94216	5	94221	5	94226	5	94231	5	94236	5	94241	5	94245	5	3	4
876	94250	5	94255	5	94260	5	94265	5	94270	5	94275	5	94280	5	94285	5	94290	5	94295	5	4	2
877	94300	5	94305	5	94310	5	94315	5	94320	5	94325	5	94330	5	94335	5	94340	5	94345	5	5	2
878	94349	5	94354	5	94359	5	94364	5	94369	5	94374	5	94379	5	94384	5	94389	5	94394	5	6	3
879	94399	5	94404	5	94409	5	94414	5	94419	5	94424	5	94429	5	94433	5	94438	5	94443	5	7	4
																					8	4
																					9	4
880	94448	5	94453	5	94458	5	94463	5	94468	5	94473	5	94478	5	94483	5	94488	5	94493	5		
881	94498	5	94503	5	94507	5	94512	5	94517	5	94522	5	94527	5	94532	5	94537	5	94542	5		
882	94547	5	94552	5	94557	5	94562	5	94567	5	94571	5	94576	5	94581	5	94586	5	94591	5		
883	94596	5	94601	5	94606	5	94611	5	94616	5	94621	5	94626	5	94630	5	94635	5	94640	5		
884	94645	5	94650	5	94655	5	94660	5	94665	5	94670	5	94675	5	94680	5	94685	5	94689	5		
885	94694	5	94699	5	94704	5	94709	5	94714	5	94719	5	94724	5	94729	5	94734	5	94738	5		
886	94743	5	94748	5	94753	5	94758	5	94763	5	94768	5	94773	5	94778	5	94783	5	94787	5		
887	94792	5	94797	5	94802	5	94807	5	94812	5	94817	5	94822	5	94827	5	94832	5	94836	5		
888	94841	5	94846	5	94851	5	94856	5	94861	5	94866	5	94871	5	94876	5	94880	5	94885	5		
889	94890	5	94895	5	94900	5	94905	5	94910	5	94915	5	94919	5	94924	5	94929	5	94934	5		
890	94939	5	94944	5	94949	5	94954	5	94959	5	94963	5	94968	5	94973	5	94978	5	94983	5		
891	94988	5	94993	5	94998	5	95002	5	95007	5	95012	5	95017	5	95022	5	95027	5	95032	5		
892	95036	5	95041	5	95046	5	95051	5	95056	5	95061	5	95066	5	95071	5	95075	5	95080	5		
893	95085	5	95090	5	95095	5	95100	5	95105	5	95109	5	95114	5	95119	5	95124	5	95129	5		
894	95134	5	95139	5	95143	5	95148	5	95153	5	95158	5	95163	5	95168	5	95173	5	95177	5		
																					1	0
																					2	1
																					3	1
895	95182	5	95187	5	95192	5	95197	5	95202	5	95207	5	95211	5	95216	5	95221	5	95226	5	4	2
896	95231	5	95236	5	95240	5	95245	5	95250	5	95255	5	95260	5	95265	5	95270	5	95274	5	5	2
897	95279	5	95284	5	95289	5	95294	5	95299	5	95303	5	95308	5	95313	5	95318	5	95323	5	6	2
898	95328	5	95333	5	95337	5	95342	5	95347	5	95352	5	95357	5	95361	5	95366	5	95371	5	7	2
899	95376	5	95381	5	95386	5	95390	5	95395	5	95400	5	95405	5	95410	5	95415	5	95419	5	8	3
																					9	3
900	95424	5	95429	5	95434	5	95439	5	95444	5	95448	5	95453	5	95458	5	95463	5	95468	5		4
No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d		

TABLE 1																						
Logarithms of Numbers																						
9000-9500																						
No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d	Prop. parts	
900	95424	5	95429	5	95434	5	95439	5	95444	5	95448	5	95453	5	95458	5	95463	5	95468	5		5
901	95472	5	95477	5	95482	5	95487	5	95492	5	95497	5	95501	5	95506	5	95511	5	95516	5	1	0
902	95521	4	95525	5	95530	5	95535	5	95540	5	95545	5	95550	4	95554	5	95559	5	95564	5	2	1
903	95569	5	95574	4	95578	5	95583	5	95588	5	95593	5	95598	4	95602	5	95607	5	95612	5	3	2
904	95617	5	95622	4	95626	5	95631	5	95636	5	95641	5	95646	4	95650	5	95655	5	95660	5	4	2
																					5	2
905	95665	5	95670	4	95674	5	95679	5	95684	5	95689	5	95694	4	95698	5	95703	5	95708	5	6	3
906	95713	5	95718	4	95722	5	95727	5	95732	5	95737	5	95742	4	95746	5	95751	5	95756	5	7	4
907																						

TABLE 1																						
Logarithms of Numbers																						
9500-10000																						
No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d	Prop. parts	
950	97772	5	97777	5	97782	4	97786	5	97791	4	97795	5	97800	4	97804	5	97809	4	97813	5		5
951	97818	5	97823	4	97827	5	97832	4	97836	5	97841	4	97845	5	97850	4	97855	5	97859	4	1	0
952	97864	4	97868	5	97873	4	97877	5	97882	4	97886	5	97891	4	97896	5	97900	4	97905	5	2	1
953	97909	5	97914	4	97918	5	97923	4	97928	5	97932	4	97937	5	97941	4	97946	5	97950	4	3	2
954	97955	4	97959	5	97964	4	97968	5	97973	4	97978	5	97982	4	97987	5	97991	4	97996	5	4	2
																					5	2
																					6	2
955	98000	5	98005	4	98009	5	98014	4	98019	5	98023	4	98028	5	98032	4	98037	5	98041	4	5	3
956	98046	4	98050	5	98055	4	98059	5	98064	4	98068	5	98073	4	98078	5	98082	4	98087	5	6	3
957	98091	5	98096	4	98100	5	98105	4	98109	5	98114	4	98118	5	98123	4	98127	5	98132	4	7	4
958	98137	4	98141	5	98146	4	98150	5	98155	4	98159	5	98164	4	98168	5	98173	4	98177	5	8	4
959	98182	4	98186	5	98191	4	98195	5	98200	4	98204	5	98209	4	98214	5	98218	4	98223	5	9	4
960	98227	5	98232	4	98236	5	98241	4	98245	5	98250	4	98254	5	98259	4	98263	5	98268	4		
961	98272	5	98277	4	98281	5	98286	4	98290	5	98295	4	98299	5	98304	4	98308	5	98313	5		
962	98318	4	98322	5	98327	4	98331	5	98336	4	98340	5	98345	4	98349	5	98354	4	98358	5		
963	98363	4	98367	5	98372	4	98376	5	98381	4	98385	5	98390	4	98394	5	98399	4	98403	5		
964	98408	4	98412	5	98417	4	98421	5	98426	4	98430	5	98435	4	98439	5	98444	4	98448	5		
965	98453	4	98457	5	98462	4	98466	5	98471	4	98475	5	98480	4	98484	5	98489	4	98493	5		
966	98498	4	98502	5	98507	4	98511	5	98516	4	98520	5	98525	4	98529	5	98534	4	98538	5		
967	98543	4	98547	5	98552	4	98556	5	98561	4	98565	5	98570	4	98574	5	98579	4	98583	5		
968	98588	4	98592	5	98597	4	98601	5	98605	4	98610	5	98614	4	98619	5	98623	4	98628	5		
969	98632	5	98637	4	98641	5	98646	4	98650	5	98655	4	98659	5	98664	4	98668	5	98673	4		
970	98677	5	98682	4	98686	5	98691	4	98695	5	98700	4	98704	5	98709	4	98713	5	98717	5		
971	98722	4	98726	5	98731	4	98735	5	98740	4	98744	5	98749	4	98753	5	98758	4	98762	5		
972	98767	4	98771	5	98776	4	98780	5	98784	4	98789	5	98793	4	98798	5	98802	4	98807	5		
973	98811	5	98816	4	98820	5	98825	4	98829	5	98834	4	98838	5	98843	4	98847	5	98851	5		
974	98856	4	98860	5	98865	4	98869	5	98874	4	98878	5	98883	4	98887	5	98892	4	98896	5		
975	98900	5	98905	4	98909	5	98914	4	98918	5	98923	4	98927	5	98932	4	98936	5	98941	4		
976	98945	4	98949	5	98954	4	98958	5	98963	4	98967	5	98972	4	98976	5	98981	4	98985	5		
977	98989	5	98994	4	98998	5	99003	4	99007	5	99012	4	99016	5	99021	4	99025	5	99029	4		
978	99034	4	99038	5	99043	4	99047	5	99052	4	99056	5	99061	4	99065	5	99069	4	99074	5		
979	99078	5	99083	4	99087	5	99092	4	99096	5	99100	4	99105	5	99109	4	99114	5	99118	5		
980	99123	4	99127	5	99131	4	99136	5	99140	4	99145	5	99149	4	99154	5	99158	4	99162	5		
981	99167	4	99171	5	99176	4	99180	5	99185	4	99189	5	99193	4	99198	5	99202	4	99207	5		
982	99211	5	99216	4	99220	5	99224	4	99229	5	99233	4	99238	5	99242	4	99247	5	99251	4		
983	99255	5	99260	4	99264	5	99269	4	99273	5	99277	4	99282	5	99286	4	99291	5	99295	5		
984	99300	4	99304	5	99308	4	99313	5	99317	4	99322	5	99326	4	99330	5	99335	4	99339	5		
985	99344	4	99348	5	99352	4	99357	5	99361	4	99366	5	99370	4	99374	5	99379	4	99383	5		
986	99388	4	99392	5	99396	4	99401	5	99405	4	99410	5	99414	4	99419	5	99423	4	99427	5		
987	99432	4	99436	5	99441	4	99445	5	99449	4	99454	5	99458	4	99463	5	99467	4	99471	5		
988	99476	4	99480	5	99484	4	99489	5	99493	4	99498	5	99502	4	99506	5	99511	4	99515	5		
989	99520	4	99524	5	99528	4	99533	5	99537	4	99542	5	99546	4	99550	5	99555	4	99559	5		
990	99564	4	99568	5	99572	4	99577	5	99581	4	99585	5	99590	4	99594	5	99599	4	99603	5		
991	99607	5	99612	4	99616	5	99621	4	99625	5	99629	4	99634	5	99638	4	99642	5	99647	4		
992	99651	5	99656	4	99660	5	99664	4	99669	5	99673	4	99677	5	99682	4	99686	5	99691	4		
993	99695	4	99699	5	99704	4	99708	5	99712	4	99717	5	99721	4	99726	5	99730	4	99734	5		
994	99739	4	99743	5	99747	4	99752	5	99756	4	99760	5	99765	4	99769	5	99774	4	99778	5	1	0
																					2	1
																					3	1
995	99782	5	99787	4	99791	5	99795	4	99800	5	99804	4	99808	5	99813	4	99817	5	99822	4	4	2
996	99826	4	99830	5	99835	4	99839	5	99843	4	99848	5	99852	4	99856	5	99861	4	99865	5	5	2
997	99870	4	99874	5	99878	4	99883	5	99887	4	99891	5	99896	4	99900	5	99904	4	99909	5	4	2
998	99913	4	99917	5	99922	4	99926	5	99930	4	99935	5	99939	4	99944	5	99948	4	99952	5	6	2
999	99957	4	99961	5	99965	4	99970	5	99974	4	99978	5	99983	4	99987	5	99991	4	99996	5	7	3
																					8	3
1000	00000	4	00004	5	00009	4	00013	5	00017	4	00022	5	00026	4	00030	5	00035	4	00039	5	9	4
No.	0	d	1	d	2	d	3	d	4	d	5	d	6	d	7	d	8	d	9	d		

TABLE 2 Natural Trigonometric Functions													
0°→		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	← 179°	
↓	sin											↑	↑
0	0.00000		∞		0.00000		∞		1.00000		0	60	
1	.00029	29	3437.75	—	.00029	29	3437.75	—	.00000	0	.00000	0	59
2	.00058	29	1718.87	1718.88	.00058	29	1718.87	1718.88	.00000	0	.00000	0	58
3	.00087	29	1145.92	572.958	.00087	29	1145.92	572.958	.00000	0	.00000	0	57
4	.00116	29	859.437	286.479	.00116	29	859.436	286.479	.00000	0	.00000	0	56
5	.00145	30	687.550	171.887	.00145	30	687.549	171.887	1.00000	0	1.00000	0	55
6	.00175	30	572.958	114.592	.00175	30	572.957	114.592	.00000	0	.00000	0	54
7	.00204	29	491.107	81.851	.00204	29	491.106	81.851	.00000	0	.00000	0	53
8	.00233	29	429.719	61.388	.00233	29	429.718	61.388	.00000	0	.00000	0	52
9	.00262	29	381.972	47.446	.00262	29	381.971	47.447	.00000	0	.00000	0	51
10	.00291	29	343.775	38.197	.00291	29	343.774	38.197	1.00000	0	1.00000	0	50
11	.00320	29	312.523	31.252	.00320	29	312.521	31.252	.00001	1	.99999	1	49
12	.00349	29	286.479	26.043	.00349	29	286.478	26.044	.00001	0	.99999	0	48
13	.00378	29	264.443	22.037	.00378	29	264.441	22.037	.00001	0	.99999	0	47
14	.00407	29	245.554	18.889	.00407	29	245.552	18.889	.00001	0	.99999	0	46
15	.00436	29	229.184	16.370	.00436	29	229.182	16.370	1.00001	0	0.99999	0	45
16	.00465	30	214.860	14.324	.00465	30	214.858	14.324	.00001	0	.99999	0	44
17	.00495	30	202.221	12.639	.00495	30	202.219	12.639	.00001	0	.99999	0	43
18	.00524	29	190.987	11.234	.00524	29	190.984	11.235	.00001	0	.99999	0	42
19	.00553	29	180.935	10.052	.00553	29	180.932	10.052	.00002	1	.99998	1	41
20	.00582	29	171.888	9.047	.00582	29	171.885	9.047	1.00002	0	0.99998	0	40
21	.00611	29	163.703	8.185	.00611	29	163.700	8.185	.00002	0	.99998	0	39
22	.00640	29	156.262	7.441	.00640	29	156.259	7.441	.00002	0	.99998	0	38
23	.00669	29	149.468	6.794	.00669	29	149.465	6.794	.00002	0	.99998	0	37
24	.00698	29	143.241	6.228	.00698	29	143.237	6.228	.00002	0	.99998	0	36
25	.00727	29	137.511	5.730	.00727	29	137.507	5.730	1.00003	1	0.99997	1	35
26	.00756	29	132.222	5.289	.00756	29	132.219	5.289	.00003	0	.99997	0	34
27	.00785	29	127.325	4.897	.00785	29	127.321	4.897	.00003	0	.99997	0	33
28	.00814	29	122.778	4.547	.00815	30	122.774	4.547	.00003	0	.99997	0	32
29	.00844	30	118.544	4.234	.00844	30	118.540	4.234	.00004	1	.99996	1	31
30	.00873	29	114.593	3.951	.00873	29	114.589	3.952	1.00004	0	0.99996	0	30
31	.00902	29	110.897	3.696	.00902	29	110.892	3.697	.00004	0	.99996	0	29
32	.00931	29	107.431	3.465	.00931	29	107.426	3.466	.00004	0	.99996	0	28
33	.00960	29	104.176	3.255	.00960	29	104.171	3.256	.00005	1	.99995	1	27
34	.00989	29	101.112	3.064	.00989	29	101.107	3.064	.00005	0	.99995	0	26
35	.01018	29	98.2230	2.8888	.01018	29	98.2179	2.8890	1.00005	0	0.99995	0	25
36	.01047	29	95.4947	2.7283	.01047	29	95.4895	2.7285	.00005	0	.99995	0	24
37	.01076	29	92.9139	2.5808	.01076	29	92.9085	2.5810	.00006	1	.99994	1	23
38	.01105	29	90.4689	2.4450	.01105	29	90.4633	2.4452	.00006	0	.99994	0	22
39	.01134	29	88.1492	2.3196	.01135	30	88.1436	2.3198	.00006	0	.99994	0	21
40	.01164	30	85.9456	2.2036	.01164	29	85.9398	2.2038	1.00007	1	0.99993	1	20
41	.01193	29	83.8495	2.0961	.01193	29	83.8435	2.0963	.00007	0	.99993	0	19
42	.01222	29	81.8531	1.9963	.01222	29	81.8470	1.9965	.00007	0	.99993	0	18
43	.01251	29	79.9497	1.9035	.01251	29	79.9434	1.9036	.00008	1	.99992	1	17
44	.01280	29	78.1327	1.8169	.01280	29	78.1263	1.8171	.00008	0	.99992	0	16
45	.01309	29	76.3966	1.7362	.01309	29	76.3900	1.7363	1.00009	1	0.99991	1	15
46	.01338	29	74.7359	1.6607	.01338	29	74.7292	1.6608	.00009	0	.99991	0	14
47	.01367	29	73.1458	1.5900	.01367	29	73.1390	1.5902	.00009	1	.99991	1	13
48	.01396	29	71.6221	1.5238	.01396	29	71.6151	1.5239	.00010	1	.99990	1	12
49	.01425	29	70.1605	1.4616	.01425	29	70.1533	1.4617	.00010	0	.99990	0	11
50	.01454	29	68.7574	1.4031	.01455	30	68.7501	1.4033	1.00011	1	0.99989	1	10
51	.01483	29	67.4093	1.3481	.01484	29	67.4019	1.3482	.00011	0	.99989	0	9
52	.01513	30	66.1130	1.2962	.01513	29	66.1055	1.2964	.00011	0	.99989	0	8
53	.01542	29	64.8657	1.2473	.01542	29	64.8580	1.2475	.00012	1	.99988	1	7
54	.01571	29	63.6646	1.2011	.01571	29	63.6567	1.2013	.00012	0	.99988	0	6
55	.01600	29	62.5072	1.1574	.01600	29	62.4992	1.1576	1.00013	1	0.99987	1	5
56	.01629	29	61.3911	1.1161	.01629	29	61.3829	1.1162	.00013	0	.99987	0	4
57	.01658	29	60.3141	1.0769	.01658	29	60.3058	1.0771	.00014	1	.99986	1	3
58	.01687	29	59.2743	1.0398	.01687	29	59.2659	1.0399	.00014	0	.99986	0	2
59	.01716	29	58.2698	1.0046	.01716	29	58.2612	1.0047	.00015	1	.99985	1	1
60	.01745	29	57.2987	0.9711	.01746	30	57.2900	0.9712	1.00015	0	0.99985	0	0
↑	90°→	Diff. 1'	sec	Diff. 1'	cot	Diff. 1'	tan	Diff. 1'	csc	Diff. 1'	sin	Diff. 1'←	89°

TABLE 2 Natural Trigonometric Functions													
1°→		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	← 178°	
↓	sin											↑	↑
0	0.01745		57.2987		0.01746		57.2900		1.00015		0.99985	1	60
1	.01774	29	56.3595	9392	.01775	29	56.3506	9394	.00016	1	.99984	1	59
2	.01803	29	55.4505	9089	.01804	29	55.4415	9091	.00017	0	.99983	0	58
3	.01832	29	54.5505	8801	.01833	29	54.5415	8802	.00017	0	.99982	0	57
4	.01862	30	53.7179	8526	.01862	29	53.7086	8527	.00017	0	.99981	0	56
5	.01891	29	52.8916	8263	.01891	29	52.8821	8265	1.00018	1	0.99982	1	55
6	.01920	29	52.0903	8013	.01920	29	52.0807	8014	.00018	0	.99982	0	54
7	.01949	29	51.3129	7774	.01949	29	51.3032	7775	.00019	1	.99981	1	53
8	.01978	29	50.5584	7545	.01978	29	50.5485	7547	.00020	1	.99980	1	52
9	.02007	29	49.8258	7326	.02007	29	49.8157	7328	.00020	0	.99980	0	51
10	.02036	29	49.1141	7117	.02036	29	49.1039	7118	1.00021	1	0.99979	1	50
11	.02065	29	48.4224	6917	.02066	30	48.4121	6918	.00021	0	.99979	0	49
12	.02094	29	47.7500	6724	.02095	29	47.7395	6726	.00022	1	.99978	1	48
13	.02123	29	47.0960	6540	.02124	29	47.0853	6542	.00023	1	.99977	1	47
14	.02152	29	46.4596	6363	.02153	29	46.4489	6365	.00023	0	.99977	0	46
15	.02181	29	45.8403	6194	.02182	29	45.8294	6195	1.00024	1	0.99976	1	45
16	.02211	30	45.2372	6031	.02211	29	45.2261	6032	.00024	0	.99976	0	44
17	.02240	29	44.6498	5874	.02240	29	44.6386	5875	.00025	1	.99975	1	43
18	.02269	29	44.0775	5723	.02269	29	44.0661	5725	.00026	1	.99974	1	42
19	.02298	29	43.5196	5578	.02298	29	43.5081	5580	.00026	0	.99974	0	41
20	.02327	29	42.9757	5439	.02328	30	42.9641	5440	1.00027	1	0.99973	1	40
21	.02356	29	42.4452	5305	.02357	29	42.4335	5306	.00028	1	.99972	1	39
22	.02385	29	41.9277	5175	.02386	29	41.9158	5177	.00028	0	.99972	0	38
23	.02414	29	41.4227	5051	.02415	29	41.4106	5052	.00029	1	.99971	1	37
24	.02443	29	40.9296	4930	.02444	29	40.9174	4932	.00030	1	.99970	1	36
25	.02472	29	40.4482	4814	.02473	29	40.4358	4816	1.00031	1	0.99969	1	35
26	.02501	29	39.9780	4702	.02502	29	39.9655	4704	.00031	0	.99969	0	34
27	.02530	29	39.5185	4594	.02531	29	39.5059	4596	.00032	1	.99968	1	33
28	.02560	30	39.0696	4490	.02560	29	39.0568	4491	.00033	1	.99967	1	32
29	.02589	29	38.6307	4389	.02589	29	38.6177						

TABLE 2  
Natural Trigonometric Functions

Table with columns for angle (2° to 92°), sin, Diff. 1', csc, Diff. 1', tan, Diff. 1', cot, Diff. 1', sec, Diff. 1', cos, Diff. 1', and angle (← 177° to 87°). Rows 0-60.

TABLE 2  
Natural Trigonometric Functions

Table with columns for angle (3° to 93°), sin, Diff. 1', csc, Diff. 1', tan, Diff. 1', cot, Diff. 1', sec, Diff. 1', cos, Diff. 1', and angle (← 176° to 86°). Rows 0-60.

TABLE 2 Natural Trigonometric Functions													
4° →		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	← 175°	
↓	sin											↑	↓
0	0.06976		14.3356		0.06993		14.3007		1.00244		0.99756		60
1	.07005	29	.2762	594	.07022	29	.2411	595	.00246	2	.99754	2	59
2	.07034	29	.2173	589	.07051	29	.1821	590	.00248	2	.99752	2	58
3	.07063	29	.1589	584	.07080	29	.1235	586	.00250	2	.99750	2	57
4	.07092	29	.1010	579	.07110	30	.0655	581	.00252	2	.99748	2	56
5	.07121	29	14.0435	575	0.07139	29	14.0079	576	1.00254	3	0.99746	2	55
6	.07150	29	13.9865	570	.07168	29	13.9507	571	.00257	3	.99744	2	54
7	.07179	29	.9300	565	.07197	29	.8940	567	.00259	2	.99742	2	53
8	.07208	29	.8739	561	.07227	30	.8378	562	.00261	2	.99740	2	52
9	.07237	29	.8183	556	.07256	29	.7821	558	.00263	2	.99738	2	51
10	0.07266	29	13.7631	552	0.07285	29	13.7267	553	1.00265	2	0.99736	2	50
11	.07295	29	.7084	547	.07314	30	.6719	549	.00267	2	.99734	3	49
12	.07324	29	.6541	543	.07344	30	.6174	544	.00269	2	.99731	3	48
13	.07353	29	.6002	539	.07373	29	.5634	540	.00271	2	.99729	2	47
14	.07382	29	.5468	534	.07402	29	.5098	536	.00274	3	.99727	2	46
15	0.07411	29	13.4937	530	0.07431	29	13.4566	532	1.00276	2	0.99725	2	45
16	.07440	29	.4411	526	.07461	30	.4039	528	.00278	2	.99723	2	44
17	.07469	29	.3889	522	.07490	29	.3515	523	.00280	2	.99721	2	43
18	.07498	29	.3371	518	.07519	29	.2996	519	.00282	2	.99719	2	42
19	.07527	29	.2857	514	.07548	29	.2480	515	.00284	2	.99717	3	41
20	0.07556	29	13.2347	510	0.07578	30	13.1969	511	1.00287	3	0.99714	2	40
21	.07585	29	.1841	506	.07607	29	.1461	508	.00289	2	.99712	2	39
22	.07614	29	.1339	502	.07636	29	.0958	504	.00291	2	.99710	2	38
23	.07643	29	.0840	498	.07665	30	13.0458	500	.00293	3	.99708	2	37
24	.07672	29	13.0346	495	.07695	30	12.9962	496	.00296	3	.99705	3	36
25	0.07701	29	12.9855	491	0.07724	29	12.9469	492	1.00298	2	0.99703	2	35
26	.07730	29	.9368	487	.07753	29	.8981	489	.00300	2	.99701	2	34
27	.07759	29	.8844	484	.07782	29	.8496	485	.00302	2	.99699	2	33
28	.07788	29	.8404	480	.07812	30	.8014	481	.00305	3	.99696	3	32
29	.07817	29	.7928	476	.07841	29	.7536	478	.00307	2	.99694	2	31
30	0.07846	29	12.7455	473	0.07870	29	12.7062	474	1.00309	2	0.99692	2	30
31	.07875	29	.6986	469	.07899	30	.6591	471	.00312	3	.99689	3	29
32	.07904	29	.6520	466	.07929	30	.6124	467	.00314	2	.99687	2	28
33	.07933	29	.6057	462	.07958	29	.5660	464	.00316	2	.99685	2	27
34	.07962	29	.5598	459	.07987	29	.5199	461	.00318	2	.99683	2	26
35	0.07991	29	12.5142	456	0.08017	30	12.4742	457	1.00321	3	0.99680	3	25
36	.08020	29	.4690	452	.08046	29	.4288	454	.00323	2	.99678	2	24
37	.08049	29	.4241	449	.08075	29	.3838	451	.00326	3	.99676	2	23
38	.08078	29	.3795	446	.08104	29	.3390	447	.00328	3	.99673	3	22
39	.08107	29	.3352	443	.08134	30	.2946	444	.00330	2	.99671	2	21
40	0.08136	29	12.2913	440	0.08163	29	12.2505	441	1.00333	3	0.99668	3	20
41	.08165	29	.2476	436	.08192	29	.2067	438	.00335	2	.99666	2	19
42	.08194	29	.2043	433	.08221	29	.1632	435	.00337	2	.99664	2	18
43	.08223	29	.1612	430	.08251	30	.1201	432	.00340	3	.99661	3	17
44	.08252	29	.1185	427	.08280	29	.0772	429	.00342	2	.99659	2	16
45	0.08281	29	12.0761	424	0.08309	29	12.0346	426	1.00345	3	0.99657	2	15
46	.08310	29	12.0340	421	.08339	30	11.9923	423	.00347	2	.99654	3	14
47	.08339	29	.9506	418	.08368	29	.9504	420	.00350	2	.99652	2	13
48	.08368	29	.9066	415	.08397	29	.9087	417	.00352	2	.99649	3	12
49	.08397	29	.8639	413	.08427	30	.8673	414	.00354	2	.99647	2	11
50	0.08426	29	11.8684	410	0.08456	29	11.8262	411	1.00357	3	0.99644	3	10
51	.08455	29	.8277	407	.08485	29	.7853	408	.00359	2	.99642	2	9
52	.08484	29	.7873	404	.08514	30	.7448	406	.00362	3	.99639	3	8
53	.08513	29	.7471	401	.08544	29	.7045	403	.00364	2	.99637	2	7
54	.08542	29	.7073	399	.08573	29	.6645	400	.00367	3	.99635	2	6
55	0.08571	29	11.6677	396	0.08602	30	11.6248	397	1.00369	3	0.99632	3	5
56	.08600	29	.6284	393	.08632	30	.5853	395	.00372	3	.99630	2	4
57	.08629	29	.5893	391	.08661	29	.5461	392	.00374	2	.99627	3	3
58	.08658	29	.5505	388	.08690	29	.5072	389	.00377	3	.99625	2	2
59	.08687	29	.5120	385	.08720	30	.4685	387	.00379	3	.99622	3	1
60	0.08716	29	11.4737	383	0.08749	29	11.4301	384	1.00382	3	0.99619	3	0
↑	94° →	Diff. 1'	sec	Diff. 1'	cot	Diff. 1'	tan	Diff. 1'	csc	Diff. 1'	sin	Diff. 1' ←	85°

TABLE 2 Natural Trigonometric Functions													
5° →		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	← 174°	
↓	sin											↑	↓
0	0.08716		11.4737		0.08749		11.4301		1.00382		0.99619		60
1	.08745	29	.4357	380	.08778	29	.3919	382	.00385	3	.99617	2	59
2	.08774	29	.3979	378	.08807	29	.3540	379	.00387	2	.99614	3	58
3	.08803	29	.3604	375	.08837	30	.3163	377	.00390	3	.99612	2	57
4	.08831	28	.3231	373	.08866	29	.2789	374	.00392	2	.99609	3	56
5	0.08860	29	11.2861	370	0.08895	29	11.2417	372	1.00395	3	0.99607	2	55
6	.08889	29	.2493	368	.08925	30	.2048	369	.00397	2	.99604	3	54
7	.08918	29	.2128	365	.08954	29	.1681	367	.00400	3	.99602	2	53
8	.08947	29	.1765	363	.08983	29	.1316	365	.00403	3	.99599	3	52
9	.08976	29	.1404	361	.09013	30	.0954	362	.00405	2	.99596	3	51
10	0.09005	29	11.1045	358	0.09042	29	11.0594	360	1.00408	3	0.99594	2	50
11	.09034	29	.0689	356	.09071	30	.0411	358	.00411	3	.99591	3	49
12	.09063	29	.0324	354	.09101	30	10.9882	356	.00413	3	.99588	3	48
13	.09092	29	10.9984	352	.09130	29	.9529	353	.00416	3	.99586	2	47
14	.09121	29	.9635	349	.09159	29	.9178	351	.00419	3	.99583	3	46
15	0.09150	29	10.9288	347	0.09189	30	10.8829	349	1.00421	2	0.99580	3	45
16	.09179	29	.8943	345	.09218	29	.8483	346	.00424	3	.99578	2	44
17	.09208	29	.8600	343	.09247	29	.8139	344	.00427	3	.99575	3	43
18	.09237	29	.8260	341	.09277	30	.7797	342	.00429	2	.99572	3	42
19	.09266	29	.7921	338	.09306	29	.7457	340	.00432	3	.99570	2	41
20	0.09295	29	10.7585	336	0.09335	29	10.7119	338	1.00435	3	0.99567	3	40
21	.09324	29	.7251	334	.09365	30	.6783	336	.00438	3	.99564	3	39
22	.09353	29	.6919	332	.09394	29	.6450	334	.00440	2	.99562	2	38
23	.09382	29	.6589	330	.09423	30	.6118	332	.00443	3	.99559	3	37
24	.09411	29	.6261	328	.09453	29	.5789	329	.00446	3	.99556	3	36
25	0.09440	29	10.5935	326	0.09482	29	10.5462	327	1.00449	3	0.99553	3	35
26	.09469	29	.5611	324	.09511	29	.5136	325	.00451	2	.99551	2	34
27	.09498	29	.5289	322	.09541	30	.4813	323	.00454	3	.99548	3	33
28	.09527	29	.4969	320	.09570	29	.4491	321	.00457	3	.99545	3	32
29	.09556	29	.4650	318	.09600	30	.4172	320	.00460	3	.99542	3	31
30	0.09585	29	10.4334	316	0.09629	29	10.3854	318	1.00463	3	0.99540	2	30
31	.09614	29	.4020	314	.09658	29	.3538	316	.00465	3	.99537	3	29
32	.09642	28	.3708	312	.09688	30	.3224	314	.00468	3	.99534	3	28
33	.09671	29	.3397	310	.09717	29	.2913	312	.00471	3	.99531	3	27
34	.09700	29	.3089	309	.09746	29	.2602	310	.00474	3	.99528	3	26
35	0.09729	29	10.2782	307	0.								

TABLE 2  
Natural Trigonometric Functions

Table with columns for angle (6° to 96°), sin, Diff. 1', csc, Diff. 1', tan, Diff. 1', cot, Diff. 1', sec, Diff. 1', cos, Diff. 1', and angle (96° to 83°). Rows 0-60.

TABLE 2  
Natural Trigonometric Functions

Table with columns for angle (7° to 97°), sin, Diff. 1', csc, Diff. 1', tan, Diff. 1', cot, Diff. 1', sec, Diff. 1', cos, Diff. 1', and angle (97° to 82°). Rows 0-60.

TABLE 2 Natural Trigonometric Functions													
8°↘		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	← 171°	
↓	sin											↑	↓
0	0.13917		7.18530		0.14054		7.11537		1.00983		0.99027		60
1	.13946	29	.17046	1484	.14084	30	.10038	1499	.00987	4	.99023	4	59
2	.13975	29	.15568	1478	.14113	29	.08546	1492	.00991	4	.99019	4	58
3	.14004	29	.14096	1471	.14143	30	.07059	1487	.00995	4	.99015	4	57
4	.14033	29	.12630	1466	.14173	30	.05579	1480	.00999	4	.99011	4	56
5	0.14061	28	7.11171	1460	0.14202	29	7.04105	1474	1.01004	5	0.99006	5	55
6	.14090	29	.09717	1453	.14232	30	.02637	1469	.01008	4	.99002	4	54
7	.14119	29	.08269	1448	.14262	30	7.01174	1462	.01012	4	.98998	4	53
8	.14148	29	.06828	1441	.14291	29	6.99718	1457	.01016	4	.98994	4	52
9	.14177	29	.05392	1436	.14321	30	.98268	1450	.01020	4	.98990	4	51
10	0.14205	28	7.03962	1430	0.14351	30	6.96823	1444	1.01024	5	0.98986	5	50
11	.14234	29	.02538	1423	.14381	30	.95385	1439	.01029	4	.98982	4	49
12	.14263	29	7.01120	1417	.14410	29	.93952	1432	.01033	4	.98978	4	48
13	.14292	29	6.99708	1412	.14440	30	.92525	1428	.01037	4	.98973	5	47
14	.14320	28	.98301	1407	.14470	30	.91104	1421	.01041	4	.98969	4	46
15	0.14349	29	6.96900	1400	0.14499	29	6.89688	1416	1.01046	5	0.98965	4	45
16	.14378	29	.95505	1396	.14529	30	.88278	1410	.01050	4	.98961	4	44
17	.14407	29	.94115	1390	.14559	30	.86874	1404	.01054	4	.98957	4	43
18	.14436	29	.92731	1384	.14588	29	.85475	1399	.01059	4	.98953	4	42
19	.14464	28	.91352	1379	.14618	30	.84082	1393	.01063	4	.98948	5	41
20	0.14493	29	6.89979	1372	0.14648	30	6.82694	1388	1.01067	4	0.98944	4	40
21	.14522	29	.88612	1368	.14678	30	.81312	1382	.01071	4	.98940	4	39
22	.14551	29	.87250	1362	.14707	29	.79936	1377	.01076	4	.98936	4	38
23	.14580	28	.85893	1357	.14737	30	.78564	1371	.01080	4	.98931	5	37
24	.14608	28	.84542	1351	.14767	30	.77199	1366	.01084	4	.98927	4	36
25	0.14637	29	6.83196	1346	0.14796	29	6.75838	1360	1.01089	5	0.98923	4	35
26	.14666	29	.81856	1340	.14826	30	.74483	1356	.01093	4	.98919	4	34
27	.14695	29	.80521	1336	.14856	30	.73133	1350	.01097	4	.98915	3	33
28	.14723	28	.79191	1330	.14886	30	.71789	1344	.01102	5	.98910	4	32
29	.14752	29	.77866	1324	.14915	29	.70450	1340	.01106	4	.98906	4	31
30	0.14781	29	6.76547	1320	0.14945	30	6.69116	1334	1.01111	5	0.98902	4	30
31	.14810	29	.75233	1314	.14975	30	.67787	1329	.01115	4	.98897	5	29
32	.14838	28	.73924	1310	.15005	30	.66463	1323	.01119	4	.98893	4	28
33	.14867	29	.72620	1303	.15034	29	.65144	1319	.01124	5	.98889	4	27
34	.14896	29	.71321	1299	.15064	30	.63831	1313	.01128	4	.98884	5	26
35	0.14925	29	6.70027	1293	0.15094	30	6.62523	1309	1.01133	5	0.98880	4	25
36	.14954	29	.68738	1289	.15124	30	.61219	1303	.01137	4	.98876	4	24
37	.14982	28	.67454	1283	.15153	29	.59921	1299	.01142	4	.98871	5	23
38	.15011	29	.66176	1279	.15183	30	.58627	1293	.01146	4	.98867	4	22
39	.15040	29	.64902	1273	.15213	30	.57339	1289	.01151	5	.98863	4	21
40	0.15069	29	6.63633	1269	0.15243	30	6.56055	1283	1.01155	5	0.98858	5	20
41	.15097	28	.62369	1264	.15272	29	.54777	1279	.01160	4	.98854	4	19
42	.15126	29	.61110	1260	.15302	30	.53503	1273	.01164	4	.98849	5	18
43	.15155	29	.59855	1254	.15332	30	.52234	1269	.01169	5	.98845	4	17
44	.15184	29	.58606	1250	.15362	30	.50970	1264	.01173	4	.98841	4	16
45	0.15212	28	6.57361	1244	0.15391	29	6.49710	1260	1.01178	5	0.98836	5	15
46	.15241	29	.56121	1240	.15421	30	.48456	1254	.01182	4	.98832	4	14
47	.15270	29	.54886	1236	.15451	30	.47206	1250	.01187	4	.98827	5	13
48	.15299	29	.53655	1230	.15481	30	.45961	1246	.01191	4	.98823	4	12
49	.15327	28	.52429	1226	.15511	30	.44720	1240	.01196	5	.98818	5	11
50	0.15356	29	6.51208	1221	0.15540	29	6.43484	1236	1.01200	4	0.98814	4	10
51	.15385	29	.49991	1217	.15570	30	.42253	1231	.01205	5	.98809	5	9
52	.15414	29	.48779	1212	.15600	30	.41026	1227	.01209	4	.98805	4	8
53	.15442	28	.47572	1208	.15630	30	.39804	1222	.01214	5	.98800	5	7
54	.15471	29	.46369	1202	.15660	30	.38587	1218	.01219	5	.98796	4	6
55	0.15500	29	6.45171	1199	0.15689	29	6.37374	1213	1.01223	4	0.98791	5	5
56	.15529	29	.43977	1193	.15719	30	.36165	1209	.01228	4	.98787	4	4
57	.15557	28	.42787	1190	.15749	30	.34961	1204	.01233	5	.98782	5	3
58	.15586	29	.41602	1186	.15779	30	.33761	1200	.01237	4	.98778	4	2
59	.15615	29	.40422	1180	.15809	30	.32566	1196	.01242	5	.98773	5	1
60	0.15643	28	6.39245	1177	0.15838	29	6.31375	1190	1.01247	5	0.98769	4	0
↑	cos	Diff. 1'	sec	Diff. 1'	cot	Diff. 1'	tan	Diff. 1'	csc	Diff. 1'	sin	Diff. 1'←	81°

TABLE 2 Natural Trigonometric Functions													
9°↘		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	← 170°	
↓	sin											↑	↓
0	0.15643		6.39245		0.15838		6.31375		1.01247		0.98769		60
1	.15672	29	.38073	1171	.15868	30	.30189	1187	.01251	4	.98764	5	59
2	.15701	29	.36906	1168	.15898	30	.29007	1182	.01256	5	.98760	4	58
3	.15730	29	.35743	1163	.15928	30	.27829	1178	.01261	5	.98755	5	57
4	.15758	28	.34584	1159	.15958	30	.26655	1173	.01265	4	.98751	4	56
5	0.15787	29	6.33429	1154	0.15988	30	6.25486	1170	1.01270	5	0.98746	5	55
6	.15816	29	.32279	1150	.16017	29	.24321	1166	.01275	5	.98741	5	54
7	.15845	29	.31133	1147	.16047	30	.23160	1160	.01279	4	.98737	4	53
8	.15873	28	.29991	1141	.16077	30	.22003	1157	.01284	5	.98732	5	52
9	.15902	29	.28853	1138	.16107	30	.20851	1152	.01289	5	.98728	4	51
10	0.15931	29	6.27719	1133	0.16137	30	6.19703	1149	1.01294	5	0.98723	5	50
11	.15959	28	.26590	1130	.16167	30	.18559	1144	.01298	4	.98718	5	49
12	.15988	29	.25464	1126	.16196	29	.17419	1140	.01303	4	.98714	4	48
13	.16017	29	.24343	1121	.16226	30	.16283	1136	.01308	5	.98709	5	47
14	.16046	28	.23226	1118	.16256	30	.15151	1131	.01313	5	.98704	5	46
15	0.16074	29	6.22113	1113	0.16286	30	6.14023	1128	1.01317	4	0.98700	4	45
16	.16103	29	.21004	1110	.16316	30	.12899	1123	.01322	5	.98695	5	44
17	.16132	29	.19898	1106	.16346	30	.11779	1120	.01327	5	.98690	5	43
18	.16160	28	.18797	1101	.16376	30	.10664	1116	.01332	5	.98686	4	42
19	.16189	29	.17700	1098	.16405	29	.09552	1111	.01337	5	.98681	5	41
20	0.16218	29	6.16607	1093	0.16435	30	6.08444	1108	1.01342	5	0.98676	5	40
21	.16246	28	.15517	1090	.16465	30	.07340	1104	.01346	4	.98671	5	39
22	.16275	29	.14432	1086	.16495	30	.06240	1100	.01351	5	.98667	4	38
23	.16304	29	.13350	1081	.16525	30	.05143	1097	.01356	5	.98662	5	37
24	.16333	29	.12273	1078	.16555	30	.04051	1092	.01361	5	.98657	5	36
25	0.16361	28	6.11199	1073	0.16585	30	6.02962	1089	1.01366	5	0.98652	5	35
26	.16390	29	.10129	1070	.16615	30	.01878	1084	.01371	4	.98648	4	34
27	.16419	29	.09062	1067	.16645	30	.00797	1080	.01376	5	.98643	5	33
28	.16447	28	.08000	1062	.16674	29	.599720	1078	.01381	5	.98638	5	32
29	.16476	29	.06941	1059	.16704	30	.98646	1073	.01386	5	.98633	5	31
30	0.16505	29	6.05886	1056	0.16734	30	5.97576	1070	1.01391	5	0.98629	4	30
31	.16533	28	.04834	1051	.16764	30	.96510	1066	.01395	4	.98624	5	29
32	.16562	29	.03787	1048	.16794	30	.95448	1062	.01400	5			

TABLE 2  
Natural Trigonometric Functions

Table with columns for angle (10° to 169°), sin, Diff. 1', csc, Diff. 1', tan, Diff. 1', cot, Diff. 1', sec, Diff. 1', cos, Diff. 1', and a secondary angle (79°). Rows 0-60.

TABLE 2  
Natural Trigonometric Functions

Table with columns for angle (11° to 168°), sin, Diff. 1', csc, Diff. 1', tan, Diff. 1', cot, Diff. 1', sec, Diff. 1', cos, Diff. 1', and a secondary angle (78°). Rows 0-60.



**TABLE 2**  
Natural Trigonometric Functions

12° →		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	← 167°	
↓	sin												↑	↓
0	0.20791		4.80973		0.21256		4.70463		1.02234		0.97815		60	
1	.20820	29	.80316	658	.21286	30	.69791	672	.02240	6	.97809	6	59	
2	.20848	28	.79661	656	.21316	30	.69121	670	.02247	7	.97803	6	58	
3	.20877	29	.79007	653	.21347	31	.68452	669	.02253	6	.97797	6	57	
4	.20905	28	.78355	651	.21377	30	.67786	667	.02259	6	.97791	6	56	
5	0.20933	29	4.77705	650	0.21408	31	4.67121	664	1.02266	7	0.97784	7	55	
6	.20962	29	.77057	649	.21438	30	.66458	662	.02272	6	.97778	6	54	
7	.20990	28	.76411	647	.21469	31	.65797	661	.02279	7	.97772	6	53	
8	.21019	29	.75766	644	.21499	30	.65138	660	.02285	6	.97766	6	52	
9	.21047	28	.75123	642	.21529	30	.64480	658	.02291	6	.97760	6	51	
10	0.21076	29	4.74482	641	0.21560	31	4.63825	656	1.02298	7	0.97754	6	50	
11	.21104	28	.73843	640	.21590	30	.63171	654	.02304	6	.97748	6	49	
12	.21132	28	.73205	638	.21621	31	.62518	652	.02311	7	.97742	6	48	
13	.21161	29	.72569	636	.21651	30	.61868	650	.02317	6	.97735	7	47	
14	.21189	28	.71935	634	.21682	31	.61219	649	.02323	6	.97729	6	46	
15	0.21218	29	4.71303	632	0.21712	30	4.60572	648	1.02330	7	0.97723	6	45	
16	.21246	28	.70673	630	.21743	31	.59927	646	.02336	6	.97717	6	44	
17	.21275	29	.70044	629	.21773	30	.59283	643	.02343	7	.97711	6	43	
18	.21303	28	.69417	628	.21804	31	.58641	641	.02349	6	.97705	6	42	
19	.21331	29	.68791	626	.21834	30	.58001	640	.02356	7	.97698	7	41	
20	0.21360	29	4.68167	623	0.21864	31	4.57363	639	1.02362	6	0.97692	6	40	
21	.21388	28	.67545	622	.21895	31	.56726	637	.02369	7	.97686	6	39	
22	.21417	29	.66925	620	.21925	30	.56091	636	.02375	6	.97680	6	38	
23	.21445	28	.66307	619	.21956	31	.55458	633	.02382	7	.97673	7	37	
24	.21474	29	.65690	617	.21986	30	.54826	631	.02388	6	.97667	6	36	
25	0.21502	28	4.65074	616	0.22017	31	4.54196	630	1.02395	7	0.97661	6	35	
26	.21530	29	.64461	613	.22047	30	.53568	629	.02402	6	.97655	6	34	
27	.21559	28	.63849	611	.22078	31	.52941	627	.02408	6	.97648	7	33	
28	.21587	29	.63238	610	.22108	30	.52316	626	.02415	7	.97642	6	32	
29	.21616	28	.62630	609	.22139	31	.51693	623	.02421	6	.97636	6	31	
30	0.21644	29	4.62023	608	0.22169	30	4.51071	621	1.02428	7	0.97630	6	30	
31	.21672	28	.61417	606	.22200	31	.50451	620	.02435	7	.97623	7	29	
32	.21701	29	.60813	603	.22231	30	.49832	619	.02441	6	.97617	6	28	
33	.21729	28	.60211	602	.22261	31	.49215	617	.02448	7	.97611	6	27	
34	.21758	29	.59611	600	.22292	30	.48600	616	.02454	6	.97604	7	26	
35	0.21786	28	4.59012	599	0.22322	31	4.47986	613	1.02461	7	0.97598	6	25	
36	.21814	29	.58414	598	.22353	30	.47374	612	.02468	6	.97592	6	24	
37	.21843	28	.57819	596	.22383	31	.46764	610	.02474	6	.97585	7	23	
38	.21871	29	.57224	594	.22414	30	.46155	609	.02481	7	.97579	6	22	
39	.21899	28	.56632	592	.22444	31	.45548	608	.02488	6	.97573	6	21	
40	0.21928	29	4.56041	591	0.22475	30	4.44942	606	1.02494	6	0.97566	7	20	
41	.21956	28	.55451	590	.22505	31	.44338	604	.02501	7	.97560	6	19	
42	.21985	29	.54863	588	.22536	30	.43735	602	.02508	6	.97553	7	18	
43	.22013	28	.54277	587	.22567	31	.43134	601	.02515	7	.97547	6	17	
44	.22041	29	.53692	584	.22597	30	.42534	600	.02521	6	.97541	6	16	
45	0.22070	28	4.53109	583	0.22628	31	4.41936	598	1.02528	7	0.97534	7	15	
46	.22098	29	.52527	581	.22658	30	.41340	597	.02535	7	.97528	6	14	
47	.22126	28	.51947	580	.22689	31	.40745	594	.02542	6	.97521	7	13	
48	.22155	29	.51368	579	.22719	30	.40152	593	.02548	6	.97515	6	12	
49	.22183	28	.50791	578	.22750	31	.39560	591	.02555	7	.97508	7	11	
50	0.22212	29	4.50216	576	0.22781	30	4.38969	590	1.02562	6	0.97502	6	10	
51	.22240	28	.49642	574	.22811	31	.38381	589	.02569	7	.97496	6	9	
52	.22268	29	.49069	572	.22842	30	.37793	588	.02576	6	.97489	7	8	
53	.22297	28	.48498	571	.22872	31	.37207	586	.02582	6	.97483	6	7	
54	.22325	29	.47928	570	.22903	30	.36623	584	.02589	7	.97476	7	6	
55	0.22353	28	4.47360	569	0.22934	31	4.36040	582	1.02596	6	0.97470	6	5	
56	.22382	29	.46793	567	.22964	30	.35459	581	.02603	7	.97463	7	4	
57	.22410	28	.46228	566	.22995	31	.34879	580	.02610	6	.97457	6	3	
58	.22438	29	.45664	563	.23026	30	.34300	579	.02617	7	.97450	7	2	
59	.22467	28	.45102	562	.23056	31	.33723	578	.02624	6	.97444	6	1	
60	0.22495	29	4.44541	560	0.23087	30	4.33148	576	1.02630	6	0.97437	7	0	

102° →		Diff. 1'	sec	Diff. 1'	cot	Diff. 1'	tan	Diff. 1'	csc	Diff. 1'	sin	Diff. 1'	← 77°	
↑	cos												↑	↓

**TABLE 2**  
Natural Trigonometric Functions

13° →		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	← 166°	
↓	sin												↑	↓
0	0.22495		4.44541		0.23087		4.33148		1.02630		0.97437		60	
1	.22523	28	.43982	560	.23117	30	.433148	574	.02637	7	.97430	7	59	
2	.22552	29	.43424	558	.23148	31	.42691	572	.02644	7	.97424	7	58	
3	.22580	28	.42867	557	.23179	31	.42068	571	.02651	7	.97417	7	57	
4	.22608	29	.42312	556	.23209	30	.41445	570	.02658	7	.97411	6	56	
5	0.22637	28	4.41759	553	0.23240	31	4.30291	569	1.02665	7	0.97404	7	55	
6	.22665	28	.41206	552	.23271	31	.40866	567	.02672	7	.97398	6	54	
7	.22693	29	.40656	550	.23301	30	.40441	566	.02679	7	.97391	7	53	
8	.22722	28	.40106	550	.23332	31	.39818	564	.02686	7	.97384	7	52	
9	.22750	28	.39558	548	.23363	30	.39195	562	.02693	7	.97378	6	51	
10	0.22778	29	4.39012	547	0.23393	31	4.27471	561	1.02700	7	0.97371	7	50	
11	.22807	29	.38466	546	.23424	31	.38646	560	.02707	7	.97365	6	49	
12	.22835	28	.37923	543	.23455	31	.38023	559	.02714	7	.97358	7	48	
13	.22863	28	.37380	542	.23485	30	.37400	558	.02721	7	.97351	7	47	
14	.22892	29	.36839	541	.23516	31	.36777	556	.02728	7	.97345	6	46	
15	0.22920	28	4.36299	540	0.23547	30	4.24685	554	1.02735	7	0.97338	7	45	
16	.22948	29	.35761	539	.23578	31	.4132	553	.02742	7	.97331	7	44	
17	.22977	28	.35224	537	.23609	30	.40697	551	.02749	7	.97325	6	43	
18	.23005	28	.34689	536	.23639	31	.40072	550	.02756	7	.97318	7	42	
19	.23033	29	.34154	534	.23670	30	.39447	549	.02763	7	.97311	7	41	
20	0.23062	29	4.35622	532	0.23700	31	4.21933	548	1.02770	7	0.97304	7	40	
21	.23090	28	.33090	531	.23731	31	.41308	547	.02777	7	.97298	6	39	
22	.23118	28	.32560	530	.23762	31	.40683	544	.02784	7	.97291	7	38	
23	.23146	29	.32031	529	.23793	31	.40058	543	.02791	7	.97284	7	37	
24	.23175	28	.31503	528	.23824	30	.39433	542	.02799	8	.97278	6	36	
25	0.23203	28	4.30977	527	0.23854	31	4.19215	540	1.02806	7	0.97271	7	35	
26	.23231	29	.30452	524	.23885	31	.41675	540	.02813	7	.97264	7	34	
27	.23260	29	.29929	523	.23916	31	.41050	539	.02820	7	.97257	7	33	
28	.23288	28	.29406	522	.23946	30	.40425	538	.02827	7	.97251	6	32	
29	.23316	28	.28885	520	.23977	31	.39800	536	.02834	7	.97244	7		

TABLE 2  
Natural Trigonometric Functions

Table with columns for angles 14° to 165°, trigonometric functions (sin, csc, tan, cot, sec, cos), and their differences. Includes a section for 104° to 75° at the bottom.

TABLE 2  
Natural Trigonometric Functions

Table with columns for angles 15° to 164°, trigonometric functions (sin, csc, tan, cot, sec, cos), and their differences. Includes a section for 105° to 74° at the bottom.

TABLE 2 Natural Trigonometric Functions													
16°→										← 163°			
↓	sin	Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	↑
0	0.27564		3.62796		0.28675		3.48741		1.04030		0.96126		60
1	.27592	28	.62428	368	.28706	31	.48359	382	.04039	8	.96118	8	59
2	.27620	28	.62061	367	.28738	32	.47977	381	.04047	8	.96110	8	58
3	.27648	28	.61695	367	.28769	31	.47596	380	.04056	8	.96102	8	57
4	.27676	28	.61330	366	.28801	32	.47216	380	.04065	9	.96094	8	56
5	.27704	27	.60965	364	.28832	31	.46837	380	.04073	8	.96086	8	55
6	.27731	27	.60601	363	.28864	32	.46458	379	.04082	9	.96078	8	54
7	.27759	28	.60238	363	.28895	31	.46080	378	.04091	9	.96070	8	53
8	.27787	28	.59876	362	.28927	32	.45703	378	.04100	9	.96062	8	52
9	.27815	28	.59514	361	.28958	31	.45327	377	.04108	8	.96054	8	51
10	.27843	28	.59154	360	.28990	32	.44951	376	.04117	9	.96046	8	50
11	.27871	28	.58794	360	.29021	31	.44576	374	.04126	9	.96037	8	49
12	.27899	28	.58434	360	.29053	32	.44202	374	.04135	9	.96029	8	48
13	.27927	28	.58076	359	.29084	31	.43829	373	.04144	9	.96021	8	47
14	.27955	28	.57718	358	.29116	32	.43456	372	.04152	8	.96013	8	46
15	.27983	28	.57361	358	.29147	31	.43084	371	.04161	9	.96005	8	45
16	.28011	28	.57005	357	.29179	32	.42713	371	.04170	9	.95997	8	44
17	.28039	28	.56649	356	.29210	31	.42343	370	.04179	9	.95989	8	43
18	.28067	28	.56294	354	.29242	32	.41973	370	.04188	9	.95981	8	42
19	.28095	28	.55940	354	.29274	31	.41604	369	.04197	9	.95972	8	41
20	.28123	28	.55587	353	.29305	32	.41236	369	.04206	9	.95964	8	40
21	.28150	27	.55234	352	.29337	32	.40869	368	.04214	8	.95956	8	39
22	.28178	28	.54883	351	.29368	31	.40502	367	.04223	9	.95948	8	38
23	.28206	28	.54531	350	.29400	32	.40136	366	.04232	9	.95940	8	37
24	.28234	28	.54181	350	.29432	32	.39771	366	.04241	9	.95931	9	36
25	.28262	28	.53831	350	.29463	31	.39406	364	.04250	9	.95923	8	35
26	.28290	28	.53482	349	.29495	32	.39042	363	.04259	9	.95915	8	34
27	.28318	28	.53134	349	.29526	31	.38679	363	.04268	9	.95907	8	33
28	.28346	28	.52787	348	.29558	32	.38317	362	.04277	9	.95898	9	32
29	.28374	28	.52440	347	.29590	32	.37955	361	.04286	9	.95890	8	31
30	.28402	28	.52094	347	.29621	31	.37594	360	.04295	9	.95882	8	30
31	.28429	27	.51748	346	.29653	32	.37234	360	.04304	9	.95874	8	29
32	.28457	28	.51404	344	.29685	32	.36875	360	.04313	9	.95865	8	28
33	.28485	28	.51060	343	.29716	31	.36516	359	.04322	9	.95857	8	27
34	.28513	28	.50716	343	.29748	32	.36158	359	.04331	9	.95849	8	26
35	.28541	28	.50374	342	.29780	32	.35800	358	.04340	9	.95841	8	25
36	.28569	28	.50032	341	.29811	31	.35443	357	.04349	9	.95832	8	24
37	.28597	28	.49691	341	.29843	32	.35087	357	.04358	9	.95824	8	23
38	.28625	28	.49350	340	.29875	32	.34732	356	.04367	9	.95816	8	22
39	.28652	27	.49010	340	.29906	31	.34377	354	.04376	9	.95807	9	21
40	.28680	28	.48671	340	.29938	32	.34023	353	.04385	9	.95799	8	20
41	.28708	28	.48333	339	.29970	32	.33670	353	.04394	9	.95791	8	19
42	.28736	28	.47995	338	.30001	31	.33317	352	.04403	9	.95782	8	18
43	.28764	28	.47658	338	.30033	32	.32965	351	.04413	10	.95774	8	17
44	.28792	28	.47321	337	.30065	32	.32614	351	.04422	9	.95766	8	16
45	.28820	28	.46986	336	.30097	32	.32264	350	.04431	9	.95757	9	15
46	.28847	27	.46651	336	.30128	31	.31914	350	.04440	9	.95749	8	14
47	.28875	28	.46316	334	.30160	32	.31565	350	.04449	9	.95740	9	13
48	.28903	28	.45983	333	.30192	32	.31216	349	.04458	9	.95732	8	12
49	.28931	28	.45650	333	.30224	32	.30868	348	.04468	10	.95724	8	11
50	.28959	28	.45317	332	.30255	31	.30521	348	.04477	9	.95715	9	10
51	.28987	28	.44986	331	.30287	32	.30174	347	.04486	9	.95707	8	9
52	.29015	28	.44655	331	.30319	32	.29829	346	.04495	9	.95698	9	8
53	.29042	27	.44324	330	.30351	32	.29483	346	.04504	9	.95690	8	7
54	.29070	28	.43995	330	.30382	31	.29139	344	.04514	10	.95681	9	6
55	.29098	28	.43666	330	.30414	32	.28795	343	.04523	9	.95673	8	5
56	.29126	28	.43337	329	.30446	32	.28452	343	.04532	9	.95664	9	4
57	.29154	28	.43010	328	.30478	32	.28109	342	.04541	9	.95656	8	3
58	.29182	28	.42683	328	.30509	31	.27767	341	.04551	10	.95647	9	2
59	.29209	27	.42356	327	.30541	32	.27426	341	.04560	9	.95639	8	1
60	.29237	28	.42030	326	.30573	32	.27085	340	.04569	9	.95630	9	0
↑	cos	Diff. 1'	sec	Diff. 1'	cot	Diff. 1'	tan	Diff. 1'	csc	Diff. 1'	sin	Diff. 1'←	73°

TABLE 2 Natural Trigonometric Functions													
17°→										← 162°			
↓	sin	Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	↑
0	0.29237		3.42030		0.30573		3.27085		1.04569		0.95630		60
1	.29265	28	.41705	326	.30605	32	.26745	340	.04578	9	.95622	8	59
2	.29293	28	.41381	324	.30637	32	.26406	340	.04588	10	.95613	9	58
3	.29321	28	.41057	323	.30669	32	.26067	339	.04597	9	.95605	8	57
4	.29348	27	.40734	323	.30700	31	.25729	339	.04606	9	.95596	9	56
5	.29376	28	.40411	322	.30732	32	.25392	338	.04616	10	.95588	8	55
6	.29404	28	.40089	321	.30764	32	.25055	337	.04625	9	.95579	9	54
7	.29432	28	.39768	321	.30796	32	.24719	337	.04635	10	.95571	8	53
8	.29460	28	.39448	320	.30828	32	.24383	336	.04644	9	.95562	9	52
9	.29487	27	.39128	320	.30860	32	.24049	334	.04653	9	.95554	8	51
10	.29515	28	.38808	320	.30891	31	.23714	334	.04663	10	.95545	9	50
11	.29543	28	.38489	319	.30923	32	.23381	333	.04672	9	.95536	9	49
12	.29571	28	.38171	319	.30955	32	.23048	332	.04682	10	.95528	8	48
13	.29599	28	.37854	318	.30987	32	.22715	332	.04691	9	.95519	9	47
14	.29626	27	.37537	317	.31019	32	.22384	331	.04700	9	.95511	8	46
15	.29654	28	.37221	317	.31051	32	.22053	331	.04710	10	.95502	9	45
16	.29682	28	.36905	316	.31083	32	.21722	330	.04719	9	.95493	9	44
17	.29710	28	.36590	314	.31115	32	.21392	330	.04729	10	.95485	8	43
18	.29737	27	.36276	314	.31147	32	.21063	330	.04738	9	.95476	9	42
19	.29765	28	.35962	313	.31178	31	.20734	329	.04748	10	.95467	9	41
20	.29793	28	.35649	313	.31210	32	.20406	329	.04757	9	.95459	8	40
21	.29821	28	.35336	312	.31242	32	.20079	328	.04767	10	.95450	9	39
22	.29849	28	.35025	311	.31274	32	.19752	327	.04776	9	.95441	9	38
23	.29876	27	.34713	311	.31306	32	.19426	327	.04786	10	.95433	8	37
24	.29904	28	.34403	310	.31338	32	.19100	326	.04795	9	.95424	9	36
25	.29932	28	.34092	310	.31370	32	.18775	324	.04805	10	.95415	9	35
26	.29960	28	.33783	310	.31402	32	.18451	324	.04815	10	.95407	8	34
27	.29987	27	.33474	309	.31434	32	.18127	323	.04824	9	.95398	9	33
28	.30015	28	.33166	309	.31466	32	.17804	323	.04834	10	.95389	9	32
29	.30043	28	.32858	308	.31498	32	.17481	322	.04843	9	.95380	9	31
30	.30071	28	.32551	308	.31530	32	.17159	321	.04853	10	.95372	8	30
31	.30098	27	.32244	307	.31562	32	.16838	321	.04863	10	.95363	9	29
32	.30126	28	.31939	306	.31594	32	.16517	320	.04872	9	.95354	9	28
33	.30154	28	.31633	306	.31626	32	.16197	320	.04882	10	.95345	9	27
34	.30182	28	.31328	304	.31658	32	.15877	320	.04891	9	.95337	8	26
35	.30209	27	.31024	304	.31690	32	.15558	320	.04901	10	.95328	9	25
36	.30237	28	.30721										

TABLE 2  
Natural Trigonometric Functions

Table with columns for angles 180 to 161 degrees, and rows for trigonometric functions: sin, Diff. 1', csc, Diff. 1', tan, Diff. 1', cot, Diff. 1', sec, Diff. 1', cos, Diff. 1'. Includes values for 180, 179, 178, 177, 176, 175, 174, 173, 172, 171, 170, 169, 168, 167, 166, 165, 164, 163, 162, 161 degrees.

TABLE 2  
Natural Trigonometric Functions

Table with columns for angles 190 to 160 degrees, and rows for trigonometric functions: sin, Diff. 1', csc, Diff. 1', tan, Diff. 1', cot, Diff. 1', sec, Diff. 1', cos, Diff. 1'. Includes values for 190, 189, 188, 187, 186, 185, 184, 183, 182, 181, 180, 179, 178, 177, 176, 175, 174, 173, 172, 171, 170, 169, 168, 167, 166, 165, 164, 163, 162, 161, 160 degrees.

TABLE 2 Natural Trigonometric Functions												
20° →									← 159°			
↓	sin	Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1' ↓
0	0.34202		2.92380		0.36397		2.74748		1.06418		0.93969	60
1	.34229	27	.92147	233	.36430	33	.74499	249	.06429	11	.93959	59
2	.34257	28	.91914	232	.36463	33	.74251	249	.06440	11	.93949	58
3	.34284	27	.91681	233	.36496	33	.74004	248	.06452	12	.93939	57
4	.34311	27	.91449	232	.36529	33	.73756	248	.06463	11	.93929	56
5	0.34339	28	2.91217	231	0.36562	33	2.73509	247	1.06474	11	0.93919	55
6	.34366	27	.90986	231	.36595	33	.73263	247	.06486	12	.93909	54
7	.34393	27	.90754	231	.36628	33	.73017	247	.06497	11	.93899	53
8	.34421	28	.90524	230	.36661	33	.72771	246	.06508	11	.93889	52
9	.34448	27	.90293	230	.36694	33	.72526	246	.06520	12	.93879	51
10	0.34475	27	2.90063	230	0.36727	33	2.72281	244	1.06531	11	0.93869	50
11	.34503	28	.89834	230	.36760	33	.72036	244	.06542	11	.93859	49
12	.34530	27	.89605	230	.36793	33	.71792	244	.06554	12	.93849	48
13	.34557	27	.89376	229	.36826	33	.71548	243	.06565	11	.93839	47
14	.34584	27	.89148	229	.36859	33	.71305	243	.06577	12	.93829	46
15	0.34612	28	2.88920	229	0.36892	33	2.71062	243	1.06588	11	0.93819	45
16	.34639	27	.88692	228	.36925	33	.70819	242	.06600	12	.93809	44
17	.34666	27	.88465	228	.36958	33	.70577	242	.06611	11	.93799	43
18	.34694	28	.88238	227	.36991	33	.70335	241	.06622	11	.93789	42
19	.34721	27	.88011	227	.37024	33	.70094	241	.06634	12	.93779	41
20	0.34748	27	2.87785	227	0.37057	33	2.69853	241	1.06645	11	0.93769	40
21	.34775	27	.87560	226	.37090	33	.69612	240	.06657	12	.93759	39
22	.34803	28	.87334	226	.37123	33	.69371	240	.06668	11	.93748	38
23	.34830	27	.87109	224	.37157	34	.69131	240	.06680	11	.93738	37
24	.34857	27	.86885	224	.37190	33	.68892	240	.06691	11	.93728	36
25	0.34884	27	2.86661	224	0.37223	33	2.68653	240	1.06703	12	0.93718	35
26	.34912	28	.86437	223	.37256	33	.68414	239	.06715	10	.93708	34
27	.34939	27	.86213	223	.37289	33	.68175	239	.06726	11	.93698	33
28	.34966	27	.85990	223	.37322	33	.67937	239	.06738	12	.93688	32
29	.34993	27	.85767	222	.37355	33	.67700	238	.06749	11	.93677	31
30	0.35021	28	2.85545	222	0.37388	33	2.67462	238	1.06761	12	0.93667	30
31	.35048	27	.85323	221	.37422	34	.67225	237	.06773	10	.93657	29
32	.35075	27	.85102	221	.37455	33	.66989	237	.06784	11	.93647	28
33	.35102	27	.84880	221	.37488	33	.66752	237	.06796	12	.93637	27
34	.35130	28	.84659	220	.37521	33	.66516	236	.06807	11	.93626	26
35	0.35157	27	2.84439	220	0.37554	33	2.66281	236	1.06819	12	0.93616	25
36	.35184	27	.84219	220	.37588	34	.66046	236	.06831	12	.93606	24
37	.35211	27	.83999	220	.37621	33	.65811	236	.06842	11	.93596	23
38	.35239	28	.83780	220	.37654	33	.65576	234	.06854	12	.93585	22
39	.35266	27	.83561	220	.37687	33	.65342	234	.06866	12	.93575	21
40	0.35293	27	2.83342	219	0.37720	33	2.65109	233	1.06878	12	0.93565	20
41	.35320	27	.83124	219	.37754	34	.64875	233	.06889	11	.93555	19
42	.35347	27	.82906	218	.37787	33	.64642	232	.06901	12	.93544	18
43	.35375	28	.82688	218	.37820	33	.64410	232	.06913	12	.93534	17
44	.35402	27	.82471	218	.37853	33	.64177	232	.06925	12	.93524	16
45	0.35429	27	2.82254	217	0.37887	34	2.63945	231	1.06936	11	0.93514	15
46	.35456	27	.82037	217	.37920	33	.63714	231	.06948	12	.93503	14
47	.35484	28	.81821	217	.37953	33	.63483	231	.06960	12	.93493	13
48	.35511	27	.81605	216	.37986	33	.63252	230	.06972	12	.93483	12
49	.35538	27	.81390	216	.38020	34	.63021	230	.06984	12	.93472	11
50	0.35565	27	2.81175	216	0.38053	33	2.62791	230	1.06995	11	0.93462	10
51	.35592	27	.80960	214	.38086	33	.62561	230	.07007	12	.93452	9
52	.35619	28	.80746	214	.38120	34	.62332	230	.07019	12	.93441	8
53	.35647	28	.80531	214	.38153	33	.62103	230	.07031	12	.93431	7
54	.35674	27	.80318	213	.38186	33	.61874	229	.07043	12	.93420	6
55	0.35701	27	2.80104	213	0.38220	34	2.61646	229	1.07055	12	0.93410	5
56	.35728	27	.79891	213	.38253	33	.61418	229	.07067	12	.93400	4
57	.35755	27	.79679	212	.38286	33	.61190	228	.07079	12	.93389	3
58	.35782	27	.79466	212	.38320	34	.60963	228	.07091	12	.93379	2
59	.35810	28	.79254	211	.38353	33	.60736	228	.07103	12	.93368	1
60	0.35837	27	2.79043	211	0.38386	33	2.60509	227	1.07114	11	0.93358	0
↑	cos	Diff. 1'	sec	Diff. 1'	cot	Diff. 1'	tan	Diff. 1'	csc	Diff. 1'	sin	Diff. 1' ↑
110° →												← 69°

TABLE 2 Natural Trigonometric Functions												
21° →									← 158°			
↓	sin	Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1' ↓
0	0.35837		2.79043		0.38386		2.60509		1.07114		0.93358	60
1	.35864	27	.78832	211	.38420	34	.60283	227	.07126	12	.93348	59
2	.35891	27	.78621	210	.38453	33	.60057	226	.07138	12	.93337	58
3	.35918	27	.78410	210	.38487	34	.59831	226	.07150	12	.93327	57
4	.35945	27	.78200	210	.38520	33	.59606	226	.07162	12	.93316	56
5	0.35973	28	2.77990	210	0.38553	33	2.59381	224	1.07174	12	0.93306	55
6	.36000	27	.77780	210	.38587	34	.59156	224	.07186	12	.93295	54
7	.36027	27	.77571	210	.38620	33	.58932	224	.07199	13	.93285	53
8	.36054	27	.77362	209	.38654	34	.58708	223	.07211	12	.93274	52
9	.36081	27	.77154	209	.38687	33	.58484	223	.07223	12	.93264	51
10	0.36108	27	2.76945	209	0.38721	34	2.58261	223	1.07235	12	0.93253	50
11	.36135	27	.76737	208	.38754	33	.58038	222	.07247	12	.93243	49
12	.36162	27	.76530	208	.38787	33	.57815	222	.07259	12	.93232	48
13	.36190	28	.76323	208	.38821	34	.57593	222	.07271	12	.93222	47
14	.36217	27	.76116	207	.38854	33	.57371	221	.07283	12	.93211	46
15	0.36244	27	2.75909	207	0.38888	34	2.57150	221	1.07295	12	0.93201	45
16	.36271	27	.75703	207	.38921	33	.56928	221	.07307	12	.93190	44
17	.36298	27	.75497	206	.38955	34	.56707	220	.07320	13	.93180	43
18	.36325	27	.75292	206	.38988	33	.56487	220	.07332	12	.93169	42
19	.36352	27	.75086	206	.39022	34	.56266	220	.07344	12	.93159	41
20	0.36379	27	2.74881	206	0.39055	33	2.56046	220	1.07356	12	0.93148	40
21	.36406	27	.74677	204	.39089	34	.55827	220	.07368	12	.93137	39
22	.36434	28	.74473	204	.39122	33	.55608	220	.07380	12	.93127	38
23	.36461	27	.74269	203	.39156	34	.55389	219	.07393	13	.93116	37
24	.36488	27	.74065	203	.39190	34	.55170	219	.07405	12	.93106	36
25	0.36515	27	2.73862	203	0.39223	33	2.54952	219	1.07417	12	0.93095	35
26	.36542	27	.73659	202	.39257	34	.54734	219	.07429	12	.93084	34
27	.36569	27	.73456	202	.39290	33	.54516	218	.07442	13	.93074	33
28	.36596	27	.73254	202	.39324	34	.54299	218	.07454	12	.93063	32
29	.36623	27	.73052	201	.39357	33	.54082	218	.07466	12	.93052	31
30	0.36650	27	2.72850	201	0.39391	34	2.53865	217	1.07479	13	0.93042	30
31	.36677	27	.72649	201	.39425	34	.53648	217	.07491	12	.93031	29
32	.36704	27	.72448	201	.39458	33	.53432	217	.07503	12	.93020	28
33	.36731	27	.72247	200	.39492	34	.53217	216	.07516	12	.93010	27
34	.36758	27	.72047	200	.39526	34	.53001	216	.07528	12	.92999	26
35	0.36785	27	2.71847	200	0.39559	33	2.52786	216	1.07540	12	0.92988	25
36	.36812	27	.71647	200	.39593	34	.52571	214	.07553	13	.92978	24
37	.36839	27	.71448	200	.39626	33	.52357	214	.07565	12	.92967	23
38	.36867</											

TABLE 2  
Natural Trigonometric Functions

Table with columns for angles 22° to 157°, trigonometric functions (sin, csc, tan, cot, sec, cos), and their differences. Includes a bottom row for angles 112° to 67°.

TABLE 2  
Natural Trigonometric Functions

Table with columns for angles 23° to 156°, trigonometric functions (sin, csc, tan, cot, sec, cos), and their differences. Includes a bottom row for angles 113° to 66°.

TABLE 2 Natural Trigonometric Functions													
24°→							← 155°						
↓	sin	Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	↑
0	0.40674		2.45859		0.44523		2.24604		1.09464		0.91355		60
1	.40700	26	.45699	160	.44558	35	.24428	176	.09478	14	.91343	12	59
2	.40727	27	.45539	160	.44593	35	.24252	176	.09492	14	.91331	12	58
3	.40753	26	.45378	160	.44627	34	.24077	176	.09506	14	.91319	12	57
4	.40780	27	.45219	160	.44662	35	.23902	176	.09520	14	.91307	12	56
5	0.40806	26	2.45059	160	0.44697	35	2.23727	174	1.09535	15	0.91295	12	55
6	.40833	27	.44900	160	.44732	35	.23553	174	.09549	14	.91283	12	54
7	.40860	26	.44741	160	.44767	35	.23378	174	.09563	14	.91272	11	53
8	.40886	27	.44582	159	.44802	35	.23204	174	.09577	14	.91260	12	52
9	.40913	27	.44423	159	.44837	35	.23030	173	.09592	15	.91248	12	51
10	0.40939	26	2.44264	159	0.44872	35	2.22857	173	1.09606	14	0.91236	12	50
11	.40966	27	.44106	159	.44907	35	.22683	173	.09620	14	.91224	12	49
12	.40992	26	.43948	160	.44942	35	.22510	173	.09635	15	.91212	12	48
13	.41019	27	.43790	158	.44977	35	.22337	172	.09649	14	.91200	12	47
14	.41045	26	.43633	158	.45012	35	.22164	172	.09663	14	.91188	12	46
15	0.41072	27	2.43476	158	0.45047	35	2.21992	172	1.09678	15	0.91176	12	45
16	.41098	26	.43318	158	.45082	35	.21819	172	.09692	14	.91164	12	44
17	.41125	27	.43162	157	.45117	35	.21647	172	.09707	15	.91152	12	43
18	.41151	26	.43005	157	.45152	35	.21475	171	.09721	14	.91140	12	42
19	.41178	27	.42848	157	.45187	35	.21304	171	.09735	14	.91128	12	41
20	0.41204	26	2.42692	157	0.45222	35	2.21132	171	1.09750	15	0.91116	12	40
21	.41231	27	.42536	157	.45257	35	.20961	171	.09764	14	.91104	12	39
22	.41257	26	.42380	156	.45292	35	.20790	171	.09779	15	.91092	12	38
23	.41284	27	.42225	156	.45327	35	.20619	170	.09793	14	.91080	12	37
24	.41310	26	.42070	156	.45362	35	.20449	170	.09808	15	.91068	12	36
25	0.41337	27	2.41914	156	0.45397	35	2.20278	170	1.09822	14	0.91056	12	35
26	.41363	26	.41760	154	.45432	35	.20108	170	.09837	15	.91044	12	34
27	.41390	27	.41605	154	.45467	35	.19938	170	.09851	14	.91032	12	33
28	.41416	26	.41450	154	.45502	35	.19769	170	.09866	15	.91020	12	32
29	.41443	27	.41296	154	.45538	36	.19599	170	.09880	14	.91008	12	31
30	0.41469	26	2.41142	154	0.45573	35	2.19430	170	1.09895	15	0.90996	12	30
31	.41496	27	.40988	153	.45608	35	.19261	170	.09909	14	.90984	12	29
32	.41522	26	.40835	153	.45643	35	.19092	169	.09924	15	.90972	12	28
33	.41549	27	.40681	153	.45678	35	.18923	169	.09939	15	.90960	12	27
34	.41575	26	.40528	152	.45713	35	.18755	169	.09953	14	.90948	12	26
35	0.41602	27	2.40375	152	0.45748	35	2.18587	169	1.09968	15	0.90936	12	25
36	.41628	26	.40222	152	.45784	36	.18419	168	.09982	14	.90924	12	24
37	.41655	27	.40070	152	.45819	35	.18251	168	.09997	15	.90911	13	23
38	.41681	26	.39918	152	.45854	35	.18084	168	.10012	15	.90899	12	22
39	.41707	27	.39766	152	.45889	35	.17916	168	.10026	14	.90887	12	21
40	0.41734	26	2.39614	151	0.45924	35	2.17749	168	1.10041	15	0.90875	12	20
41	.41760	27	.39462	151	.45960	36	.17582	167	.10056	15	.90863	12	19
42	.41787	27	.39311	151	.45995	35	.17416	167	.10071	15	.90851	12	18
43	.41813	26	.39159	151	.46030	35	.17249	167	.10085	14	.90839	12	17
44	.41840	27	.39008	151	.46065	35	.17083	167	.10100	15	.90826	13	16
45	0.41866	26	2.38857	150	0.46101	36	2.16917	167	1.10115	15	0.90814	12	15
46	.41892	26	.38707	150	.46136	35	.16751	166	.10130	15	.90802	12	14
47	.41919	26	.38556	150	.46171	35	.16585	166	.10144	14	.90790	12	13
48	.41945	26	.38406	150	.46206	35	.16420	166	.10159	15	.90778	12	12
49	.41972	27	.38256	150	.46242	36	.16255	166	.10174	15	.90766	12	11
50	0.41998	26	2.38107	150	0.46277	35	2.16090	166	1.10189	15	0.90753	13	10
51	.42024	26	.37957	150	.46312	35	.15925	164	.10204	15	.90741	12	9
52	.42051	27	.37808	150	.46348	36	.15760	164	.10218	14	.90729	12	8
53	.42077	26	.37658	150	.46383	35	.15596	164	.10233	15	.90717	12	7
54	.42104	27	.37509	149	.46418	35	.15432	164	.10248	15	.90704	13	6
55	0.42130	26	2.37361	149	0.46454	36	2.15268	163	1.10263	15	0.90692	12	5
56	.42156	26	.37212	149	.46489	35	.15104	163	.10278	15	.90680	12	4
57	.42183	27	.37064	149	.46525	36	.14940	163	.10293	15	.90668	13	3
58	.42209	26	.36916	149	.46560	35	.14777	163	.10308	15	.90655	13	2
59	.42235	27	.36768	148	.46595	35	.14614	163	.10323	15	.90643	12	1
60	0.42262	26	2.36620	148	0.46631	36	2.14451	162	1.10338	15	0.90631	12	0
↑	cos	Diff. 1'	sec	Diff. 1'	cot	Diff. 1'	tan	Diff. 1'	csc	Diff. 1'	sin	Diff. 1'	↑
114°→													← 65°

TABLE 2 Natural Trigonometric Functions													
25°→							← 154°						
↓	sin	Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	↑
0	0.42262		2.36620		0.46631		2.14451		1.10338		0.90631		60
1	.42288	26	.36473	148	.46666	35	.14288	162	.10353	15	.90618	13	59
2	.42315	27	.36325	148	.46702	36	.14125	162	.10368	15	.90606	12	58
3	.42342	26	.36178	148	.46737	35	.13963	162	.10383	15	.90594	12	57
4	.42367	27	.36031	147	.46772	35	.13801	162	.10398	15	.90582	12	56
5	0.42394	26	2.35885	147	0.46808	36	2.13639	161	1.10413	15	0.90569	13	55
6	.42420	26	.35738	147	.46843	35	.13477	161	.10428	15	.90557	12	54
7	.42446	26	.35592	147	.46879	36	.13316	161	.10443	15	.90545	12	53
8	.42473	27	.35446	147	.46914	35	.13154	161	.10458	15	.90532	12	52
9	.42499	26	.35300	146	.46950	36	.12993	161	.10473	15	.90520	12	51
10	0.42525	26	2.35154	146	0.46985	35	2.12832	160	1.10488	15	0.90507	13	50
11	.42552	27	.35009	146	.47021	36	.12671	160	.10503	15	.90495	12	49
12	.42578	26	.34863	146	.47056	35	.12511	160	.10518	15	.90483	12	48
13	.42604	26	.34718	146	.47092	36	.12350	160	.10533	15	.90470	13	47
14	.42631	27	.34573	144	.47128	36	.12190	160	.10549	16	.90458	12	46
15	0.42657	26	2.34429	144	0.47163	35	2.12030	160	1.10564	15	0.90446	12	45
16	.42683	26	.34284	144	.47199	36	.11871	160	.10579	15	.90433	13	44
17	.42709	26	.34140	144	.47234	35	.11711	160	.10594	15	.90421	12	43
18	.42736	27	.33996	144	.47270	36	.11552	160	.10609	15	.90408	13	42
19	.42762	26	.33852	143	.47305	35	.11392	160	.10625	16	.90396	12	41
20	0.42788	26	2.33708	143	0.47341	36	2.11233	159	1.10640	15	0.90383	13	40
21	.42815	27	.33565	143	.47377	36	.11075	159	.10655	15	.90371	12	39
22	.42841	26	.33422	143	.47412	35	.10916	159	.10670	15	.90358	13	38
23	.42867	27	.33278	143	.47448	36	.10758	159	.10686	16	.90346	12	37
24	.42894	26	.33135	142	.47483	35	.10600	159	.10701	15	.90334	12	36
25	0.42920	26	2.32993	142	0.47519	36	2.10442	159	1.10716	15	0.90321	13	35
26	.42946	26	.32850	142	.47555	36	.10284	158	.10731	15	.90309	12	34
27	.42972	26	.32708	142	.47590	35	.10126	158	.10747	16	.90296	13	33
28	.42999	27	.32566	142	.47626	36	.09969	158	.10762	15	.90284	12	32
29	.43025	26	.32424	141	.47662	36	.09811	158	.10777	15	.90271	13	31
30	0.43051	26	2.32282	141	0.47698	36	2.09654	158	1.10793	16	0.90259	12	30
31	.43077	26	.32140	141	.47733	35	.09498	157	.10808	15	.90246	13	29
32	.43104	27	.31999	141	.47769	36	.09341	157	.10824	16</			

**TABLE 2**  
Natural Trigonometric Functions

26° →		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	← 153°	
↓	sin												↑	↓
0	0.43837	26	2.28117	136	0.48773	36	2.05030	151	1.11260	16	0.89879	12	60	
1	.43863	26	.27981	136	.48809	36	.04879	151	.11276	16	.89867	13	59	
2	.43889	26	.27845	136	.48845	36	.04728	151	.11292	16	.89854	13	58	
3	.43916	27	.27710	136	.48881	36	.04577	150	.11308	16	.89841	13	57	
4	.43942	26	.27574	136	.48917	36	.04426	150	.11323	15	.89828	13	56	
5	0.43968	26	2.27439	136	0.48953	36	2.04276	150	1.11339	16	0.89816	12	55	
6	.43994	26	.27304	136	.48989	36	.04125	150	.11355	16	.89803	13	54	
7	.44020	26	.27169	134	.49026	37	.03975	150	.11371	16	.89790	13	53	
8	.44046	26	.27035	134	.49062	36	.03825	150	.11387	16	.89777	13	52	
9	.44072	26	.26900	134	.49098	36	.03675	150	.11403	16	.89764	13	51	
10	0.44098	26	2.26766	134	0.49134	36	2.03526	150	1.11419	16	0.89752	12	50	
11	.44124	27	.26632	133	.49170	36	.03376	150	.11435	16	.89739	13	49	
12	.44151	27	.26498	133	.49206	36	.03227	150	.11451	16	.89726	13	48	
13	.44177	26	.26364	133	.49242	36	.03078	150	.11467	16	.89713	13	47	
14	.44203	26	.26230	133	.49278	36	.02929	149	.11483	16	.89700	13	46	
15	0.44229	26	2.26097	133	0.49315	37	2.02780	149	1.11499	16	0.89687	13	45	
16	.44255	26	.25963	133	.49351	36	.02631	149	.11515	16	.89674	13	44	
17	.44281	26	.25830	133	.49387	36	.02483	149	.11531	16	.89662	12	43	
18	.44307	26	.25697	132	.49423	36	.02335	149	.11547	16	.89649	13	42	
19	.44333	26	.25565	132	.49459	36	.02187	149	.11563	16	.89636	13	41	
20	0.44359	26	2.25432	132	0.49495	36	2.02039	148	1.11579	16	0.89623	13	40	
21	.44385	26	.25300	132	.49532	37	.01891	148	.11595	16	.89610	13	39	
22	.44411	26	.25167	132	.49568	36	.01743	148	.11611	16	.89597	13	38	
23	.44437	26	.25035	132	.49604	36	.01596	148	.11627	16	.89584	13	37	
24	.44464	27	.24903	131	.49640	36	.01449	148	.11643	16	.89571	13	36	
25	0.44490	26	2.24772	131	0.49677	37	2.01302	148	1.11659	16	0.89558	13	35	
26	.44516	26	.24640	131	.49713	36	.01155	147	.11675	16	.89545	13	34	
27	.44542	26	.24509	131	.49749	36	.01008	147	.11691	16	.89532	13	33	
28	.44568	26	.24378	131	.49786	37	.00862	147	.11708	17	.89519	13	32	
29	.44594	26	.24247	130	.49822	36	.00715	147	.11724	16	.89506	13	31	
30	0.44620	26	2.24116	130	0.49858	36	2.00569	147	1.11740	16	0.89493	13	30	
31	.44646	26	.23985	130	.49894	36	.00423	147	.11756	16	.89480	13	29	
32	.44672	26	.23855	130	.49931	37	.00277	146	.11772	16	.89467	13	28	
33	.44698	26	.23724	130	.49967	36	.00131	146	.11789	17	.89454	13	27	
34	.44724	26	.23594	130	.50004	37	.199986	146	.11805	16	.89441	13	26	
35	0.44750	26	2.23464	130	0.50040	36	1.99841	146	1.11821	16	0.89428	13	25	
36	.44776	26	.23334	130	.50076	36	.99695	146	.11838	16	.89415	13	24	
37	.44802	26	.23205	130	.50113	37	.99550	146	.11854	16	.89402	13	23	
38	.44828	26	.23075	130	.50149	36	.99406	144	.11870	16	.89389	13	22	
39	.44854	26	.22946	130	.50185	36	.99261	144	.11886	16	.89376	13	21	
40	0.44880	26	2.22817	130	0.50222	37	1.99116	144	1.11903	17	0.89363	13	20	
41	.44906	26	.22688	129	.50258	36	.98972	144	.11919	16	.89350	13	19	
42	.44932	26	.22559	129	.50295	37	.98828	144	.11936	16	.89337	13	18	
43	.44958	26	.22430	129	.50331	36	.98684	144	.11952	16	.89324	13	17	
44	.44984	26	.22302	129	.50368	37	.98540	143	.11968	16	.89311	13	16	
45	0.45010	26	2.22174	129	0.50404	36	1.98396	143	1.11985	17	0.89298	13	15	
46	.45036	26	.22045	129	.50441	37	.98253	143	.12001	16	.89285	13	14	
47	.45062	26	.21918	128	.50477	36	.98110	143	.12018	17	.89272	13	13	
48	.45088	26	.21790	128	.50514	37	.97966	143	.12034	16	.89259	13	12	
49	.45114	26	.21662	128	.50550	36	.97823	143	.12051	17	.89245	14	11	
50	0.45140	26	2.21535	128	0.50587	37	1.97681	142	1.12067	16	0.89232	13	10	
51	.45166	26	.21407	128	.50623	36	.97538	142	.12083	16	.89219	13	9	
52	.45192	26	.21280	128	.50660	37	.97395	142	.12100	17	.89206	13	8	
53	.45218	25	.21153	127	.50696	36	.97253	142	.12117	17	.89193	13	7	
54	.45243	26	.21026	127	.50733	37	.97111	142	.12133	16	.89180	13	6	
55	0.45269	26	2.20900	127	0.50769	36	1.96969	142	1.12150	17	0.89167	13	5	
56	.45295	26	.20773	127	.50806	37	.96827	141	.12166	16	.89154	14	4	
57	.45321	26	.20647	127	.50843	37	.96685	141	.12183	17	.89140	13	3	
58	.45347	26	.20521	127	.50879	36	.96544	141	.12199	16	.89127	13	2	
59	.45373	26	.20395	126	.50916	37	.96402	141	.12216	17	.89114	13	1	
60	0.45399	26	2.20269	126	0.50953	37	1.96261	141	1.12233	17	0.89101	13	0	
↑	116° →	Diff. 1'	sec	Diff. 1'	cot	Diff. 1'	tan	Diff. 1'	csc	Diff. 1'	sin	Diff. 1'	↑	63°

**TABLE 2**  
Natural Trigonometric Functions

27° →		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	← 152°	
↓	sin												↑	↓
0	0.45399	26	2.20269	126	0.50953	36	1.96261	141	1.12233	16	0.89101	14	60	
1	.45425	26	.20143	126	.50989	36	.96120	140	.12249	17	.89087	14	59	
2	.45451	26	.20018	126	.51026	37	.95979	140	.12266	17	.89074	13	58	
3	.45477	26	.19892	126	.51063	37	.95838	140	.12283	17	.89061	13	57	
4	.45503	26	.19767	126	.51099	36	.95698	140	.12299	16	.89048	13	56	
5	0.45529	26	2.19642	126	0.51136	37	1.95557	140	1.12316	17	0.89035	13	55	
6	.45554	25	.19517	124	.51173	37	.95417	140	.12333	17	.89021	14	54	
7	.45580	26	.19393	124	.51209	36	.95277	140	.12349	16	.89008	13	53	
8	.45606	26	.19268	124	.51246	37	.95137	140	.12366	17	.88995	13	52	
9	.45632	26	.19144	124	.51283	37	.94997	140	.12383	17	.88981	14	51	
10	0.45658	26	2.19019	124	0.51319	36	1.94858	140	1.12400	17	0.88968	13	50	
11	.45684	26	.18895	123	.51356	36	.94718	140	.12416	16	.88955	13	49	
12	.45710	26	.18772	123	.51393	37	.94579	140	.12433	17	.88942	13	48	
13	.45736	26	.18648	123	.51430	37	.94440	140	.12450	17	.88929	14	47	
14	.45762	26	.18524	123	.51467	37	.94301	139	.12467	17	.88915	13	46	
15	0.45787	25	2.18401	123	0.51503	36	1.94162	139	1.12484	17	0.88902	13	45	
16	.45813	26	.18277	123	.51540	37	.94023	139	.12501	17	.88888	14	44	
17	.45839	26	.18154	123	.51577	37	.93885	139	.12518	17	.88875	13	43	
18	.45865	26	.18031	122	.51614	37	.93746	139	.12534	16	.88862	13	42	
19	.45891	26	.17909	122	.51651	37	.93608	139	.12551	17	.88848	14	41	
20	0.45917	26	2.17786	122	0.51688	37	1.93470	139	1.12568	17	0.88835	13	40	
21	.45942	25	.17663	122	.51724	36	.93332	138	.12585	17	.88822	13	39	
22	.45968	26	.17541	122	.51761	37	.93195	138	.12602	17	.88808	14	38	
23	.45994	26	.17419	122	.51798	37	.93057	138	.12619	17	.88795	13	37	
24	.46020	26	.17297	122	.51835	37	.92920	138	.12636	17	.88782	13	36	
25	0.46046	26	2.17175	121	0.51872	37	1.92782	138	1.12653	17	0.88768	14	35	
26	.46072	26	.17053	121	.51909	37	.92645	138	.12670	17	.88755	13	34	
27	.46097	25	.16932	121	.51946	37	.92508	137	.12687	17	.88741	14	33	
28	.46123	26	.16810	121	.51983	37	.92371	137	.12704	17	.88728	13	32	
29	.46149	26	.16689	121	.52020	37	.92235	137	.12721	17	.88715	13	31	
30	0.46175	26	2.16568	120	0.52057	37	1.92098	137	1.12738	17	0.88701	13	30	
31	.46201	26	.16447	120	.52094	37	.							



TABLE 2 Natural Trigonometric Functions														
28° →		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	← 151°	
↓	sin												↑	↑
0	0.46947		2.13005		0.53171		1.88073		1.13257		0.88295		14	60
1	.46973	26	.12889	117	.53208	37	.87941	131	.13275	18	.88281	14	59	59
2	.46999	25	.12773	117	.53246	38	.87809	131	.13292	17	.88267	14	58	58
3	.47024	26	.12657	117	.53283	37	.87677	131	.13310	18	.88254	13	57	57
4	.47050	26	.12540	117	.53320	37	.87546	131	.13327	17	.88240	14	56	56
5		26		116		38		131		18		14		
6	0.47076	25	2.12425	116	0.53358	37	1.87415	131	1.13345	17	0.88226	13	55	55
7	.47101	25	.12309	116	.53395	37	.87283	131	.13362	17	.88213	13	54	54
8	.47127	26	.12193	116	.53432	37	.87152	131	.13380	18	.88199	14	53	53
9	.47153	26	.12078	116	.53470	38	.87021	130	.13398	18	.88185	14	52	52
10	.47178	25	.11963	116	.53507	37	.86891	130	.13415	17	.88172	13	51	51
11	0.47204	26	2.11847	116	0.53545	38	1.86760	130	1.13433	18	0.88158	14	50	50
12	.47229	25	.11732	116	.53582	37	.86630	130	.13451	18	.88144	14	49	49
13	.47255	26	.11617	114	.53620	38	.86499	130	.13468	18	.88130	14	48	48
14	.47281	26	.11503	114	.53657	37	.86369	130	.13486	18	.88117	13	47	47
15	.47306	25	.11388	114	.53694	37	.86239	130	.13504	18	.88103	14	46	46
16	0.47332	26	2.11274	114	0.53732	38	1.86109	130	1.13521	17	0.88089	14	45	45
17	.47358	25	.11159	114	.53769	37	.85979	130	.13539	18	.88075	14	44	44
18	.47383	26	.11045	114	.53807	38	.85850	130	.13557	18	.88062	13	43	43
19	.47409	26	.10931	114	.53844	37	.85720	130	.13575	18	.88048	14	42	42
20	.47434	25	.10817	113	.53882	38	.85591	130	.13593	18	.88034	14	41	41
21	0.47460	26	2.10704	113	0.53920	38	1.85462	130	1.13610	17	0.88020	14	40	40
22	.47486	25	.10590	113	.53957	37	.85333	130	.13628	18	.88006	14	39	39
23	.47511	26	.10477	113	.53995	38	.85204	129	.13646	18	.87993	13	38	38
24	.47537	25	.10363	113	.54032	37	.85075	129	.13664	18	.87979	14	37	37
25	.47562	26	.10250	113	.54070	38	.84946	129	.13682	18	.87965	14	36	36
26	0.47588	26	2.10137	113	0.54107	37	1.84818	129	1.13700	18	0.87951	14	35	35
27	.47614	25	.10024	112	.54145	38	.84689	129	.13718	18	.87937	14	34	34
28	.47639	26	.09911	112	.54183	38	.84561	129	.13735	18	.87923	14	33	33
29	.47665	25	.09799	112	.54220	37	.84433	129	.13753	18	.87909	14	32	32
30	.47690	26	.09686	112	.54258	38	.84305	128	.13771	18	.87896	13	31	31
31	0.47716	26	2.09574	112	0.54296	38	1.84177	128	1.13789	18	0.87882	14	30	30
32	.47741	25	.09462	112	.54333	37	.84049	128	.13807	18	.87868	14	29	29
33	.47767	26	.09350	112	.54371	38	.83922	128	.13825	18	.87854	14	28	28
34	.47793	26	.09238	111	.54409	38	.83794	128	.13843	18	.87840	14	27	27
35	.47818	25	.09126	111	.54446	37	.83667	128	.13861	18	.87826	14	26	26
36	0.47844	26	2.09014	111	0.54484	38	1.83540	128	1.13879	18	0.87812	14	25	25
37	.47869	25	.08903	111	.54522	38	.83413	128	.13897	18	.87798	14	24	24
38	.47895	26	.08791	111	.54560	38	.83286	127	.13915	18	.87784	14	23	23
39	.47920	25	.08680	111	.54597	37	.83159	127	.13934	19	.87770	14	22	22
40	.47946	26	.08569	111	.54635	38	.83033	127	.13952	18	.87756	14	21	21
41	0.47971	25	2.08458	110	0.54673	38	1.82906	127	1.13970	18	0.87743	13	20	20
42	.47997	26	.08347	110	.54711	38	.82780	127	.13988	18	.87729	14	19	19
43	.48022	25	.08236	110	.54748	37	.82654	127	.14006	18	.87715	14	18	18
44	.48048	26	.08126	110	.54786	38	.82528	127	.14024	18	.87701	14	17	17
45	.48073	25	.08015	110	.54824	38	.82402	126	.14042	18	.87687	14	16	16
46	0.48099	26	2.07905	110	0.54862	38	1.82276	126	1.14061	19	0.87673	14	15	15
47	.48124	25	.07795	110	.54900	38	.82150	126	.14079	18	.87659	14	14	14
48	.48150	26	.07685	110	.54938	38	.82025	126	.14097	18	.87645	14	13	13
49	.48175	25	.07575	110	.54975	37	.81899	126	.14115	18	.87631	14	12	12
50	.48201	26	.07465	110	.55013	38	.81774	126	.14134	19	.87617	14	11	11
51	0.48226	25	2.07356	110	0.55051	38	1.81649	126	1.14152	18	0.87603	14	10	10
52	.48252	26	.07246	110	.55089	38	.81524	126	.14170	18	.87589	14	9	9
53	.48277	25	.07137	110	.55127	38	.81399	124	.14188	18	.87575	14	8	8
54	.48303	26	.07027	110	.55165	38	.81274	124	.14207	19	.87561	14	7	7
55	.48328	25	.06918	109	.55203	38	.81150	124	.14225	18	.87546	15	6	6
56	0.48354	26	2.06809	109	0.55241	38	1.81025	124	1.14243	18	0.87532	14	5	5
57	.48379	25	.06701	109	.55279	38	.80901	124	.14262	19	.87518	14	4	4
58	.48405	26	.06592	109	.55317	38	.80777	124	.14280	18	.87504	14	3	3
59	.48430	25	.06483	109	.55355	38	.80653	124	.14299	19	.87490	14	2	2
60	.48456	26	.06375	109	.55393	38	.80529	123	.14317	18	.87476	14	1	1
61	0.48481	25	2.06267	109	0.55431	38	1.80405	123	1.14335	18	0.87462	14	0	0
↑	cos	Diff. 1'	sec	Diff. 1'	cot	Diff. 1'	tan	Diff. 1'	csc	Diff. 1'	sin	Diff. 1'	↑	← 61°

TABLE 2 Natural Trigonometric Functions														
29° →		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	← 150°	
↓	sin												↑	↑
0	0.48481		2.06267		0.55431		1.80405		1.14335		0.87462		14	60
1	.48506	25	.06158	109	.55469	38	.80281	123	.14354	19	.87448	14	59	59
2	.48532	26	.06050	109	.55507	38	.80158	123	.14372	18	.87434	14	58	58
3	.48557	25	.05942	108	.55545	38	.80034	123	.14391	19	.87420	14	57	57
4	.48583	26	.05835	108	.55583	38	.79911	123	.14409	18	.87406	14	56	56
5		25		108		38		123		19		15		
6	0.48608	26	2.05727	108	0.55621	38	1.79788	123	1.14428	19	0.87391	14	55	55
7	.48634	26	.05619	108	.55659	38	.79665	123	.14446	18	.87377	14	54	54
8	.48659	25	.05512	108	.55697	38	.79542	122	.14465	19	.87363	14	53	53
9	.48684	25	.05405	108	.55736	39	.79419	122	.14483	18	.87349	14	52	52
10	.48710	26	.05298	108	.55774	38	.79296	122	.14502	19	.87335	14	51	51
11	0.48735	25	2.05191	108	0.55812	38	1.79174	122	1.14521	19	0.87321	14	50	50
12	.48761	26	.05084	107	.55850	38	.79051	122	.14539	18	.87306	15	49	49
13	.48786	25	.04977	107	.55888	38	.78929	122	.14558	19	.87292	14	48	48
14	.48811	25	.04870	107	.55926	38	.78807	122	.14576	18	.87278	14	47	47
15	.48837	26	.04764	107	.55964	38	.78685	122	.14595	19	.87264	14	46	46
16	0.48862	25	2.04657	107	0.56003	39	1.78563	121	1.14614	19	0.87250	14	45	45
17	.48888	26	.04551	107	.56041	38	.78441	121	.14632	18	.87235	15	44	44
18	.48913	25	.04445	107	.56079	38	.78319	121	.14651	19	.87221	14	43	43
19	.48938	25	.04339	106	.56117	38	.78198	121	.14670	19	.87207	14	42	42
20	.48964	26	.04233	106	.56156	39	.78077	121	.14689	19	.87193	14	41	41
21	0.48989	25	2.04128	106	0.56194	38	1.77955	121	1.14707	18	0.87178	15	40	40
22	.49014	26	.04022	106	.56232	38	.77834	121	.14726	19	.87164	14	39	39
23	.49040	25	.03916	106	.56270	38	.77713	121	.14745	19	.87150	14	38	38
24	.49065	25	.03811	106	.56309	39	.77592	120	.14764	19	.87136	14	37	37
25	.49090	26	.03706	106	.56347	38	.77471	120	.14782	18	.87121	15	36	36
26	0.49116	26	2.03601	106	0.56385	38	1.77351	120	1.14801	19	0.87107	14	35	35
27	.49141	25	.03496	104	.5									

TABLE 2  
Natural Trigonometric Functions

30° →		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	← 149°	
↓	sin												↑	↓
0	0.50000		2.00000		0.57735		1.73205		1.15470		0.86603		15	60
1	.50025	25	1.99899	100	.57774	39	.73089	117	.15489	19	.86588	15	59	59
2	.50050	25	.99799	100	.57813	39	.72973	117	.15509	20	.86573	15	58	58
3	.50076	26	.99698	100	.57851	38	.72857	117	.15528	19	.86559	14	57	57
4	.50101	25	.99598	100	.57890	39	.72741	116	.15548	20	.86544	15	56	56
5	0.50126	25	1.99498	100	0.57929	39	1.72625	116	1.15567	19	0.86530	14	55	55
6	.50151	25	.99398	100	.57968	39	.72509	116	.15587	20	.86515	15	54	54
7	.50176	25	.99298	100	.58007	39	.72393	116	.15606	19	.86501	14	53	53
8	.50201	26	.99198	100	.58046	39	.72278	116	.15626	20	.86486	15	52	52
9	.50227	25	.99098	100	.58085	39	.72163	116	.15645	19	.86471	15	51	51
10	0.50252	25	1.98998	100	0.58124	39	1.72047	116	1.15665	20	0.86457	14	50	50
11	.50277	25	.98899	100	.58162	38	.71932	116	.15684	19	.86442	15	49	49
12	.50302	25	.98799	100	.58201	39	.71817	116	.15704	20	.86427	15	48	48
13	.50327	25	.98700	100	.58240	39	.71702	114	.15724	20	.86413	14	47	47
14	.50352	25	.98601	100	.58279	39	.71588	114	.15743	19	.86398	15	46	46
15	0.50377	25	1.98502	100	0.58318	39	1.71473	114	1.15763	20	0.86384	14	45	45
16	.50403	26	.98403	99	.58357	39	.71358	114	.15782	19	.86369	15	44	44
17	.50428	25	.98304	99	.58396	39	.71244	114	.15802	20	.86354	15	43	43
18	.50453	25	.98205	99	.58435	39	.71129	114	.15822	20	.86340	14	42	42
19	.50478	25	.98107	99	.58474	39	.71015	114	.15841	19	.86325	15	41	41
20	0.50503	25	1.98008	99	0.58513	39	1.70901	114	1.15861	20	0.86310	15	40	40
21	.50528	25	.97910	99	.58552	39	.70787	113	.15881	20	.86295	15	39	39
22	.50553	25	.97811	99	.58591	39	.70673	113	.15901	20	.86281	14	38	38
23	.50578	25	.97713	99	.58630	39	.70560	113	.15920	19	.86266	15	37	37
24	.50603	25	.97615	99	.58670	39	.70446	113	.15940	20	.86251	15	36	36
25	0.50628	26	1.97517	98	0.58709	39	1.70332	113	1.15960	20	0.86237	14	35	35
26	.50654	26	.97420	98	.58748	39	.70219	113	.15980	20	.86222	15	34	34
27	.50679	25	.97322	98	.58787	39	.70106	113	.16000	20	.86207	15	33	33
28	.50704	25	.97224	98	.58826	39	.69992	113	.16019	19	.86192	15	32	32
29	.50729	25	.97127	98	.58865	39	.69879	112	.16039	20	.86178	14	31	31
30	0.50754	25	1.97029	98	0.58905	40	1.69766	112	1.16059	20	0.86163	15	30	30
31	.50779	25	.96932	98	.58944	39	.69653	112	.16079	20	.86148	15	29	29
32	.50804	25	.96835	98	.58983	39	.69541	112	.16099	20	.86133	15	28	28
33	.50829	25	.96738	98	.59022	39	.69428	112	.16119	19	.86119	14	27	27
34	.50854	25	.96641	97	.59061	39	.69316	112	.16139	20	.86104	15	26	26
35	0.50879	25	1.96544	97	0.59101	39	1.69203	112	1.16159	20	0.86089	15	25	25
36	.50904	25	.96448	97	.59140	39	.69091	112	.16179	20	.86074	15	24	24
37	.50929	25	.96351	97	.59179	39	.68979	112	.16199	20	.86059	15	23	23
38	.50954	25	.96255	97	.59218	39	.68866	112	.16219	20	.86045	14	22	22
39	.50979	25	.96158	97	.59258	40	.68754	111	.16239	20	.86030	15	21	21
40	0.51004	25	1.96062	97	0.59297	39	1.68643	111	1.16259	20	0.86015	15	20	20
41	.51029	25	.95966	97	.59336	39	.68531	111	.16279	20	.86000	15	19	19
42	.51054	25	.95870	97	.59376	40	.68419	111	.16299	20	.85985	15	18	18
43	.51079	25	.95774	96	.59415	39	.68308	111	.16319	20	.85970	15	17	17
44	.51104	25	.95678	96	.59454	39	.68196	111	.16339	20	.85956	14	16	16
45	0.51129	25	1.95583	96	0.59494	40	1.68085	111	1.16359	20	0.85941	15	15	15
46	.51154	25	.95487	96	.59533	39	.67974	111	.16380	21	.85926	15	14	14
47	.51179	25	.95392	96	.59573	40	.67863	111	.16400	20	.85911	15	13	13
48	.51204	25	.95296	96	.59612	39	.67752	111	.16420	20	.85896	15	12	12
49	.51229	25	.95201	96	.59651	40	.67641	110	.16440	20	.85881	15	11	11
50	0.51254	25	1.95106	96	0.59691	40	1.67530	110	1.16460	20	0.85866	15	10	10
51	.51279	25	.95011	96	.59730	39	.67419	110	.16481	21	.85851	15	9	9
52	.51304	25	.94916	96	.59770	40	.67309	110	.16501	20	.85836	15	8	8
53	.51329	25	.94821	94	.59809	39	.67198	110	.16521	20	.85821	15	7	7
54	.51354	25	.94726	94	.59849	40	.67088	110	.16541	20	.85806	15	6	6
55	0.51379	25	1.94632	94	0.59888	39	1.66978	110	1.16562	21	0.85792	14	5	5
56	.51404	25	.94537	94	.59928	40	.66867	110	.16582	20	.85777	15	4	4
57	.51429	25	.94443	94	.59967	39	.66757	110	.16602	20	.85762	15	3	3
58	.51454	25	.94349	94	.60007	40	.66647	110	.16623	21	.85747	15	2	2
59	.51479	25	.94254	94	.60046	39	.66538	110	.16643	20	.85732	15	1	1
60	0.51504	25	1.94160	94	0.60086	40	1.66428	110	1.16663	20	0.85717	15	0	0
↑	120° →	Diff. 1'	sec	Diff. 1'	cot	Diff. 1'	tan	Diff. 1'	csc	Diff. 1'	sin	Diff. 1'	↑	59°

TABLE 2  
Natural Trigonometric Functions

31° →		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	← 148°	
↓	sin												↑	↓
0	0.51504		1.94160		0.60086		1.66428		1.16663		0.85717		15	60
1	.51529	25	.94066	93	.60126	40	.66318	110	.16684	21	.85702	15	59	59
2	.51554	25	.93973	93	.60165	39	.66209	110	.16704	20	.85687	15	58	58
3	.51579	25	.93879	93	.60205	40	.66099	110	.16725	21	.85672	15	57	57
4	.51604	25	.93785	93	.60245	40	.65990	110	.16745	20	.85657	15	56	56
5	0.51628	24	1.93692	93	0.60284	39	1.65881	110	1.16766	21	0.85642	15	55	55
6	.51653	25	.93598	93	.60324	40	.65772	110	.16786	20	.85627	15	54	54
7	.51678	25	.93505	93	.60364	40	.65663	109	.16806	20	.85612	15	53	53
8	.51703	25	.93412	93	.60403	39	.65554	109	.16827	21	.85597	15	52	52
9	.51728	25	.93319	93	.60443	40	.65445	109	.16848	21	.85582	15	51	51
10	0.51753	25	1.93226	92	0.60483	40	1.65337	109	1.16868	20	0.85567	15	50	50
11	.51778	25	.93133	92	.60522	39	.65228	109	.16889	21	.85552	16	49	49
12	.51803	25	.93040	92	.60562	40	.65120	109	.16909	20	.85536	15	48	48
13	.51828	25	.92947	92	.60602	40	.65011	109	.16930	21	.85521	15	47	47
14	.51852	24	.92855	92	.60642	40	.64903	109	.16950	20	.85506	15	46	46
15	0.51877	25	1.92762	92	0.60681	39	1.64795	109	1.16971	21	0.85491	15	45	45
16	.51902	25	.92670	92	.60721	40	.64687	109	.16992	21	.85476	15	44	44
17	.51927	25	.92578	92	.60761	40	.64579	108	.17012	20	.85461	15	43	43
18	.51952	25	.92486	92	.60801	40	.64471	108	.17033	21	.85446	15	42	42
19	.51977	25	.92394	92	.60841	40	.64363	108	.17054	21	.85431	15	41	41
20	0.52002	25	1.92302	91	0.60881	40	1.64256	108	1.17075	21	0.85416	15	40	40
21	.52026	24	.92210	91	.60921	40	.64148	108	.17095	20	.85401	15	39	39
22	.52051	25	.92118	91	.60960	39	.64041	108	.17116	21	.85385	16	38	38
23	.52076	25	.92027	91	.61000	40	.63934	108	.17137	21	.85370	15	37	37
24	.52101	25	.91935	91	.61040	40	.63826	108	.17158	21	.85355	15	36	36
25	0.52126	25	1.91844	91	0.61080	40	1.63719	108	1.17178	20	0.85340	15	35	35
26	.52151	25	.91752	91	.61120	40	.63612	108	.17199	21	.85325	15	34	34
27	.52175	24	.91661	91	.61160	40	.63505	107	.17220					

**TABLE 2**  
Natural Trigonometric Functions

32° →		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	← 147°	
↓	sin												↑	↑
0	0.52992		1.88708		0.62487		1.60033		1.17918		0.84805		16	60
1	.53017	25	.88620	88	.62527	40	.59930	103	.17939	21	.84789	16	59	59
2	.53041	24	.88532	88	.62568	41	.59826	103	.17961	21	.84774	15	58	58
3	.53066	25	.88445	88	.62608	40	.59723	103	.17982	21	.84759	15	57	57
4	.53091	24	.88357	88	.62649	41	.59620	103	.18004	22	.84743	16	56	56
5		40		88		103				21		15	55	55
6	0.53115	25	1.88270	88	0.62689	41	1.59517	103	1.18025	22	0.84728	16	54	54
7	.53140	24	.88183	88	.62730	41	.59414	103	.18047	22	.84712	16	53	53
8	.53164	25	.88095	88	.62770	40	.59311	102	.18068	21	.84697	15	52	52
9	.53189	24	.88008	88	.62811	41	.59208	102	.18090	22	.84681	16	51	51
10	.53214	25	.87921	88	.62852	41	.59105	102	.18111	21	.84666	15	50	50
11		40		87		102				22		16	50	50
12	0.53238	24	1.87834	87	0.62892	40	1.59002	102	1.18133	22	0.84650	16	49	49
13	.53263	25	.87748	87	.62933	41	.58900	102	.18155	22	.84635	15	48	48
14	.53288	24	.87661	87	.62973	40	.58797	102	.18176	21	.84619	15	47	47
15	.53312	25	.87574	87	.63014	41	.58695	102	.18198	22	.84604	15	46	46
16	.53337	24	.87488	87	.63055	41	.58593	102	.18220	21	.84588	16	45	45
17		40		87		102				22		15	45	45
18	0.53361	24	1.87401	87	0.63095	40	1.58490	102	1.18241	21	0.84573	15	44	44
19	.53386	25	.87315	87	.63136	41	.58388	102	.18263	22	.84557	16	43	43
20	.53410	24	.87229	87	.63177	40	.58286	102	.18285	22	.84542	15	42	42
21	.53435	25	.87142	87	.63217	40	.58184	101	.18307	22	.84526	16	41	41
22	.53460	24	.87056	87	.63258	41	.58083	101	.18328	21	.84511	15	40	40
23		40		86		101				22		16	40	40
24	0.53484	24	1.86970	86	0.63299	41	1.57981	101	1.18350	22	0.84495	16	39	39
25	.53509	25	.86885	86	.63340	41	.57879	101	.18372	22	.84480	15	38	38
26	.53534	24	.86799	86	.63380	40	.57778	101	.18394	22	.84464	16	37	37
27	.53558	25	.86713	86	.63421	41	.57676	101	.18416	21	.84448	15	36	36
28	.53583	24	.86627	86	.63462	41	.57575	101	.18437	21	.84433	16	35	35
29		40		86		101				22		15	35	35
30	0.53607	24	1.86542	86	0.63503	41	1.57474	101	1.18459	22	0.84417	16	34	34
31	.53632	25	.86457	86	.63544	41	.57372	101	.18481	22	.84402	15	33	33
32	.53656	24	.86371	86	.63584	40	.57271	101	.18503	22	.84386	16	32	32
33	.53681	25	.86286	86	.63625	41	.57170	100	.18525	22	.84370	16	31	31
34	.53705	24	.86201	86	.63666	41	.57069	100	.18547	22	.84355	15	30	30
35		40		86		100				22		16	30	30
36	0.53730	24	1.86116	86	0.63707	41	1.56969	100	1.18569	22	0.84339	16	29	29
37	.53754	25	.86031	84	.63748	41	.56868	100	.18591	22	.84324	15	28	28
38	.53779	24	.85946	84	.63789	41	.56767	100	.18613	22	.84308	16	27	27
39	.53804	25	.85861	84	.63830	41	.56667	100	.18635	22	.84292	16	26	26
40	.53828	24	.85777	84	.63871	41	.56566	100	.18657	22	.84277	15	25	25
41		40		84		100				22		16	25	25
42	0.53853	24	1.85692	84	0.63912	41	1.56466	100	1.18679	22	0.84261	16	24	24
43	.53877	25	.85608	84	.63953	41	.56366	100	.18701	22	.84245	15	23	23
44	.53902	24	.85523	84	.63994	41	.56265	100	.18723	22	.84230	16	22	22
45	.53926	25	.85439	84	.64035	41	.56165	100	.18745	22	.84214	16	21	21
46	.53951	24	.85355	84	.64076	41	.56065	100	.18767	22	.84198	16	20	20
47		40		84		100				22		15	20	20
48	0.53975	24	1.85271	84	0.64117	41	1.55966	100	1.18790	23	0.84182	16	19	19
49	.54000	25	.85187	84	.64158	41	.55866	100	.18812	22	.84167	16	18	18
50	.54024	24	.85103	83	.64199	41	.55766	100	.18834	22	.84151	16	17	17
51	.54049	25	.85019	83	.64240	41	.55666	100	.18856	22	.84135	16	16	16
52	.54073	24	.84935	83	.64281	41	.55567	100	.18878	22	.84120	15	15	15
53		40		83		100				22		16	15	15
54	0.54097	24	1.84852	83	0.64322	41	1.55467	100	1.18901	23	0.84104	16	14	14
55	.54122	25	.84768	83	.64363	41	.55367	100	.18923	22	.84088	16	13	13
56	.54146	24	.84685	83	.64404	41	.55269	100	.18945	22	.84072	16	12	12
57	.54171	25	.84601	83	.64446	42	.55170	100	.18967	22	.84057	15	11	11
58	.54195	24	.84518	83	.64487	41	.55071	100	.18990	23	.84041	16	10	10
59		40		83		100				22		16	10	10
60	0.54220	24	1.84435	83	0.64528	41	1.54972	99	1.19012	22	0.84025	16	9	9
1	.54244	25	.84352	83	.64569	41	.54873	99	.19034	22	.84009	16	8	8
2	.54269	24	.84269	83	.64610	41	.54774	99	.19057	23	.83994	15	7	7
3	.54293	25	.84186	82	.64652	42	.54675	99	.19079	22	.83978	16	6	6
4	.54317	24	.84103	82	.64693	41	.54576	99	.19102	23	.83962	16	5	5
5		40		82		99				22		16	5	5
6	0.54342	24	1.84020	82	0.64734	41	1.54478	99	1.19124	22	0.83946	16	4	4
7	.54366	25	.83938	82	.64775	41	.54379	99	.19146	22	.83930	16	3	3
8	.54391	24	.83855	82	.64817	42	.54281	99	.19169	23	.83915	15	2	2
9	.54415	25	.83773	82	.64858	41	.54183	99	.19191	22	.83899	16	1	1
10	.54440	24	.83690	82	.64899	41	.54085	99	.19214	23	.83883	16	0	0
11	0.54464	24	1.83608	82	0.64941	42	1.53986	99	1.19236	22	0.83867	16	0	0

**TABLE 2**  
Natural Trigonometric Functions

33° →		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	← 146°	
↓	sin												↑	↑
0	0.54464		1.83608		0.64941		1.53986		1.19236		0.83867		16	60
1	.54489	24	.83526	82	.64982	41	.53888	99	.19259	23	.83851	16	59	59
2	.54513	25	.83444	82	.65024	42	.53791	98	.19281	22	.83835	16	58	58
3	.54537	24	.83362	82	.65065	41	.53693	98	.19304	23	.83819	16	57	57
4	.54561	24	.83280	81	.65106	41	.53595	98	.19327	23	.83804	15	56	56
5		40		81		42		98		22		16	55	55
6	0.54586	25	1.83198	81	0.65148	41	1.53497	98	1.19349	23	0.83788	16	54	54
7	.54610	24	.83116	81	.65189	41	.53400	98	.19372	23	.83772	16	53	53
8	.54635	25	.83034	81	.65231	42	.53302	98	.19394	22	.83756	16	52	52
9	.54659	24	.82953	81	.65272	41	.53205	98	.19417	23	.83740	16	51	51
10	.54683	24	.82871	81	.65314	42	.53107	98	.19440	23	.83724	16	50	50
11		40		81		42		98		22		16	50	50
12	0.54708	25	1.82790	81	0.65355	42	1.53010	98	1.19463	23	0.83708	16	49	49
13	.54732	24	.82709	81	.65397	42	.52913	98	.19485	22	.83692	16	48	48
14	.54756	24	.82627	81	.65438	41	.52816	98	.19508	23	.83676	16	47	47
15	.54781	25	.82546	81	.65480	42	.52719	97	.19531	23	.83660	16	46	46
16	.54805	24	.82465	81	.65521	41	.52622	97	.19553	22	.83645	15	45	45
17		40		80		42		97		23		16	45	45
18	0.54829	24	1.82384	80	0.65563	42	1.52525	97	1.19576	22	0.83629	16	44	44
19	.54854	25	.82303	80	.65604	41	.52429	97	.19599	23	.83613	16	43	43
20	.54878	24	.82222	80	.65646	42	.52332	97	.19622	23	.83597	16	42	42
21	.54902	24	.82142	80	.65688	42	.52235	97	.19645	23	.83581	16	41	41
22	.54927	25	.82061	80	.65729	41	.52139	97	.19668	23	.83565			

TABLE 2  
Natural Trigonometric Functions

Table with columns for angles 34° and 145°, and rows for trigonometric functions: sin, Diff. 1', csc, Diff. 1', tan, Diff. 1', cot, Diff. 1', sec, Diff. 1', cos, Diff. 1'. Includes values for angles 0 to 60 and 124° to 55°.

TABLE 2  
Natural Trigonometric Functions

Table with columns for angles 35° and 144°, and rows for trigonometric functions: sin, Diff. 1', csc, Diff. 1', tan, Diff. 1', cot, Diff. 1', sec, Diff. 1', cos, Diff. 1'. Includes values for angles 0 to 60 and 125° to 54°.

**TABLE 2**  
Natural Trigonometric Functions

36° →		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	← 143°	
↓	sin												↑	↓
0	0.58779		1.70130		0.72654		1.37638		1.23607		0.80902		17	60
1	.58802	23	.70062	69	.72699	45	.37554	84	.23754	26	.80885	17	59	59
2	.58826	24	.69994	68	.72743	44	.37470	84	.23659	26	.80867	18	58	58
3	.58849	23	.69926	69	.72788	45	.37386	84	.23685	26	.80850	17	57	57
4	.58873	24	.69858	68	.72832	44	.37302	83	.23711	26	.80833	17	56	56
5	.58896	23	.69790	68	.72877	45	.37218	83	.23738	27	.80816	17	55	55
6	.58920	24	.69723	68	.72921	44	.37134	83	.23764	26	.80799	17	54	54
7	.58943	23	.69655	68	.72966	45	.37050	83	.23790	26	.80782	17	53	53
8	.58967	24	.69587	68	.73010	44	.36967	83	.23816	26	.80765	17	52	52
9	.58990	23	.69520	68	.73055	45	.36883	83	.23843	27	.80748	17	51	51
10	.59014	24	.69452	68	.73100	44	.36800	83	.23869	26	.80730	18	50	50
11	.59037	23	.69385	68	.73144	45	.36716	83	.23895	26	.80713	17	49	49
12	.59061	24	.69318	68	.73189	44	.36633	83	.23922	27	.80696	17	48	48
13	.59084	23	.69250	68	.73234	45	.36549	83	.23948	26	.80679	17	47	47
14	.59108	24	.69183	68	.73278	44	.36466	83	.23975	27	.80662	17	46	46
15	.59131	23	.69116	68	.73323	45	.36383	83	.24001	26	.80644	18	45	45
16	.59154	24	.69049	68	.73368	44	.36300	83	.24028	27	.80627	17	44	44
17	.59178	23	.68982	67	.73413	45	.36217	83	.24054	26	.80610	17	43	43
18	.59201	24	.68915	67	.73457	44	.36134	83	.24081	27	.80593	17	42	42
19	.59225	23	.68848	67	.73502	45	.36051	82	.24107	26	.80576	17	41	41
20	.59248	24	.68782	67	.73547	44	.35968	82	.24134	27	.80558	18	40	40
21	.59272	23	.68715	67	.73592	45	.35885	82	.24160	26	.80541	17	39	39
22	.59295	24	.68648	67	.73637	44	.35802	82	.24187	27	.80524	17	38	38
23	.59318	23	.68582	67	.73681	45	.35719	82	.24213	26	.80507	17	37	37
24	.59342	24	.68515	67	.73726	44	.35637	82	.24240	27	.80489	18	36	36
25	.59365	23	.68449	67	.73771	45	.35554	82	.24267	26	.80472	17	35	35
26	.59389	24	.68382	67	.73816	44	.35472	82	.24293	27	.80455	17	34	34
27	.59412	23	.68316	67	.73861	45	.35389	82	.24320	26	.80438	17	33	33
28	.59436	24	.68250	67	.73906	44	.35307	82	.24347	27	.80420	18	32	32
29	.59459	23	.68183	67	.73951	45	.35224	82	.24373	26	.80403	17	31	31
30	.59482	24	.68117	67	.73996	44	.35142	82	.24400	27	.80386	17	30	30
31	.59506	23	.68051	67	.74041	45	.35060	82	.24427	26	.80368	18	29	29
32	.59529	24	.67985	66	.74086	44	.34978	82	.24454	27	.80351	17	28	28
33	.59552	23	.67919	66	.74131	45	.34896	82	.24481	26	.80334	17	27	27
34	.59576	24	.67853	66	.74176	44	.34814	81	.24508	27	.80316	18	26	26
35	.59599	23	.67788	66	.74221	45	.34732	81	.24534	26	.80299	17	25	25
36	.59622	24	.67722	66	.74267	44	.34650	81	.24561	27	.80282	17	24	24
37	.59646	23	.67656	66	.74312	45	.34568	81	.24588	27	.80264	18	23	23
38	.59669	24	.67591	66	.74357	44	.34487	81	.24615	27	.80247	17	22	22
39	.59693	23	.67525	66	.74402	45	.34405	81	.24642	26	.80230	17	21	21
40	.59716	24	.67460	66	.74447	44	.34323	81	.24669	27	.80212	18	20	20
41	.59739	23	.67394	66	.74492	45	.34242	81	.24696	27	.80195	17	19	19
42	.59763	24	.67329	66	.74538	44	.34160	81	.24723	27	.80178	17	18	18
43	.59786	23	.67264	66	.74583	45	.34079	81	.24750	27	.80160	18	17	17
44	.59809	24	.67198	66	.74628	44	.33998	81	.24777	27	.80143	17	16	16
45	.59832	23	.67133	66	.74674	45	.33916	81	.24804	27	.80125	18	15	15
46	.59856	24	.67068	66	.74719	44	.33835	81	.24832	28	.80108	17	14	14
47	.59879	23	.67003	66	.74764	45	.33754	81	.24859	27	.80091	17	13	13
48	.59902	24	.66938	64	.74810	44	.33673	81	.24886	27	.80073	18	12	12
49	.59926	23	.66873	64	.74855	45	.33592	81	.24913	27	.80056	17	11	11
50	.59949	24	.66809	64	.74900	44	.33511	80	.24940	27	.80038	18	10	10
51	.59972	23	.66744	64	.74946	45	.33430	80	.24967	27	.80021	17	9	9
52	.59995	24	.66679	64	.74991	44	.33349	80	.24995	28	.80003	18	8	8
53	.60019	23	.66615	64	.75037	45	.33268	80	.25022	27	.79986	17	7	7
54	.60042	24	.66550	64	.75082	44	.33187	80	.25049	27	.79968	18	6	6
55	.60065	23	.66486	64	.75128	45	.33107	80	.25077	28	.79951	17	5	5
56	.60089	24	.66421	64	.75173	44	.33026	80	.25104	27	.79934	17	4	4
57	.60112	23	.66357	64	.75219	45	.32946	80	.25131	27	.79916	18	3	3
58	.60135	24	.66292	64	.75264	44	.32865	80	.25159	28	.79899	17	2	2
59	.60158	23	.66228	64	.75310	45	.32785	80	.25186	27	.79881	18	1	1
60	.60182	24	.66164	64	.75355	44	.32704	80	.25214	28	.79864	17	0	0

**TABLE 2**  
Natural Trigonometric Functions

37° →		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	← 142°	
↓	sin												↑	↓
0	0.60182		1.66164		0.75355		1.32704		1.25214		0.79864		18	60
1	.60205	23	.66100	64	.75401	46	.32624	80	.25241	27	.79846	18	59	59
2	.60228	23	.66036	64	.75447	46	.32544	80	.25269	28	.79829	17	58	58
3	.60251	23	.65972	63	.75492	45	.32464	80	.25296	27	.79811	18	57	57
4	.60274	23	.65908	63	.75538	46	.32384	80	.25324	28	.79793	18	56	56
5	.60298	24	.65844	63	.75584	46	.32304	80	.25351	27	.79776	17	55	55
6	.60321	23	.65780	63	.75629	45	.32224	80	.25379	28	.79758	18	54	54
7	.60344	23	.65717	63	.75675	46	.32144	80	.25406	27	.79741	17	53	53
8	.60367	23	.65653	63	.75721	46	.32064	80	.25434	28	.79723	18	52	52
9	.60390	23	.65589	63	.75767	46	.31984	80	.25462	28	.79706	17	51	51
10	.60414	24	.65526	63	.75812	45	.31904	80	.25489	27	.79688	18	50	50
11	.60437	23	.65462	63	.75858	46	.31825	80	.25517	28	.79671	17	49	49
12	.60460	23	.65399	63	.75904	46	.31745	80	.25545	28	.79653	18	48	48
13	.60483	23	.65335	63	.75950	46	.31666	80	.25572	27	.79635	18	47	47
14	.60506	23	.65272	63	.75996	46	.31586	80	.25600	28	.79618	17	46	46
15	.60529	23	.65209	63	.76042	46	.31507	80	.25628	28	.79600	18	45	45
16	.60553	24	.65146	63	.76088	46	.31427	80	.25656	28	.79583	17	44	44
17	.60576	23	.65083	63	.76134	46	.31348	80	.25683	27	.79565	18	43	43
18	.60599	23	.65020	63	.76180	46	.31269	80	.25711	28	.79547	18	42	42
19	.60622	23	.64957	62	.76226	46	.31190	80	.25739	28	.79530	17	41	41
20	.60645	23	.64894	62	.76272	46	.31110	80	.25767	28	.79512	18	40	40
21	.60668	23	.64831	62	.76318	46	.31031	80	.25795	28	.79494	17	39	39
22	.60691	23	.64768	62	.76364	46	.30952	80	.25823	28	.79477	17	38	38
23	.60714	24	.64705	62	.76410	46	.30873	79	.25851	28	.79459	18	37	37
24	.60738	24	.64643	62	.76456	46	.30795	79	.25879	28	.79441	18	36	36
25	.60761	23	.64580	62	.76502	46	.30716	79	.25907	28	.79424	17	35	35
26	.60784	23	.64518	62	.76548	46	.30637	79	.25935	28	.79406	18	34	34
27	.60807	23	.64455	62	.76594	46	.30558	79	.25963	28	.79388	18	33	33
28	.60830	23	.64393	62	.76640	46	.30480	79	.25991	28	.79371	17	32	32
29	.60853	23	.64330	62	.76686	46	.30401	79	.26019	28	.79353	18	31	31
30	.60876	23	.64268	62	.76733	47	.30323	79	.26047	28	.79335	18	30	30
31	.60899	23	.64206	62	.76779</									

TABLE 2  
Natural Trigonometric Functions

Table with columns for angles 38° to 141°, trigonometric functions (sin, csc, tan, cot, sec, cos), and their differences. Includes a section for 128° to 51° at the bottom.

TABLE 2  
Natural Trigonometric Functions

Table with columns for angles 39° to 140°, trigonometric functions (sin, csc, tan, cot, sec, cos), and their differences. Includes a section for 129° to 50° at the bottom.

TABLE 2 Natural Trigonometric Functions												
40° →						← 139°						
↓	sin	Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1' ↓
0	0.64279		1.55572		0.83910		1.19175		1.30541		0.76604	
1	.64301	22	.55518	53	.83960	50	.19105	70	.30573	32	.76586	18
2	.64323	22	.55465	53	.84009	49	.19035	70	.30605	32	.76567	19
3	.64346	23	.55411	53	.84059	50	.18964	70	.30636	31	.76548	19
4	.64368	22	.55357	53	.84108	49	.18894	70	.30668	32	.76530	18
5	0.64390		1.55303		0.84158		1.18824		1.30700		0.76511	
6	.64412	22	.55250	53	.84208	50	.18754	70	.30732	32	.76492	19
7	.64435	23	.55196	53	.84258	50	.18684	70	.30764	32	.76473	19
8	.64457	22	.55143	53	.84307	49	.18614	70	.30796	32	.76455	18
9	.64479	22	.55089	53	.84357	50	.18544	70	.30829	33	.76436	19
10	0.64501		1.55036		0.84407		1.18474		1.30861		0.76417	
11	.64524	23	.54982	53	.84457	50	.18404	70	.30893	32	.76398	19
12	.64546	22	.54929	53	.84507	50	.18334	70	.30925	32	.76380	18
13	.64568	22	.54876	53	.84556	49	.18264	70	.30957	32	.76361	19
14	.64590	22	.54822	53	.84606	50	.18194	70	.30989	32	.76342	19
15	0.64612		1.54769		0.84656		1.18125		1.31022		0.76323	
16	.64635	23	.54716	53	.84706	50	.18055	70	.31054	32	.76304	19
17	.64657	22	.54663	53	.84756	50	.17986	70	.31086	32	.76286	18
18	.64679	22	.54610	53	.84806	50	.17916	70	.31119	33	.76267	19
19	.64701	22	.54557	53	.84856	50	.17846	70	.31151	32	.76248	19
20	0.64723		1.54504		0.84906		1.17777		1.31183		0.76229	
21	.64746	23	.54451	52	.84956	50	.17708	70	.31216	33	.76210	19
22	.64768	22	.54398	52	.85006	50	.17638	70	.31248	32	.76192	18
23	.64790	22	.54345	52	.85057	51	.17569	70	.31281	33	.76173	19
24	.64812	22	.54292	52	.85107	50	.17500	70	.31313	32	.76154	19
25	0.64834		1.54240		0.85157		1.17430		1.31346		0.76135	
26	.64856	22	.54187	52	.85207	50	.17361	70	.31378	32	.76116	19
27	.64878	22	.54134	52	.85257	50	.17292	70	.31411	33	.76097	19
28	.64901	23	.54082	52	.85308	51	.17223	70	.31443	32	.76078	19
29	.64923	22	.54029	52	.85358	50	.17154	70	.31476	33	.76059	19
30	0.64945		1.53977		0.85408		1.17085		1.31509		0.76041	
31	.64967	22	.53924	52	.85458	50	.17016	69	.31541	32	.76022	19
32	.64989	22	.53872	52	.85509	51	.16947	69	.31574	33	.76003	19
33	.65011	22	.53820	52	.85559	50	.16878	69	.31607	33	.75984	19
34	.65033	22	.53768	52	.85609	50	.16809	69	.31640	33	.75965	19
35	0.65055		1.53715		0.85660		1.16741		1.31672		0.75946	
36	.65077	22	.53663	52	.85710	50	.16672	69	.31705	33	.75927	19
37	.65100	23	.53611	52	.85761	51	.16603	69	.31738	33	.75908	19
38	.65122	22	.53559	52	.85811	50	.16535	69	.31771	33	.75889	19
39	.65144	22	.53507	52	.85862	51	.16466	69	.31804	33	.75870	19
40	0.65166		1.53455		0.85912		1.16398		1.31837		0.75851	
41	.65188	22	.53403	51	.85963	51	.16329	69	.31870	33	.75832	19
42	.65210	22	.53351	51	.86014	51	.16261	69	.31903	33	.75813	19
43	.65232	22	.53299	51	.86064	50	.16192	69	.31936	33	.75794	19
44	.65254	22	.53247	51	.86115	51	.16124	69	.31969	33	.75775	19
45	0.65276		1.53196		0.86166		1.16056		1.32002		0.75756	
46	.65298	22	.53144	51	.86216	50	.15987	69	.32035	33	.75738	18
47	.65320	22	.53092	51	.86267	51	.15919	69	.32068	33	.75719	19
48	.65342	22	.53040	51	.86318	51	.15851	69	.32101	33	.75700	19
49	.65364	22	.52989	51	.86368	50	.15783	69	.32134	33	.75680	20
50	0.65386		1.52938		0.86419		1.15715		1.32168		0.75661	
51	.65408	22	.52886	51	.86470	51	.15647	69	.32201	34	.75642	19
52	.65430	22	.52835	51	.86521	51	.15579	68	.32234	33	.75623	19
53	.65452	22	.52784	51	.86572	51	.15511	68	.32267	33	.75604	19
54	.65474	22	.52732	51	.86623	51	.15443	68	.32301	34	.75585	19
55	0.65496		1.52681		0.86674		1.15375		1.32334		0.75566	
56	.65518	22	.52630	51	.86725	51	.15308	68	.32368	34	.75547	19
57	.65540	22	.52579	51	.86776	51	.15240	68	.32401	33	.75528	19
58	.65562	22	.52527	51	.86827	51	.15172	68	.32434	33	.75509	19
59	.65584	22	.52476	51	.86878	51	.15104	68	.32468	34	.75490	19
60	0.65606		1.52425		0.86929		1.15037		1.32501		0.75471	
↑		Diff. 1'		Diff. 1'		Diff. 1'		Diff. 1'		Diff. 1'		↑
130° →						← 49°						
↓	cos	Diff. 1'	sec	Diff. 1'	cot	Diff. 1'	tan	Diff. 1'	csc	Diff. 1'	sin	Diff. 1' ←

TABLE 2 Natural Trigonometric Functions												
41° →						← 138°						
↓	sin	Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1' ↓
0	0.65606		1.52425		0.86929		1.15037		1.32501		0.75471	
1	.65628	22	.52374	50	.86980	51	.14969	68	.32535	34	.75452	19
2	.65650	22	.52323	50	.87031	51	.14902	68	.32568	33	.75433	19
3	.65672	22	.52273	50	.87082	51	.14834	68	.32602	34	.75414	19
4	.65694	22	.52222	50	.87133	51	.14767	68	.32636	34	.75395	19
5	0.65716		1.52171		0.87184		1.14699		1.32669		0.75375	
6	.65738	22	.52120	50	.87236	52	.14632	68	.32703	34	.75356	19
7	.65759	21	.52069	50	.87287	51	.14565	68	.32737	34	.75337	19
8	.65781	22	.52019	50	.87338	51	.14498	68	.32770	33	.75318	19
9	.65803	22	.51968	50	.87389	51	.14430	68	.32804	34	.75299	19
10	0.65825		1.51918		0.87441		1.14363		1.32838		0.75280	
11	.65847	22	.51867	50	.87492	51	.14296	68	.32872	34	.75261	19
12	.65869	22	.51817	50	.87543	51	.14229	68	.32905	33	.75242	19
13	.65891	22	.51766	50	.87595	52	.14162	68	.32939	34	.75222	19
14	.65913	22	.51716	50	.87646	52	.14095	67	.32973	34	.75203	19
15	0.65935		1.51665		0.87698		1.14028		1.33007		0.75184	
16	.65956	21	.51615	50	.87749	51	.13961	67	.33041	34	.75165	19
17	.65978	22	.51565	50	.87801	52	.13894	67	.33075	34	.75146	19
18	.66000	22	.51515	50	.87852	51	.13828	67	.33109	34	.75126	20
19	.66022	22	.51465	50	.87904	52	.13761	67	.33143	34	.75107	19
20	0.66044		1.51415		0.87955		1.13694		1.33177		0.75088	
21	.66066	22	.51364	50	.88007	52	.13627	67	.33211	34	.75069	19
22	.66088	22	.51314	50	.88059	52	.13561	67	.33245	34	.75050	19
23	.66109	21	.51265	50	.88110	51	.13494	67	.33279	34	.75030	20
24	.66131	22	.51215	50	.88162	52	.13428	67	.33314	35	.75011	19
25	0.66153		1.51165		0.88214		1.13361		1.33348		0.74992	
26	.66175	22	.51115	50	.88265	51	.13295	67	.33382	34	.74973	19
27	.66197	22	.51065	50	.88317	52	.13228	67	.33416	34	.74953	20
28	.66218	21	.51015	50	.88369	52	.13162	67	.33451	35	.74934	19
29	.66240	22	.50966	50	.88421	52	.13096	67	.33485	34	.74915	19
30	0.66262		1.50916		0.88473		1.13029		1.33519		0.74896	
31	.66284	22	.50866	50	.88524	51	.12963	67	.33554	35	.74877	19
32	.66306	22	.50817	50	.88576	52	.12897	67	.33588	34	.74857	20
33	.66327	21	.50767	50	.88628	52	.12831	67	.33622	34	.74838	19
34	.66349	22	.50718	50	.88680	52	.12765	67	.33657	35	.74818	20
35	0.66371		1.50669		0.88732		1.12699		1.33691		0.74799	
36	.66393	22	.50619	50	.88784	52	.12633	67	.33726	35	.74780	19
37	.66414	21	.50570	50	.88836	52	.12567	66	.33760	34	.74760	20
38	.66436	22	.50521	50	.88888	52	.12501	66	.33795	35	.74741	19
39	.66458	22	.50471	50	.88940	52	.12435	66	.33830	35	.74722	19
40	0.66480		1.50422		0.88992		1.12369		1.33864		0.74703	
41	.66501	22	.50373	50	.89045	53	.12303	66	.33899	35	.74684	19
42	.66523	22	.50324	50	.89097	52	.12238	6				

TABLE 2  
Natural Trigonometric Functions

42° →		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	← 137°	
↓	sin											↑	↑
0	0.66913	22	1.49448	49	0.90040	53	1.11061	64	1.34563	36	0.74314	19	60
1	.66935	21	.49399	49	.90093	53	.10996	64	.34599	35	.74295	19	59
2	.66956	21	.49351	49	.90146	53	.10931	64	.34634	35	.74276	19	58
3	.66978	22	.49303	49	.90199	53	.10867	64	.34669	35	.74256	20	57
4	.66999	21	.49255	49	.90251	52	.10802	64	.34704	35	.74237	19	56
5	0.67021	22	1.49207	49	0.90304	53	1.10737	64	1.34740	36	0.74217	20	55
6	.67043	21	.49159	49	.90357	53	.10672	64	.34775	35	.74198	19	54
7	.67064	21	.49111	48	.90410	53	.10607	64	.34811	36	.74178	20	53
8	.67086	22	.49063	48	.90463	53	.10543	64	.34846	35	.74159	19	52
9	.67107	21	.49015	48	.90516	52	.10478	64	.34882	36	.74139	20	51
10	0.67129	22	1.48967	48	0.90569	53	1.10414	64	1.34917	35	0.74120	19	50
11	.67151	21	.48919	48	.90621	53	.10349	64	.34953	36	.74100	20	49
12	.67172	21	.48871	48	.90674	53	.10285	64	.34988	35	.74080	20	48
13	.67194	22	.48824	48	.90727	53	.10220	64	.35024	36	.74061	19	47
14	.67215	21	.48776	48	.90781	54	.10156	64	.35060	36	.74041	20	46
15	0.67237	22	1.48728	48	0.90834	53	1.10091	64	1.35095	35	0.74022	19	45
16	.67258	21	.48681	48	.90887	53	.10027	64	.35131	36	.74002	20	44
17	.67280	22	.48633	48	.90940	53	.09963	64	.35167	36	.73983	19	43
18	.67301	21	.48586	48	.90993	53	.09899	64	.35203	36	.73963	20	42
19	.67323	22	.48538	48	.91046	53	.09834	64	.35238	35	.73944	19	41
20	0.67344	21	1.48491	48	0.91099	53	1.09770	64	1.35274	36	0.73924	20	40
21	.67366	22	.48443	48	.91153	54	.09706	64	.35310	36	.73904	20	39
22	.67387	21	.48396	48	.91206	53	.09642	64	.35346	36	.73885	19	38
23	.67409	22	.48349	48	.91259	53	.09578	64	.35382	36	.73865	20	37
24	.67430	21	.48301	48	.91313	54	.09514	63	.35418	36	.73846	19	36
25	0.67452	22	1.48254	48	0.91366	53	1.09450	63	1.35454	36	0.73826	20	35
26	.67473	21	.48207	48	.91419	53	.09386	63	.35490	36	.73806	20	34
27	.67495	22	.48160	48	.91473	54	.09322	63	.35526	36	.73787	19	33
28	.67516	21	.48113	48	.91526	53	.09258	63	.35562	36	.73767	20	32
29	.67538	22	.48066	48	.91580	54	.09195	63	.35598	36	.73747	20	31
30	0.67559	21	1.48019	48	0.91633	53	1.09131	63	1.35634	36	0.73728	19	30
31	.67580	21	.47972	47	.91687	54	.09067	63	.35670	36	.73708	20	29
32	.67602	22	.47925	47	.91740	53	.09003	63	.35707	37	.73688	20	28
33	.67623	21	.47878	47	.91794	54	.08940	63	.35743	36	.73669	19	27
34	.67645	22	.47831	47	.91847	53	.08876	63	.35779	36	.73649	20	26
35	0.67666	21	1.47784	47	0.91901	54	1.08813	63	1.35815	37	0.73629	20	25
36	.67688	22	.47738	47	.91955	54	.08749	63	.35852	37	.73610	19	24
37	.67709	21	.47691	47	.92008	53	.08686	63	.35888	36	.73590	20	23
38	.67730	21	.47644	47	.92062	54	.08622	63	.35924	36	.73570	20	22
39	.67752	22	.47598	47	.92116	54	.08559	63	.35961	37	.73551	19	21
40	0.67773	21	1.47551	47	0.92170	54	1.08496	63	1.35997	36	0.73531	20	20
41	.67795	22	.47504	47	.92224	54	.08432	63	.36034	37	.73511	20	19
42	.67816	21	.47458	47	.92277	53	.08369	63	.36070	36	.73491	19	18
43	.67837	21	.47411	47	.92331	54	.08306	63	.36107	37	.73472	19	17
44	.67859	22	.47365	47	.92385	54	.08243	63	.36143	36	.73452	20	16
45	0.67880	21	1.47319	47	0.92439	54	1.08179	63	1.36180	37	0.73432	20	15
46	.67901	21	.47272	47	.92493	54	.08116	63	.36217	37	.73413	19	14
47	.67923	22	.47226	47	.92547	54	.08053	63	.36253	37	.73393	20	13
48	.67944	21	.47180	47	.92601	54	.07990	63	.36290	37	.73373	20	12
49	.67965	21	.47134	47	.92655	54	.07927	62	.36327	37	.73353	20	11
50	0.67987	22	1.47087	47	0.92709	54	1.07864	62	1.36363	36	0.73333	20	10
51	.68008	21	.47041	47	.92763	54	.07801	62	.36400	37	.73314	19	9
52	.68029	21	.46995	47	.92817	54	.07738	62	.36437	37	.73294	20	8
53	.68051	22	.46949	47	.92872	55	.07676	62	.36474	37	.73274	20	7
54	.68072	21	.46903	47	.92926	54	.07613	62	.36511	37	.73254	20	6
55	0.68093	21	1.46857	46	0.92980	54	1.07550	62	1.36548	37	0.73234	20	5
56	.68115	22	.46811	46	.93034	54	.07487	62	.36585	37	.73215	19	4
57	.68136	21	.46765	46	.93088	54	.07425	62	.36622	37	.73195	20	3
58	.68157	22	.46719	46	.93143	55	.07362	62	.36659	37	.73175	20	2
59	.68179	21	.46674	46	.93197	54	.07299	62	.36696	37	.73155	20	1
60	0.68200	21	1.46628	46	0.93252	55	1.07237	62	1.36733	37	0.73135	20	0

TABLE 2  
Natural Trigonometric Functions

43° →		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	← 136°	
↓	sin											↑	↑
0	0.68200	21	1.46628	46	0.93252	54	1.07237	62	1.36733	37	0.73135	19	60
1	.68221	21	.46582	46	.93306	54	.07174	62	.36770	37	.73116	20	59
2	.68242	21	.46537	46	.93360	54	.07112	62	.36807	37	.73096	20	58
3	.68264	22	.46491	46	.93415	55	.07049	62	.36844	37	.73076	20	57
4	.68285	21	.46445	46	.93469	54	.06987	62	.36881	37	.73056	20	56
5	0.68306	21	1.46400	46	0.93524	55	1.06925	62	1.36919	38	0.73036	20	55
6	.68327	21	.46354	46	.93578	54	.06862	62	.36956	37	.73016	20	54
7	.68349	22	.46309	46	.93633	55	.06800	62	.36993	37	.72996	20	53
8	.68370	21	.46263	46	.93688	55	.06738	62	.37030	37	.72976	20	52
9	.68391	21	.46218	46	.93742	54	.06676	62	.37068	38	.72957	19	51
10	0.68412	22	1.46173	46	0.93797	55	1.06613	62	1.37105	37	0.72937	20	50
11	.68434	21	.46127	46	.93852	55	.06551	62	.37143	38	.72917	20	49
12	.68455	21	.46082	46	.93906	54	.06489	62	.37180	37	.72897	20	48
13	.68476	21	.46037	46	.93961	55	.06427	62	.37218	38	.72877	20	47
14	.68497	21	.45992	46	.94016	55	.06365	62	.37255	37	.72857	20	46
15	0.68518	21	1.45946	46	0.94071	55	1.06303	61	1.37293	38	0.72837	20	45
16	.68539	21	.45901	46	.94125	54	.06241	61	.37330	37	.72817	20	44
17	.68561	22	.45856	46	.94180	55	.06179	61	.37368	38	.72797	20	43
18	.68582	21	.45811	46	.94235	55	.06117	61	.37406	38	.72777	20	42
19	.68603	21	.45766	46	.94290	55	.06056	61	.37443	37	.72757	20	41
20	0.68624	21	1.45721	44	0.94345	55	1.05994	61	1.37481	38	0.72737	20	40
21	.68645	21	.45676	44	.94400	55	.05932	61	.37519	38	.72717	20	39
22	.68666	22	.45631	44	.94455	55	.05870	61	.37556	37	.72697	20	38
23	.68687	22	.45587	44	.94510	55	.05809	61	.37594	38	.72677	20	37
24	.68709	21	.45542	44	.94565	55	.05747	61	.37632	38	.72657	20	36
25	0.68730	21	1.45497	44	0.94620	55	1.05685	61	1.37670	38	0.72637	20	35
26	.68751	21	.45452	44	.94676	56	.05624	61	.37708	38	.72617	20	34
27	.68772	21	.45408	44	.94731	55	.05562	61	.37746	38	.72597	20	33
28	.68793	21	.45363	44	.94786	55	.05501	61	.37784	38	.72577	20	32
29	.68814	21	.45319	44	.94841	55	.05439	61	.37822	38	.72557	20	31
30	0.68835	21	1.45274	44	0.94896	55	1.05378	61	1.37860	38	0.72537	20	30
31	.68857	22	.45229	44	.94952	56	.05317	61	.37898	38	.72517	20	29
32	.68878	21	.45185	44	.95007	55	.05255	61	.37936	38	.72497	20	28
33	.68899	21	.45141	44	.95062	55	.05194	61	.37974	38	.72477	20	27
34	.68920	21	.45096	44	.95118	56	.05133	61					



**TABLE 2**  
Natural Trigonometric Functions

<b>44°</b> ↓		Diff. 1'	csc	Diff. 1'	tan	Diff. 1'	cot	Diff. 1'	sec	Diff. 1'	cos	Diff. 1'	<b>← 135°</b>	
sin	sin												cos	tan
0	0.69466	21	1.43956	43	0.96569	56	1.03553	60	1.39016	39	0.71934	20	60	
1	.69487	21	.43912	43	.96625	56	.03493	60	.39055	39	.71914	20	59	
2	.69508	21	.43869	43	.96681	56	.03433	60	.39095	40	.71894	20	58	
3	.69529	21	.43826	43	.96738	57	.03372	60	.39134	39	.71873	21	57	
4	.69549	20	.43783	43	.96794	56	.03312	60	.39173	39	.71853	20	56	
5	0.69570	21	1.43739	43	0.96850	56	1.03252	60	1.39212	39	0.71833	20	55	
6	.69591	21	.43696	43	.96907	57	.03192	60	.39251	39	.71813	20	54	
7	.69612	21	.43653	43	.96963	56	.03132	60	.39291	40	.71792	21	53	
8	.69633	21	.43610	43	.97020	57	.03072	60	.39330	39	.71772	20	52	
9	.69654	21	.43567	43	.97076	56	.03012	60	.39369	39	.71752	20	51	
10	0.69675	21	1.43524	43	0.97133	57	1.02952	60	1.39409	40	0.71732	20	50	
11	.69696	21	.43481	42	.97189	56	.02892	60	.39448	39	.71711	21	49	
12	.69717	21	.43438	42	.97246	57	.02832	60	.39487	39	.71691	20	48	
13	.69737	20	.43395	42	.97302	56	.02772	60	.39527	40	.71671	20	47	
14	.69758	21	.43352	42	.97359	57	.02713	60	.39566	39	.71650	21	46	
15	0.69779	21	1.43309	42	0.97416	57	1.02653	60	1.39606	40	0.71630	20	45	
16	.69800	21	.43267	42	.97472	56	.02593	60	.39646	40	.71610	20	44	
17	.69821	21	.43224	42	.97529	57	.02533	60	.39685	39	.71590	20	43	
18	.69842	21	.43181	42	.97586	57	.02474	60	.39725	40	.71569	21	42	
19	.69862	20	.43139	42	.97643	57	.02414	60	.39764	39	.71549	20	41	
20	0.69883	21	1.43096	42	0.97700	57	1.02355	60	1.39804	40	0.71529	20	40	
21	.69904	21	.43053	42	.97756	56	.02295	60	.39844	40	.71508	21	39	
22	.69925	21	.43011	42	.97813	57	.02236	60	.39884	40	.71488	20	38	
23	.69946	20	.42968	42	.97870	57	.02176	60	.39924	40	.71468	20	37	
24	.69966	21	.42926	42	.97927	57	.02117	60	.39963	39	.71447	21	36	
25	0.69987	21	1.42883	42	0.97984	57	1.02057	60	1.40003	40	0.71427	20	35	
26	.70008	21	.42841	42	.98041	57	.01998	60	.40043	40	.71407	20	34	
27	.70029	21	.42799	42	.98098	57	.01939	60	.40083	40	.71386	21	33	
28	.70049	20	.42756	42	.98155	57	.01879	60	.40123	40	.71366	20	32	
29	.70070	21	.42714	42	.98213	58	.01820	60	.40163	40	.71345	21	31	
30	0.70091	21	1.42672	42	0.98270	57	1.01761	60	1.40203	40	0.71325	20	30	
31	.70112	20	.42630	42	.98327	57	.01702	60	.40243	40	.71305	20	29	
32	.70132	21	.42587	42	.98384	57	.01642	60	.40283	40	.71284	21	28	
33	.70153	21	.42545	42	.98441	57	.01583	60	.40324	41	.71264	20	27	
34	.70174	21	.42503	42	.98499	58	.01524	60	.40364	40	.71243	21	26	
35	0.70195	21	1.42461	42	0.98556	57	1.01465	60	1.40404	40	0.71223	20	25	
36	.70215	20	.42419	42	.98613	57	.01406	60	.40444	40	.71203	20	24	
37	.70236	21	.42377	41	.98671	58	.01347	59	.40485	41	.71182	21	23	
38	.70257	21	.42335	41	.98728	57	.01288	59	.40525	40	.71162	20	22	
39	.70277	20	.42293	41	.98786	58	.01229	59	.40565	40	.71141	21	21	
40	0.70298	21	1.42251	41	0.98843	57	1.01170	59	1.40606	41	0.71121	20	20	
41	.70319	21	.42209	41	.98901	58	.01112	59	.40646	40	.71100	21	19	
42	.70339	20	.42168	41	.98958	57	.01053	59	.40687	41	.71080	20	18	
43	.70360	21	.42126	41	.99016	58	.00994	59	.40727	40	.71059	21	17	
44	.70381	21	.42084	41	.99073	57	.00935	59	.40768	41	.71039	20	16	
45	0.70401	20	1.42042	41	0.99131	58	1.00876	59	1.40808	40	0.71019	20	15	
46	.70422	21	.42001	41	.99189	58	.00818	59	.40849	41	.70998	21	14	
47	.70443	20	.41959	41	.99247	57	.00759	59	.40890	41	.70978	20	13	
48	.70463	20	.41918	41	.99304	57	.00701	59	.40930	40	.70957	21	12	
49	.70484	21	.41876	41	.99362	58	.00642	59	.40971	41	.70937	20	11	
50	0.70505	21	1.41835	41	0.99420	58	1.00583	59	1.41012	41	0.70916	21	10	
51	.70525	20	.41793	41	.99478	58	.00525	59	.41053	41	.70896	20	9	
52	.70546	21	.41752	41	.99536	58	.00467	59	.41093	40	.70875	21	8	
53	.70567	21	.41710	41	.99594	58	.00408	59	.41134	41	.70855	20	7	
54	.70587	20	.41669	41	.99652	58	.00350	59	.41175	41	.70834	21	6	
55	0.70608	21	1.41627	41	0.99710	58	1.00291	59	1.41216	41	0.70813	21	5	
56	.70628	20	.41586	41	.99768	58	.00233	59	.41257	41	.70793	20	4	
57	.70649	21	.41545	41	.99826	58	.00175	59	.41298	41	.70772	21	3	
58	.70670	21	.41504	41	.99884	58	.00116	59	.41339	41	.70752	20	2	
59	.70690	20	.41463	41	.99942	58	.00058	59	.41380	41	.70731	21	1	
60	0.70711	21	1.41421	41	1.00000	58	1.00000	59	1.41421	41	0.70711	20	0	
↑	<b>134°</b> →	Diff. 1'	sec	Diff. 1'	cot	Diff. 1'	tan	Diff. 1'	csc	Diff. 1'	sin	Diff. 1'	↑	<b>45°</b>

**TABLE 3**  
Common Logarithms of Trigonometric Functions (offset +10)

0° → ↓	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 179° ↓	
0	∞	—	∞	∞	—	∞	10.0000	0	10.0000	60
1	6.46373	—	13.53627	6.46373	—	13.53627	.00000	0	.00000	59
2	.76476	30103	.23524	.76476	30103	.23524	.00000	0	.00000	58
3	6.94085	17609	.05915	6.94085	17609	.05915	.00000	0	.00000	57
4	7.06579	12494	.93421	7.06579	12494	.93421	.00000	0	.00000	56
5	7.16270	9691	12.83730	7.16270	9691	12.83730	10.00000	0	10.00000	55
6	.24188	7918	.75812	.24188	7918	.75812	.00000	0	.00000	54
7	.30882	6694	.69118	.30882	6694	.69118	.00000	0	.00000	53
8	.36682	5800	.63318	.36682	5800	.63318	.00000	0	.00000	52
9	.41797	5115	.58203	.41797	5115	.58203	.00000	0	.00000	51
10	7.46373	4576	12.53627	7.46373	4576	12.53627	10.00000	0	10.00000	50
11	.50512	4139	.49488	.50512	4139	.49488	.00000	0	.00000	49
12	.54291	3779	.45709	.54291	3779	.45709	.00000	0	.00000	48
13	.57767	3218	.42233	.57767	3219	.42233	.00000	0	.00000	47
14	.60985	2997	.39015	.60986	2996	.39014	.00000	0	.00000	46
15	7.63982	2802	12.36018	7.63982	2803	12.36018	10.00000	0	10.00000	45
16	.66784	2633	.33216	.66785	2633	.33215	.00000	1	.00000	44
17	.69417	2483	.30583	.69418	2482	.30582	.00001	0	.99999	43
18	.71900	2348	.28100	.71900	2348	.28100	.00001	0	.99999	42
19	.74248	2227	.25752	.74248	2228	.25752	.00001	0	.99999	41
20	7.76475	2119	12.23525	7.76476	2119	12.23524	10.00001	0	9.99999	40
21	.78594	2021	.21406	.78595	2020	.21405	.00001	0	.99999	39
22	.80615	1930	.19385	.80615	1931	.19385	.00001	0	.99998	38
23	.82545	1848	.17455	.82546	1848	.17454	.00001	0	.99999	37
24	.84393	1773	.15607	.84394	1773	.15606	.00001	0	.99999	36
25	7.86166	1704	12.13834	7.86167	1704	12.13833	10.00001	0	9.99999	35
26	.87870	1639	.12130	.87871	1639	.12129	.00001	0	.99999	34
27	.89509	1579	.10491	.89510	1579	.10490	.00001	0	.99999	33
28	.91088	1524	.08912	.91089	1524	.08911	.00001	0	.99999	32
29	.92612	1472	.07388	.92613	1473	.07387	.00002	1	.99998	31
30	7.94084	1424	12.05916	7.94086	1424	12.05914	10.00002	0	9.99998	30
31	.95508	1379	.04492	.95510	1379	.04490	.00002	0	.99998	29
32	.96887	1336	.03113	.96889	1336	.03111	.00002	0	.99998	28
33	.98223	1297	.01777	.98225	1297	.01775	.00002	0	.99998	27
34	7.99520	1259	11.99522	7.99522	1259	11.99522	10.00002	0	9.99998	26
35	8.00779	1223	11.99221	8.00781	1223	11.99219	10.00002	0	9.99998	25
36	.02002	1190	.97998	.02004	1190	.97996	.00002	1	.99998	24
37	.03192	1158	.96808	.03194	1159	.96806	.00003	0	.99997	23
38	.04350	1128	.95650	.04353	1128	.95647	.00003	0	.99997	22
39	.05478	1100	.94522	.05481	1100	.94519	.00003	0	.99997	21
40	8.06578	1072	11.93422	8.06581	1072	11.93419	10.00003	0	9.99997	20
41	.07650	1046	.92350	.07653	1047	.92347	.00003	0	.99997	19
42	.08696	1022	.91304	.08700	1022	.91300	.00003	0	.99997	18
43	.09718	999	.90282	.09722	998	.90278	.00003	0	.99997	17
44	.10717	976	.89283	.10720	976	.89280	.00004	1	.99996	16
45	8.11693	954	11.88307	8.11696	955	11.88304	10.00004	0	9.99996	15
46	.12647	934	.87353	.12651	934	.87349	.00004	0	.99996	14
47	.13581	914	.86419	.13585	915	.86415	.00004	0	.99996	13
48	.14495	896	.85505	.14500	895	.85500	.00004	0	.99996	12
49	.15391	877	.84609	.15395	878	.84605	.00004	1	.99996	11
50	8.16268	860	11.83732	8.16273	860	11.83727	10.00005	0	9.99995	10
51	.17128	843	.82872	.17133	843	.82867	.00005	0	.99995	9
52	.17971	827	.82029	.17976	828	.82024	.00005	0	.99995	8
53	.18798	812	.81202	.18804	812	.81196	.00005	0	.99995	7
54	.19610	797	.80390	.19616	797	.80384	.00005	1	.99995	6
55	8.20407	782	11.79593	8.20413	782	11.79587	10.00006	0	9.99994	5
56	.21189	769	.78811	.21195	769	.78805	.00006	0	.99994	4
57	.21958	755	.78042	.21964	756	.78036	.00006	0	.99994	3
58	.22713	743	.77287	.22720	742	.77280	.00006	0	.99994	2
59	.23456	730	.76544	.23462	730	.76538	.00006	0	.99994	1
60	8.24186	730	11.75814	8.24192	730	11.75808	10.00007	1	9.99993	0
↑	90° → cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 89°	↑

**TABLE 3**  
Common Logarithms of Trigonometric Functions (offset +10)

1° → ↓	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 178° ↓	
0	8.24186	717	11.75814	8.24192	718	11.75808	10.00007	0	9.99993	60
1	.24903	706	.75097	.24910	706	.75090	.00007	0	.99993	59
2	.25609	695	.74391	.25616	696	.74384	.00007	0	.99993	58
3	.26304	684	.73696	.26312	696	.73688	.00007	0	.99993	57
4	.26988	673	.73012	.26996	684	.73004	.00008	1	.99992	56
5	8.27661	663	11.72339	8.27669	673	11.72331	10.00008	0	9.99992	55
6	.28324	653	.71676	.28332	663	.71668	.00008	0	.99992	54
7	.28977	644	.71023	.28986	654	.71014	.00008	0	.99992	53
8	.29621	634	.70379	.29629	643	.70371	.00008	0	.99992	52
9	.30255	624	.69745	.30263	634	.69737	.00009	1	.99991	51
10	8.30879	616	11.69121	8.30888	625	11.69112	10.00009	0	9.99991	50
11	.31495	608	.68505	.31505	617	.68495	.00009	0	.99991	49
12	.32103	599	.67897	.32112	607	.67888	.00010	1	.99990	48
13	.32702	590	.67298	.32711	599	.67289	.00010	0	.99990	47
14	.33292	583	.66708	.33302	591	.66698	.00010	0	.99990	46
15	8.33875	575	11.66125	8.33886	584	11.66114	10.00010	0	9.99990	45
16	.34450	568	.65550	.34461	575	.65539	.00011	1	.99989	44
17	.35018	560	.64982	.35029	568	.64971	.00011	0	.99989	43
18	.35578	553	.64422	.35590	561	.64410	.00011	0	.99989	42
19	.36131	547	.63869	.36143	553	.63857	.00011	0	.99989	41
20	8.36678	539	11.63322	8.36689	546	11.63311	10.00012	1	9.99988	40
21	.37217	533	.62783	.37229	540	.62771	.00012	0	.99988	39
22	.37750	526	.62250	.37762	533	.62238	.00012	1	.99988	38
23	.38276	520	.61724	.38289	527	.61711	.00013	0	.99987	37
24	.38796	514	.61204	.38809	520	.61191	.00013	0	.99987	36
25	8.39310	508	11.60690	8.39323	514	11.60677	10.00013	0	9.99987	35
26	.39818	502	.60182	.39832	509	.60168	.00014	1	.99986	34
27	.40320	496	.59680	.40334	502	.59666	.00014	0	.99986	33
28	.40816	491	.59184	.40830	496	.59170	.00014	0	.99986	32
29	.41307	485	.58693	.41321	491	.58679	.00015	1	.99985	31
30	8.41792	480	11.58208	8.41807	486	11.58193	10.00015	0	9.99985	30
31	.42272	474	.57728	.42287	480	.57713	.00015	1	.99985	29
32	.42746	470	.57254	.42762	475	.57238	.00016	0	.99984	28
33	.43216	464	.56784	.43232	470	.56768	.00016	0	.99984	27
34	.43680	459	.56320	.43696	464	.56304	.00016	0	.99984	26
35	8.44139	455	11.55861	8.44156	460	11.55844	10.00017	1	9.99983	25
36	.44594	450	.55406	.44611	455	.55389	.00017	0	.99983	24
37	.45044	445	.54956	.45061	450	.54939	.00017	1	.99983	23
38	.45489	441	.54511	.45507	446	.54493	.00018	0	.99982	22
39	.45930	436	.54070	.45948	441	.54052	.00018	0	.99982	21
40	8.46366	433	11.53634	8.46385	437	11.53615	10.00018	1	9.99982	20
41	.46799	427	.53201	.46817	432	.53183	.00019	1	.99981	19
42	.47226	424	.52774	.47245	428	.52755	.00019	0	.99981	18
43	.47650	419	.52350	.47669	424	.52331	.00019	0	.99981	17
44	.48069	416	.51931	.48089	420	.51911	.00020	1	.99980	16
45	8.48485	411	11.51515	8.48505	416	11.51495	10.00020	1	9.99980	15
46	.48896	408	.51104	.48917	412	.51083	.00021	0	.99979	14
47	.49304	404	.50696	.49325	408	.50675	.00021	0	.99979	13
48	.49708	400	.50292	.49729	404	.50271	.00021	0	.99979	12
49	.50108	396	.49892	.50130	397	.49870	.00022	1	.99978	11
50	8.50504	393	11.49496	8.50527	393	11.49473	10.00022	1	9.99978	10
51	.50897	390	.49103	.50920	393	.49080	.00023			

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
2° → ↓	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 177° ↓	
0	8.54282	360	11.45718	8.54308	361	11.45692	10.00026	1	9.99974	60
1	.54642	357	.45358	.54669	358	.45331	.00027	0	.99973	59
2	.54999	355	.45001	.55027	355	.44973	.00027	0	.99973	58
3	.55354	351	.44646	.55382	352	.44618	.00028	0	.99972	57
4	.55705	349	.44295	.55734	349	.44266	.00028	1	.99972	56
5	8.56054	346	11.43946	8.56083	346	11.43917	10.00029	0	9.99971	55
6	.56400	343	.43600	.56429	344	.43571	.00029	0	.99971	54
7	.56743	341	.43257	.56773	341	.43227	.00030	0	.99970	53
8	.57084	337	.42916	.57114	338	.42886	.00030	0	.99970	52
9	.57421	336	.42579	.57452	336	.42548	.00031	0	.99969	51
10	8.57757	332	11.42243	8.57788	333	11.42212	10.00031	1	9.99969	50
11	.58089	330	.41911	.58121	330	.41879	.00032	0	.99968	49
12	.58419	328	.41581	.58451	328	.41549	.00032	0	.99968	48
13	.58747	325	.41253	.58779	326	.41221	.00033	0	.99967	47
14	.59072	323	.40928	.59105	323	.40895	.00033	0	.99967	46
15	8.59395	320	11.40605	8.59428	321	11.40572	10.00033	1	9.99967	45
16	.59715	318	.40285	.59749	319	.40251	.00034	0	.99966	44
17	.60033	316	.39967	.60068	316	.39932	.00034	0	.99966	43
18	.60349	313	.39651	.60384	314	.39616	.00035	1	.99965	42
19	.60662	311	.39338	.60698	311	.39302	.00036	0	.99964	41
20	8.60973	309	11.39027	8.61009	310	11.38991	10.00036	1	9.99964	40
21	.61282	307	.38718	.61319	307	.38681	.00037	0	.99963	39
22	.61589	305	.38411	.61626	305	.38374	.00037	0	.99963	38
23	.61894	302	.38106	.61931	303	.38069	.00038	0	.99962	37
24	.62196	301	.37804	.62234	301	.37766	.00038	0	.99962	36
25	8.62497	298	11.37503	8.62535	299	11.37465	10.00039	0	9.99961	35
26	.62795	296	.37205	.62834	297	.37166	.00039	0	.99961	34
27	.63091	294	.36909	.63131	295	.36869	.00040	0	.99960	33
28	.63385	293	.36615	.63426	292	.36574	.00040	0	.99960	32
29	.63678	290	.36322	.63718	291	.36282	.00041	0	.99959	31
30	8.63968	288	11.36032	8.64009	289	11.35991	10.00041	1	9.99959	30
31	.64256	287	.35744	.64298	287	.35702	.00042	0	.99958	29
32	.64543	284	.35457	.64585	285	.35415	.00042	0	.99958	28
33	.64827	283	.35173	.64870	284	.35130	.00043	0	.99957	27
34	.65110	281	.34890	.65154	281	.34846	.00044	0	.99956	26
35	8.65391	279	11.34609	8.65435	280	11.34565	10.00044	1	9.99956	25
36	.65670	277	.34330	.65715	278	.34285	.00045	0	.99955	24
37	.65947	276	.34053	.65993	276	.34007	.00045	0	.99955	23
38	.66223	274	.33777	.66269	274	.33731	.00046	0	.99954	22
39	.66497	272	.33503	.66543	273	.33457	.00046	0	.99954	21
40	8.66769	270	11.33231	8.66816	271	11.33184	10.00047	1	9.99953	20
41	.67039	269	.32961	.67087	269	.32913	.00048	0	.99952	19
42	.67308	267	.32692	.67356	268	.32644	.00048	0	.99952	18
43	.67575	266	.32425	.67624	266	.32376	.00049	0	.99951	17
44	.67841	263	.32159	.67890	264	.32110	.00049	0	.99951	16
45	8.68104	263	11.31896	8.68154	263	11.31846	10.00050	1	9.99950	15
46	.68367	260	.31633	.68417	261	.31583	.00051	0	.99949	14
47	.68627	259	.31373	.68678	260	.31322	.00051	0	.99949	13
48	.68886	258	.31114	.68938	258	.31062	.00052	0	.99948	12
49	.69144	256	.30856	.69196	257	.30804	.00052	0	.99948	11
50	8.69400	254	11.30600	8.69453	255	11.30547	10.00053	1	9.99947	10
51	.69654	253	.30346	.69708	254	.30292	.00054	0	.99946	9
52	.69907	252	.30093	.69962	252	.30038	.00054	0	.99946	8
53	.70159	250	.29841	.70214	251	.29786	.00055	0	.99945	7
54	.70409	249	.29591	.70465	249	.29535	.00056	0	.99944	6
55	8.70658	247	11.29342	8.70714	248	11.29286	10.00056	1	9.99944	5
56	.70905	246	.29095	.70962	246	.29038	.00057	1	.99943	4
57	.71151	244	.28849	.71208	245	.28792	.00058	0	.99942	3
58	.71395	243	.28605	.71453	244	.28547	.00058	0	.99942	2
59	.71638	242	.28362	.71697	243	.28303	.00059	1	.99941	1
60	8.71880	242	11.28120	8.71940	243	11.28060	10.00060	1	9.99940	0
↑	92° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 87°

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
3° → ↓	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 176° ↓	
0	8.71880	240	11.28120	8.71940	241	11.28060	10.00060	0	9.99940	60
1	.72120	239	.27880	.72181	239	.27850	.00060	1	.99940	59
2	.72359	238	.27641	.72420	239	.27610	.00061	1	.99939	58
3	.72597	237	.27403	.72659	239	.27371	.00062	1	.99938	57
4	.72834	235	.27166	.72896	237	.27104	.00062	0	.99938	56
5	8.73069	234	11.26931	8.73132	234	11.26868	10.00063	1	9.99937	55
6	.73303	232	.26697	.73366	234	.26634	.00064	1	.99936	54
7	.73535	232	.26465	.73600	234	.26400	.00064	0	.99936	53
8	.73767	232	.26233	.73832	232	.26168	.00065	1	.99935	52
9	.73997	230	.26003	.74063	231	.25937	.00066	1	.99934	51
10	8.74226	228	11.25774	8.74292	229	11.25708	10.00066	1	9.99934	50
11	.74454	228	.25546	.74521	229	.25479	.00067	1	.99933	49
12	.74680	226	.25320	.74748	227	.25252	.00068	0	.99932	48
13	.74906	226	.25094	.74974	226	.25026	.00068	0	.99932	47
14	.75130	224	.24870	.75199	225	.24801	.00069	1	.99931	46
15	8.75353	222	11.24647	8.75423	222	11.24577	10.00070	1	9.99930	45
16	.75575	222	.24425	.75645	222	.24355	.00071	1	.99929	44
17	.75795	220	.24205	.75867	222	.24133	.00071	0	.99929	43
18	.76015	220	.23985	.76087	220	.23913	.00072	1	.99928	42
19	.76234	219	.23766	.76306	219	.23694	.00073	1	.99927	41
20	8.76451	216	11.23549	8.76525	217	11.23475	10.00074	0	9.99926	40
21	.76667	216	.23533	.76742	216	.23458	.00074	1	.99926	39
22	.76883	214	.23317	.76958	216	.23242	.00075	1	.99925	38
23	.77097	213	.23103	.77173	215	.23027	.00076	1	.99924	37
24	.77310	212	.22890	.77387	214	.22813	.00077	1	.99923	36
25	8.77522	211	11.22478	8.77600	211	11.22400	10.00077	1	9.99923	35
26	.77733	211	.22267	.77811	211	.22189	.00078	1	.99922	34
27	.77943	210	.22057	.78022	211	.21978	.00079	1	.99921	33
28	.78152	209	.21848	.78232	210	.21768	.00080	1	.99920	32
29	.78360	208	.21640	.78441	209	.21559	.00080	0	.99920	31
30	8.78568	206	11.21432	8.78649	206	11.21351	10.00081	1	9.99919	30
31	.78774	206	.21226	.78855	206	.21145	.00082	1	.99918	29
32	.78979	205	.21021	.79061	206	.20939	.00083	0	.99917	28
33	.79183	204	.20817	.79266	205	.20734	.00083	0	.99917	27
34	.79386	203	.20614	.79470	204	.20530	.00084	1	.99916	26
35	8.79588	201	11.20412	8.79673	202	11.20327	10.00085	1	9.99915	25
36	.79789	201	.20211	.79875	202	.20125	.00086	1	.99914	24
37	.79990	201	.20010	.80076	201	.19924	.00087	0	.99913	23
38	.80189	199	.19811	.80277	201	.19723	.00087	0	.99913	22
39	.80388	199	.19612	.80476	199	.19524	.00088	1	.99912	21
40	8.80585	197	11.19415	8.80674	198	11.19326	10.00089	1	9.99911	20
41	.80782	196	.19218	.80872	196	.19128	.00090	1	.99910	19
42	.80978	195	.19022	.81068	196	.18932	.00091	0	.99909	18
43	.81173	194	.18827	.81264	196	.18736	.00091	0	.99909	17
44	.81367	193	.18633	.81459	195	.18541	.00092	1	.99908	16
45	8.81560	192	11.18440	8.81653	193	11.18347	10.00093	1	9.99907	15
46	.81752	192	.18248	.81846	192	.18154	.00094	1	.99906	14
47	.81944	190	.18056	.82038	192	.17962	.00095	1	.99905	13
48	.82134	190	.17866	.82230	192	.17770	.00096	0	.99904	12
49	.82324	189	.17676	.82420	190	.17580	.00096	0	.99904	11
50	8.82513	188	11.17487	8.82610	189	11.17390	10.00097	1	9.99903	10
51	.82701	187	.17299	.82799	188	.17201	.00098	1	.99902	9
52	.82888	187	.17112	.82897	188	.17013	.00099	1	.99901	8
53	.83075	186	.16925	.83175	188	.				

TABLE 3  
Common Logarithms of Trigonometric Functions (offset +10)

4° → ↓	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 175° ↓	
0	8.84358		11.15642	8.84464	182	11.15536	10.00106	1	9.99894	60
1	.84539	181	.15461	.84646	180	.15354	.00107	1	.99893	59
2	.84718	179	.15282	.84826	180	.15174	.00108	1	.99892	58
3	.84897	179	.15103	.85006	180	.14994	.00109	1	.99891	57
4	.85075	178	.14925	.85185	179	.14815	.00109	0	.99891	56
5	8.85252	177	11.14748	8.85363	178	11.14637	10.00110	1	9.99890	55
6	.85429	177	.14571	.85540	177	.14460	.00111	1	.99889	54
7	.85605	176	.14395	.85717	177	.14283	.00112	1	.99888	53
8	.85780	175	.14220	.85893	176	.14107	.00113	1	.99887	52
9	.85955	175	.14045	.86069	176	.13931	.00114	1	.99886	51
10	8.86128	173	11.13872	8.86243	174	11.13757	10.00115	1	9.99885	50
11	.86301	173	.13699	.86417	174	.13583	.00116	1	.99884	49
12	.86474	171	.13526	.86591	174	.13409	.00117	1	.99883	48
13	.86645	171	.13355	.86763	172	.13237	.00118	1	.99882	47
14	.86816	171	.13184	.86935	172	.13065	.00119	1	.99881	46
15	8.86987	169	11.13013	8.87106	171	11.12894	10.00120	1	9.99880	45
16	.87156	169	.12844	.87277	170	.12723	.00121	0	.99879	44
17	.87325	169	.12675	.87447	170	.12553	.00121	1	.99879	43
18	.87494	167	.12506	.87616	169	.12384	.00122	1	.99878	42
19	.87661	168	.12339	.87785	169	.12215	.00123	1	.99877	41
20	8.87829	166	11.12171	8.87953	167	11.12047	10.00124	1	9.99876	40
21	.87995	166	.12005	.88120	167	.11880	.00125	1	.99875	39
22	.88161	165	.11839	.88287	167	.11713	.00126	1	.99874	38
23	.88326	164	.11674	.88453	166	.11547	.00127	1	.99873	37
24	.88490	164	.11510	.88618	165	.11382	.00128	1	.99872	36
25	8.88654	163	11.11346	8.88783	165	11.11217	10.00129	1	9.99871	35
26	.88817	163	.11183	.88948	163	.11052	.00130	1	.99870	34
27	.88980	162	.11020	.89111	163	.10889	.00131	1	.99869	33
28	.89142	162	.10858	.89274	163	.10726	.00132	1	.99868	32
29	.89304	160	.10696	.89437	163	.10563	.00133	1	.99867	31
30	8.89464	161	11.10536	8.89598	162	11.10402	10.00134	1	9.99866	30
31	.89625	159	.10375	.89760	160	.10240	.00135	1	.99865	29
32	.89784	159	.10216	.89920	160	.10080	.00136	1	.99864	28
33	.89943	159	.10057	.90080	160	.99920	.00137	1	.99863	27
34	.90102	158	.99898	.90240	160	.99760	.00138	1	.99862	26
35	8.90260	157	11.09740	8.90399	159	11.09601	10.00139	1	9.99861	25
36	.90417	157	.99583	.90557	158	.99443	.00140	1	.99860	24
37	.90574	156	.99426	.90715	158	.99285	.00141	1	.99859	23
38	.90730	156	.99270	.90872	157	.99128	.00142	1	.99858	22
39	.90885	155	.99115	.91029	157	.98971	.00143	1	.99857	21
40	8.91040	155	11.08960	8.91185	155	11.08815	10.00144	1	9.99856	20
41	.91195	154	.98805	.91340	155	.98660	.00145	1	.99855	19
42	.91349	153	.98651	.91495	155	.98505	.00146	1	.99854	18
43	.91502	153	.98498	.91650	155	.98350	.00147	1	.99853	17
44	.91655	152	.98345	.91803	153	.98197	.00148	1	.99852	16
45	8.91807	152	11.08193	8.91957	153	11.08043	10.00149	1	9.99851	15
46	.91959	151	.98041	.92110	152	.97890	.00150	2	.99850	14
47	.92110	151	.97890	.92262	152	.97738	.00152	1	.99848	13
48	.92261	150	.97739	.92414	151	.97586	.00153	1	.99847	12
49	.92411	150	.97589	.92565	151	.97435	.00154	1	.99846	11
50	8.92561	149	11.07439	8.92716	150	11.07284	10.00155	1	9.99845	10
51	.92710	149	.97290	.92866	150	.97134	.00156	1	.99844	9
52	.92859	148	.97141	.93016	149	.96984	.00157	1	.99843	8
53	.93007	147	.96993	.93165	148	.96835	.00158	1	.99842	7
54	.93154	147	.96846	.93313	149	.96687	.00159	1	.99841	6
55	8.93301	147	11.06699	8.93462	147	11.06538	10.00160	1	9.99840	5
56	.93448	146	.96552	.93609	147	.96391	.00161	1	.99839	4
57	.93594	146	.96406	.93756	147	.96244	.00162	1	.99838	3
58	.93740	145	.96260	.93903	146	.96097	.00163	1	.99837	2
59	.93885	145	.96115	.94049	146	.95951	.00164	1	.99836	1
60	8.94030	145	11.05970	8.94195	146	11.05805	10.00166	2	9.99834	0
↑ 94° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 85° ↑	

TABLE 3  
Common Logarithms of Trigonometric Functions (offset +10)

5° → ↓	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 174° ↓	
0	8.94030		11.05970	8.94195	145	11.05805	10.00166	1	9.99834	60
1	.94174	144	.05826	.94340	145	.05660	.00167	1	.99833	59
2	.94317	143	.05683	.94485	145	.05515	.00168	1	.99832	58
3	.94461	144	.05539	.94630	145	.05370	.00169	1	.99831	57
4	.94603	142	.05397	.94773	143	.05227	.00170	1	.99830	56
5	8.94746	143	11.05254	8.94917	144	11.05083	10.00171	1	9.99829	55
6	.94887	141	.05113	.95060	143	.04940	.00172	1	.99828	54
7	.95029	142	.04971	.95202	142	.04798	.00173	1	.99827	53
8	.95170	141	.04830	.95344	142	.04656	.00175	2	.99825	52
9	.95310	140	.04690	.95486	142	.04514	.00176	1	.99824	51
10	8.95450	140	11.04550	8.95627	141	11.04373	10.00177	1	9.99823	50
11	.95589	139	.04411	.95767	140	.04233	.00178	1	.99822	49
12	.95728	139	.04272	.95908	141	.04092	.00179	1	.99821	48
13	.95867	139	.04133	.96047	139	.03953	.00180	1	.99820	47
14	.96005	138	.03995	.96187	140	.03813	.00181	1	.99819	46
15	8.96143	138	11.03857	8.96325	138	11.03675	10.00183	2	9.99817	45
16	.96280	137	.03720	.96464	139	.03536	.00184	1	.99816	44
17	.96417	137	.03583	.96602	138	.03398	.00185	1	.99815	43
18	.96553	136	.03447	.96739	137	.03261	.00186	1	.99814	42
19	.96689	136	.03311	.96877	138	.03123	.00187	1	.99813	41
20	8.96825	136	11.03175	8.97013	137	11.02987	10.00188	2	9.99812	40
21	.96960	135	.03040	.97150	137	.02850	.00190	1	.99810	39
22	.97095	135	.02905	.97285	135	.02715	.00191	1	.99809	38
23	.97229	134	.02771	.97421	136	.02579	.00192	1	.99808	37
24	.97363	134	.02637	.97556	135	.02444	.00193	1	.99807	36
25	8.97496	133	11.02504	8.97691	135	11.02309	10.00194	2	9.99806	35
26	.97629	133	.02371	.97825	134	.02175	.00196	1	.99804	34
27	.97762	133	.02238	.97959	134	.02041	.00197	1	.99803	33
28	.97894	132	.02106	.98092	133	.01908	.00198	1	.99802	32
29	.98026	132	.01974	.98225	133	.01775	.00199	1	.99801	31
30	8.98157	131	11.01843	8.98358	133	11.01642	10.00200	2	9.99800	30
31	.98288	131	.01712	.98490	132	.01510	.00202	1	.99798	29
32	.98419	131	.01581	.98622	132	.01378	.00203	1	.99797	28
33	.98549	130	.01451	.98753	131	.01247	.00204	1	.99796	27
34	.98679	130	.01321	.98884	131	.01116	.00205	1	.99795	26
35	8.98808	129	11.01192	8.99015	131	11.00985	10.00207	2	9.99793	25
36	.98937	129	.01063	.99145	130	.00855	.00208	1	.99792	24
37	.99066	128	.00934	.99275	130	.00725	.00209	1	.99791	23
38	.99194	128	.00806	.99405	129	.00595	.00210	2	.99790	22
39	.99322	128	.00678	.99534	128	.00466	.00212	1	.99788	21
40	8.99450	127	11.00550	8.99662	129	11.00338	10.00213	1	9.99787	20
41	.99577	127	.00423	.99791	128	.00209	.00214	1	.99786	19
42	.99704	126	.00296	.99919	128	.00081	.00215	2	.99785	18
43	.99830	126	.00170	.99946	127	.99954	.00217	1	.99783	17
44	8.99956	126	.00044	.99974	128	.99826	.00218	1	.99782	16
45	9.00082	125	10.99918	9.00301	127	10.99699	10.00219	1	9.99781	15
46	.00207	125	.99793	.00427	126	.99573	.00220	2	.99780	14
47	.00332	124	.99668	.00553	126	.99447	.00222	1	.99778	13
48	.00456	124	.99544	.00679	126	.99321	.00223	1	.99777	12
49	.00581	123	.99419	.00805	126	.99195	.00224	1	.99776	11
50	9.00704	123	10.99296	9.00930	125	10.99070	10.00225	2	9.99775	10
51	.00828	123	.99172	.01055	124	.98945	.00227	1	.99773	9
52	.00951	123	.99049	.01179	124	.98821	.00228	1	.	

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
6° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 173°	
0	9.01923	120	10.98077	9.02162	121	10.97838	10.00239	1	9.99761	60
1	.02043	120	.97957	.02283	121	.97717	.00240	1	.99760	59
2	.02163	120	.97837	.02404	121	.97596	.00241	2	.99759	58
3	.02283	119	.97717	.02525	120	.97475	.00242	1	.99757	57
4	.02402	118	.97598	.02645	121	.97355	.00244	1	.99756	56
5	9.02520	119	10.97480	9.02766	119	10.97234	10.00245	2	9.99755	55
6	.02639	118	.97361	.02885	120	.97115	.00247	1	.99753	54
7	.02757	117	.97243	.03005	119	.96995	.00248	1	.99752	53
8	.02874	118	.97126	.03124	118	.96876	.00249	1	.99751	52
9	.02992	117	.97008	.03242	119	.96758	.00251	2	.99749	51
10	9.03109	117	10.96891	9.03361	118	10.96639	10.00252	1	9.99748	50
11	.03226	116	.96774	.03479	118	.96521	.00253	2	.99747	49
12	.03342	116	.96658	.03597	117	.96403	.00255	1	.99745	48
13	.03458	116	.96542	.03714	118	.96286	.00256	2	.99744	47
14	.03574	116	.96426	.03832	116	.96168	.00258	2	.99742	46
15	9.03690	115	10.96310	9.03948	117	10.96052	10.00259	1	9.99741	45
16	.03805	115	.96195	.04065	116	.95935	.00260	1	.99739	44
17	.03920	114	.96080	.04181	116	.95819	.00262	2	.99738	43
18	.04034	115	.95966	.04297	116	.95703	.00263	1	.99737	42
19	.04149	113	.95851	.04413	115	.95587	.00264	2	.99736	41
20	9.04262	114	10.95738	9.04528	115	10.95472	10.00266	1	9.99734	40
21	.04376	114	.95624	.04643	115	.95357	.00267	2	.99733	39
22	.04490	113	.95510	.04758	115	.95242	.00269	1	.99731	38
23	.04603	112	.95397	.04873	114	.95127	.00270	2	.99730	37
24	.04715	113	.95285	.04987	114	.95013	.00272	2	.99728	36
25	9.04828	112	10.95172	9.05101	113	10.94899	10.00273	1	9.99727	35
26	.04940	112	.95060	.05214	114	.94786	.00274	2	.99726	34
27	.05052	112	.94948	.05328	113	.94672	.00276	1	.99724	33
28	.05164	111	.94836	.05441	112	.94559	.00277	2	.99723	32
29	.05275	111	.94725	.05553	113	.94447	.00279	2	.99721	31
30	9.05386	111	10.94614	9.05666	112	10.94334	10.00280	2	9.99720	30
31	.05497	110	.94503	.05778	112	.94222	.00282	2	.99718	29
32	.05607	110	.94393	.05890	112	.94110	.00283	1	.99717	28
33	.05717	110	.94283	.06002	112	.93998	.00284	1	.99716	27
34	.05827	110	.94173	.06113	111	.93887	.00286	2	.99714	26
35	9.05937	109	10.94063	9.06224	111	10.93776	10.00287	2	9.99713	25
36	.06046	109	.93954	.06335	110	.93665	.00289	1	.99711	24
37	.06155	109	.93845	.06445	111	.93555	.00290	1	.99710	23
38	.06264	108	.93736	.06556	110	.93444	.00292	2	.99708	22
39	.06372	109	.93628	.06666	109	.93334	.00293	1	.99707	21
40	9.06481	108	10.93519	9.06775	110	10.93225	10.00295	1	9.99705	20
41	.06589	107	.93411	.06885	109	.93115	.00296	2	.99704	19
42	.06696	108	.93304	.06994	109	.93006	.00298	1	.99702	18
43	.06804	107	.93196	.07103	108	.92897	.00299	1	.99701	17
44	.06911	107	.93089	.07211	109	.92789	.00301	2	.99699	16
45	9.07018	106	10.92982	9.07320	108	10.92680	10.00302	2	9.99698	15
46	.07124	107	.92876	.07428	108	.92572	.00304	1	.99696	14
47	.07231	106	.92769	.07536	107	.92464	.00305	2	.99695	13
48	.07337	105	.92663	.07643	107	.92357	.00307	1	.99693	12
49	.07442	106	.92558	.07751	108	.92249	.00308	2	.99692	11
50	9.07548	105	10.92452	9.07858	106	10.92142	10.00310	1	9.99690	10
51	.07653	105	.92347	.07964	107	.92036	.00311	2	.99689	9
52	.07758	105	.92242	.08071	106	.91929	.00313	1	.99687	8
53	.07863	105	.92137	.08177	106	.91823	.00314	2	.99686	7
54	.07968	104	.92032	.08283	106	.91717	.00316	1	.99684	6
55	9.08072	104	10.91928	9.08389	106	10.91611	10.00317	2	9.99683	5
56	.08176	104	.91824	.08495	105	.91505	.00319	1	.99681	4
57	.08280	103	.91720	.08600	105	.91400	.00320	2	.99680	3
58	.08383	103	.91617	.08705	105	.91295	.00322	1	.99678	2
59	.08486	103	.91514	.08810	104	.91190	.00323	2	.99677	1
60	9.08589	103	10.91411	9.08914	104	10.91086	10.00325	1	9.99675	0
↑	96° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 83°

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
7° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 172°	
0	9.08589	103	10.91411	9.08914	105	10.91086	10.00325	1	9.99675	60
1	.08692	103	.91308	.09019	104	.90981	.00326	2	.99674	59
2	.08795	102	.91205	.09123	104	.90877	.00328	2	.99672	58
3	.08897	102	.91103	.09227	103	.90773	.00330	1	.99670	57
4	.08999	102	.91001	.09330	103	.90670	.00331	2	.99669	56
5	9.09101	101	10.90899	9.09434	103	10.90566	10.00333	1	9.99667	55
6	.09202	102	.90798	.09537	103	.90463	.00334	1	.99666	54
7	.09304	101	.90696	.09640	103	.90360	.00336	2	.99664	53
8	.09405	101	.90595	.09742	102	.90258	.00337	1	.99663	52
9	.09506	100	.90494	.09845	103	.90155	.00339	2	.99661	51
10	9.09606	101	10.90394	9.09947	102	10.90053	10.00341	1	9.99659	50
11	.09707	100	.90293	.10049	102	.89951	.00342	2	.99658	49
12	.09807	100	.90193	.10150	101	.89850	.00344	1	.99656	48
13	.09907	99	.90093	.10252	102	.89748	.00345	2	.99655	47
14	.10006	100	.89994	.10353	101	.89647	.00347	2	.99653	46
15	9.10106	99	10.89894	9.10454	101	10.89546	10.00349	1	9.99651	45
16	.10205	99	.89795	.10555	101	.89445	.00350	2	.99650	44
17	.10304	98	.89696	.10656	100	.89344	.00352	1	.99648	43
18	.10402	99	.89598	.10756	100	.89244	.00353	2	.99647	42
19	.10501	98	.89499	.10856	100	.89144	.00355	2	.99645	41
20	9.10599	98	10.89401	9.10956	100	10.89044	10.00357	1	9.99643	40
21	.10697	98	.89303	.11056	99	.88944	.00358	2	.99642	39
22	.10795	98	.89205	.11155	99	.88845	.00360	2	.99640	38
23	.10893	98	.89107	.11254	99	.88746	.00362	2	.99638	37
24	.10990	97	.89010	.11353	99	.88647	.00363	1	.99637	36
25	9.11087	97	10.88913	9.11452	99	10.88548	10.00365	2	9.99635	35
26	.11184	97	.88816	.11551	99	.88449	.00367	2	.99633	34
27	.11281	96	.88719	.11649	98	.88351	.00368	1	.99632	33
28	.11377	96	.88623	.11747	98	.88253	.00370	2	.99630	32
29	.11474	96	.88526	.11845	98	.88155	.00371	1	.99629	31
30	9.11570	96	10.88430	9.11943	97	10.88057	10.00373	2	9.99627	30
31	.11666	95	.88334	.12040	97	.87960	.00375	2	.99625	29
32	.11761	96	.88239	.12138	98	.87862	.00376	1	.99624	28
33	.11857	95	.88143	.12235	97	.87765	.00378	2	.99622	27
34	.11952	95	.88048	.12332	97	.87668	.00380	2	.99620	26
35	9.12047	95	10.87953	9.12428	97	10.87572	10.00382	1	9.99618	25
36	.12142	94	.87858	.12525	97	.87475	.00383	2	.99617	24
37	.12236	94	.87764	.12621	96	.87379	.00385	2	.99615	23
38	.12331	95	.87669	.12717	96	.87283	.00387	2	.99613	22
39	.12425	94	.87575	.12813	96	.87187	.00388	1	.99612	21
40	9.12519	93	10.87481	9.12909	95	10.87091	10.00390	2	9.99610	20
41	.12612	93	.87388	.13004	95	.86996	.00392	1	.99608	19
42	.12706	93	.87294	.13099	95	.86901	.00393	2	.99607	18
43	.12799	93	.87201	.13194	95	.86806	.00395	2	.99605	17
44	.12892	93	.87108	.13289	95	.86711	.00397	2	.99603	16
45	9.12985	93	10.87015	9.13384	94	10.86616	10.00399	1	9.99601	15
46	.13078	93	.86922	.13478	95	.86522	.00400	2	.99600	14
47	.13171	92	.86829	.13573	94	.86427	.00402	2	.99598	13
48	.13263	92	.86737	.13667	94	.86333	.00404	1	.99596	12
49	.13355	92	.86645	.13761	93	.86239	.00405	2	.99595	11
50	9.13447	92	10.86553	9.13854	93	10.86146	10.00407	2	9.99593	10
51	.13539	91	.86461	.13948	94	.86052	.00409	2	.99591	9
52	.13630	92	.86370	.14041	93	.85959	.00411	1	.99589	8
53	.13722	91	.86278	.14134	93	.85866	.00412	2	.99588	7
54	.13813	91	.86187	.14227						

**TABLE 3**  
Common Logarithms of Trigonometric Functions (offset +10)

8° → ↓	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 171° ↓	
0	9.14356	89	10.85644	9.14780	92	10.85220	10.00425	1	9.99575	60
1	.14445	90	.85555	.14872	91	.85128	.00426	2	.99574	59
2	.14535	89	.85465	.14963	91	.85037	.00428	2	.99572	58
3	.14624	89	.85376	.15054	91	.84946	.00430	2	.99570	57
4	.14714	90	.85286	.15145	91	.84855	.00432	2	.99568	56
5	9.14803	88	10.85197	9.15236	91	10.84764	10.00434	1	9.99566	55
6	.14891	89	.85109	.15327	90	.84673	.00435	2	.99565	54
7	.14980	88	.85020	.15417	90	.84583	.00437	2	.99563	53
8	.15069	89	.84931	.15508	91	.84492	.00439	2	.99561	52
9	.15157	88	.84843	.15598	90	.84402	.00441	2	.99559	51
10	9.15245	88	10.84755	9.15688	89	10.84312	10.00443	1	9.99557	50
11	.15333	88	.84667	.15777	90	.84223	.00444	2	.99556	49
12	.15421	87	.84579	.15867	89	.84133	.00446	2	.99554	48
13	.15508	88	.84492	.15956	90	.84044	.00448	2	.99552	47
14	.15596	87	.84404	.16046	89	.83954	.00450	2	.99550	46
15	9.15683	87	10.84317	9.16135	89	10.83865	10.00452	2	9.99548	45
16	.15770	87	.84230	.16224	88	.83776	.00454	1	.99546	44
17	.15857	87	.84143	.16312	88	.83688	.00455	2	.99545	43
18	.15944	86	.84056	.16401	89	.83599	.00457	2	.99543	42
19	.16030	86	.83970	.16489	88	.83511	.00459	2	.99541	41
20	9.16116	86	10.83884	9.16577	88	10.83423	10.00461	2	9.99539	40
21	.16203	86	.83797	.16665	88	.83335	.00463	2	.99537	39
22	.16289	85	.83711	.16753	88	.83247	.00465	2	.99535	38
23	.16374	86	.83626	.16841	87	.83159	.00467	1	.99533	37
24	.16460	85	.83540	.16928	88	.83072	.00468	2	.99532	36
25	9.16545	86	10.83455	9.17016	87	10.82984	10.00470	2	9.99530	35
26	.16631	85	.83369	.17103	87	.82897	.00472	2	.99528	34
27	.16716	85	.83284	.17190	87	.82810	.00474	2	.99526	33
28	.16801	85	.83199	.17277	87	.82723	.00476	2	.99524	32
29	.16886	84	.83114	.17363	86	.82637	.00478	2	.99522	31
30	9.16970	85	10.83030	9.17450	86	10.82550	10.00480	2	9.99520	30
31	.17055	84	.82945	.17536	86	.82464	.00482	1	.99518	29
32	.17139	84	.82861	.17622	86	.82378	.00483	2	.99517	28
33	.17223	84	.82777	.17708	86	.82292	.00485	2	.99515	27
34	.17307	84	.82693	.17794	86	.82206	.00487	2	.99513	26
35	9.17391	83	10.82609	9.17880	85	10.82120	10.00489	2	9.99511	25
36	.17474	84	.82526	.17965	86	.82035	.00491	2	.99509	24
37	.17558	83	.82442	.18051	85	.81949	.00493	2	.99507	23
38	.17641	83	.82359	.18136	85	.81864	.00495	2	.99505	22
39	.17724	83	.82276	.18221	85	.81779	.00497	2	.99503	21
40	9.17807	83	10.82193	9.18306	85	10.81694	10.00499	2	9.99501	20
41	.17890	83	.82110	.18391	84	.81609	.00501	2	.99499	19
42	.17973	82	.82027	.18475	85	.81525	.00503	2	.99497	18
43	.18055	82	.81945	.18560	84	.81440	.00505	2	.99495	17
44	.18137	83	.81863	.18644	84	.81356	.00506	1	.99494	16
45	9.18220	82	10.81780	9.18728	84	10.81272	10.00508	2	9.99492	15
46	.18302	81	.81698	.18812	84	.81188	.00510	2	.99490	14
47	.18383	82	.81617	.18896	83	.81104	.00512	2	.99488	13
48	.18465	82	.81535	.18979	84	.81021	.00514	2	.99486	12
49	.18547	81	.81453	.19063	83	.80937	.00516	2	.99484	11
50	9.18628	81	10.81372	9.19146	83	10.80854	10.00518	2	9.99482	10
51	.18709	81	.81291	.19229	83	.80771	.00520	2	.99480	9
52	.18790	81	.81210	.19312	83	.80688	.00522	2	.99478	8
53	.18871	81	.81129	.19395	83	.80605	.00524	2	.99476	7
54	.18952	81	.81048	.19478	83	.80522	.00526	2	.99474	6
55	9.19033	80	10.80967	9.19561	82	10.80439	10.00528	2	9.99472	5
56	.19113	80	.80887	.19643	82	.80357	.00530	2	.99470	4
57	.19193	80	.80807	.19725	82	.80275	.00532	2	.99468	3
58	.19273	80	.80727	.19807	82	.80193	.00534	2	.99466	2
59	.19353	80	.80647	.19889	82	.80111	.00536	2	.99464	1
60	9.19433	80	10.80567	9.19971	82	10.80029	10.00538	2	9.99462	0
↑ 98° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 81°	↑

**TABLE 3**  
Common Logarithms of Trigonometric Functions (offset +10)

9° → ↓	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 170° ↓	
0	9.19433	80	10.80567	9.19971	82	10.80029	10.00538	2	9.99462	60
1	.19513	79	.80487	.20053	81	.79947	.00540	2	.99460	59
2	.19592	80	.80408	.20134	81	.79866	.00542	2	.99458	58
3	.19672	79	.80328	.20216	82	.79784	.00544	2	.99456	57
4	.19751	79	.80249	.20297	81	.79703	.00546	2	.99454	56
5	9.19830	79	10.80170	9.20378	81	10.79622	10.00548	2	9.99452	55
6	.19909	79	.80091	.20459	81	.79541	.00550	2	.99450	54
7	.19988	79	.80012	.20540	81	.79460	.00552	2	.99448	53
8	.20067	78	.79933	.20621	81	.79379	.00554	2	.99446	52
9	.20145	78	.79855	.20701	80	.79299	.00556	2	.99444	51
10	9.20223	78	10.80177	9.20782	80	10.79218	10.00558	2	9.99442	50
11	.20302	79	.79698	.20862	80	.79138	.00560	2	.99440	49
12	.20380	78	.79620	.20942	80	.79058	.00562	2	.99438	48
13	.20458	77	.79542	.21022	80	.78978	.00564	2	.99436	47
14	.20535	78	.79465	.21102	80	.78898	.00566	2	.99434	46
15	9.20613	78	10.79387	9.21182	79	10.78818	10.00568	2	9.99432	45
16	.20691	77	.79309	.21261	79	.78739	.00570	3	.99429	44
17	.20768	77	.79232	.21341	80	.78659	.00572	2	.99427	43
18	.20845	77	.79155	.21420	79	.78580	.00574	2	.99425	42
19	.20922	77	.79078	.21499	79	.78501	.00576	2	.99423	41
20	9.20999	77	10.79001	9.21578	79	10.78422	10.00578	2	9.99421	40
21	.21076	77	.78924	.21657	79	.78343	.00580	2	.99419	39
22	.21153	76	.78847	.21736	78	.78264	.00582	2	.99417	38
23	.21229	77	.78771	.21814	78	.78186	.00584	2	.99415	37
24	.21306	76	.78694	.21893	79	.78107	.00586	2	.99413	36
25	9.21382	76	10.78618	9.21971	78	10.78029	10.00588	2	9.99411	35
26	.21458	76	.78542	.22049	78	.77951	.00590	2	.99409	34
27	.21534	76	.78466	.22127	78	.77873	.00592	2	.99407	33
28	.21610	75	.78390	.22205	78	.77795	.00594	3	.99404	32
29	.21685	76	.78315	.22283	78	.77717	.00596	2	.99402	31
30	9.21761	75	10.78239	9.22361	78	10.77639	10.00600	2	9.99400	30
31	.21836	76	.78164	.22438	78	.77562	.00602	2	.99398	29
32	.21912	76	.78088	.22516	78	.77484	.00604	2	.99396	28
33	.21987	75	.78013	.22593	77	.77407	.00606	2	.99394	27
34	.22062	75	.77938	.22670	77	.77330	.00608	2	.99392	26
35	9.22137	74	10.78163	9.22747	77	10.77253	10.00610	2	9.99390	25
36	.22211	75	.77889	.22824	77	.77176	.00612	3	.99388	24
37	.22286	75	.77814	.22901	77	.77099	.00614	2	.99385	23
38	.22361	74	.77739	.22977	76	.77023	.00616	2	.99383	22
39	.22435	75	.77665	.23054	77	.76946	.00618	2	.99381	21
40	9.22509	74	10.77491	9.23130	76	10.76870	10.00620	2	9.99379	20
41	.22583	74	.77417	.23206	77	.76794	.00622	2	.99377	19
42	.22657	74	.77343	.23283	76	.76717	.00624	3	.99375	18
43	.22731	74	.77269	.23359	76	.76641	.00626	3	.99372	17
44	.22805	73	.77195	.23435	76	.76565	.00628	2	.99370	16
45	9.22878	74	10.77122	9.23510	75	10.76490	10.00630	2	9.99368	15
46	.22952	73	.77048	.23586	75	.76414	.00632	2	.99366	14
47	.23025	73	.76975	.23661	75	.76339	.00634	2	.99364	13
48	.23098	73	.76902	.23737	76	.76263	.00636	2	.99362	12
49	.23171	73	.76829	.23812	75	.76188	.00638	3	.99359	11
50	9.23244	73	10.77056	9.23887	75	10.76113	10.00640	2	9.99357	10
51	.23317	73	.76763	.23962	75	.76038	.00642	2	.99355	9
52	.23390	72	.76680	.24037	75	.75963	.00644	2	.99353	8
53	.23462	72	.76598	.24112	75	.75888	.00646	3	.99351	7
54	.23535	72	.76515	.24186	74	.75814	.00648	2	.99348	6

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
10° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 169°	
0	9.23967	72	10.76033	9.24632	74	10.75368	10.00665	2	9.99335	60
1	.24039	71	.75961	.24706	73	.75294	.00667	2	.99333	59
2	.24110	71	.75890	.24779	74	.75221	.00669	2	.99331	58
3	.24181	72	.75819	.24853	73	.75147	.00672	3	.99328	57
4	.24253	71	.75747	.24926	74	.75074	.00674	2	.99326	56
5	9.24324	71	10.75676	9.25000	73	10.75000	10.00676	2	9.99324	55
6	.24395	71	.75605	.25073	73	.74927	.00678	2	.99322	54
7	.24466	70	.75534	.25146	73	.74854	.00681	3	.99319	53
8	.24536	71	.75464	.25219	73	.74781	.00683	2	.99317	52
9	.24607	70	.75393	.25292	73	.74708	.00685	2	.99315	51
10	9.24677	71	10.75323	9.25365	72	10.74635	10.00687	3	9.99313	50
11	.24748	70	.75252	.25437	73	.74563	.00690	2	.99310	49
12	.24818	70	.75182	.25510	72	.74490	.00692	2	.99308	48
13	.24888	70	.75112	.25582	73	.74418	.00694	2	.99306	47
14	.24958	70	.75042	.25655	72	.74345	.00696	3	.99304	46
15	9.25028	70	10.74972	9.25727	72	10.74273	10.00699	2	9.99301	45
16	.25098	70	.74902	.25799	72	.74201	.00701	2	.99299	44
17	.25168	69	.74832	.25871	72	.74129	.00703	3	.99297	43
18	.25237	70	.74763	.25943	72	.74057	.00706	2	.99294	42
19	.25307	69	.74693	.26015	71	.73985	.00708	2	.99292	41
20	9.25376	69	10.74624	9.26086	72	10.73914	10.00710	2	9.99290	40
21	.25445	69	.74555	.26158	71	.73842	.00712	3	.99288	39
22	.25514	69	.74486	.26229	72	.73771	.00715	2	.99285	38
23	.25583	69	.74417	.26301	72	.73699	.00717	3	.99283	37
24	.25652	69	.74348	.26372	71	.73628	.00719	2	.99281	36
25	9.25721	69	10.74279	9.26443	71	10.73557	10.00722	2	9.99278	35
26	.25790	68	.74210	.26514	71	.73486	.00724	2	.99276	34
27	.25858	69	.74142	.26585	70	.73415	.00726	3	.99274	33
28	.25927	68	.74073	.26655	70	.73345	.00729	2	.99271	32
29	.25995	68	.74005	.26726	71	.73274	.00731	2	.99269	31
30	9.26063	68	10.73937	9.26797	70	10.73203	10.00733	3	9.99267	30
31	.26131	68	.73869	.26868	70	.73133	.00736	2	.99264	29
32	.26199	68	.73801	.26939	71	.73063	.00738	2	.99262	28
33	.26267	68	.73733	.27008	70	.72992	.00740	3	.99260	27
34	.26335	68	.73665	.27078	70	.72922	.00743	2	.99257	26
35	9.26403	67	10.73597	9.27148	70	10.72852	10.00745	3	9.99255	25
36	.26470	68	.73530	.27218	70	.72782	.00748	2	.99252	24
37	.26538	67	.73462	.27288	69	.72712	.00750	2	.99250	23
38	.26605	67	.73395	.27357	69	.72643	.00752	3	.99248	22
39	.26672	67	.73328	.27427	70	.72573	.00755	2	.99245	21
40	9.26739	67	10.73261	9.27496	70	10.72504	10.00757	2	9.99243	20
41	.26806	67	.73194	.27566	69	.72434	.00759	3	.99241	19
42	.26873	67	.73127	.27635	69	.72365	.00762	2	.99238	18
43	.26940	67	.73060	.27704	69	.72296	.00764	3	.99236	17
44	.27007	66	.72993	.27773	69	.72227	.00767	2	.99233	16
45	9.27073	67	10.72927	9.27842	69	10.72158	10.00769	2	9.99231	15
46	.27140	66	.72860	.27911	69	.72089	.00771	3	.99229	14
47	.27206	67	.72794	.27980	69	.72020	.00774	2	.99226	13
48	.27273	66	.72727	.28049	68	.71951	.00776	3	.99224	12
49	.27339	66	.72661	.28117	69	.71883	.00779	2	.99221	11
50	9.27405	66	10.72595	9.28186	68	10.71814	10.00781	2	9.99219	10
51	.27471	66	.72529	.28254	69	.71746	.00783	3	.99217	9
52	.27537	65	.72463	.28323	68	.71677	.00786	2	.99214	8
53	.27602	66	.72398	.28391	68	.71609	.00788	3	.99212	7
54	.27668	66	.72332	.28459	68	.71541	.00791	2	.99209	6
55	9.27734	65	10.72266	9.28527	68	10.71473	10.00793	3	9.99207	5
56	.27799	65	.72201	.28595	67	.71405	.00796	2	.99204	4
57	.27864	66	.72136	.28662	68	.71338	.00798	2	.99202	3
58	.27930	65	.72070	.28730	68	.71270	.00800	3	.99200	2
59	.27995	65	.72005	.28798	68	.71202	.00803	3	.99197	1
60	9.28060	65	10.71940	9.28865	67	10.71135	10.00805	2	9.99195	0
↑ 100° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 79°	↑

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
11° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 168°	
0	9.28060	65	10.71940	9.28865	68	10.71135	10.00805	3	9.99195	60
1	.28125	65	.71875	.28933	67	.71067	.00808	3	.99192	59
2	.28190	64	.71810	.29000	67	.71000	.00810	2	.99190	58
3	.28254	65	.71746	.29067	67	.70933	.00813	3	.99187	57
4	.28319	65	.71681	.29134	67	.70866	.00815	2	.99185	56
5	9.28384	64	10.71616	9.29201	67	10.70799	10.00818	2	9.99182	55
6	.28448	64	.71552	.29268	67	.70732	.00820	3	.99180	54
7	.28512	64	.71488	.29335	67	.70665	.00823	3	.99177	53
8	.28577	65	.71423	.29402	67	.70598	.00825	2	.99175	52
9	.28641	64	.71359	.29468	66	.70532	.00828	3	.99172	51
10	9.28705	64	10.71295	9.29535	66	10.70465	10.00830	3	9.99170	50
11	.28769	64	.71231	.29601	67	.70399	.00833	2	.99167	49
12	.28833	63	.71167	.29668	66	.70332	.00835	3	.99165	48
13	.28896	64	.71104	.29734	66	.70266	.00838	2	.99162	47
14	.28960	64	.71040	.29800	66	.70200	.00840	3	.99160	46
15	9.29024	63	10.70976	9.29866	66	10.70134	10.00843	2	9.99157	45
16	.29087	63	.70913	.29932	66	.70068	.00845	3	.99155	44
17	.29150	64	.70850	.29998	66	.70002	.00848	2	.99152	43
18	.29214	63	.70786	.30064	66	.69936	.00850	3	.99150	42
19	.29277	63	.70723	.30130	66	.69870	.00853	2	.99147	41
20	9.29340	63	10.70660	9.30195	66	10.69805	10.00855	3	9.99145	40
21	.29403	63	.70597	.30261	65	.69739	.00858	2	.99142	39
22	.29466	63	.70534	.30326	65	.69674	.00860	3	.99140	38
23	.29529	63	.70471	.30391	65	.69609	.00863	2	.99137	37
24	.29591	63	.70409	.30457	66	.69543	.00865	2	.99135	36
25	9.29654	62	10.70346	9.30522	65	10.69478	10.00868	2	9.99132	35
26	.29716	62	.70284	.30587	65	.69413	.00870	3	.99130	34
27	.29779	62	.70221	.30652	65	.69348	.00873	3	.99127	33
28	.29841	62	.70159	.30717	65	.69283	.00876	2	.99124	32
29	.29903	63	.70097	.30782	65	.69218	.00878	3	.99122	31
30	9.29966	62	10.70034	9.30846	65	10.69154	10.00881	2	9.99119	30
31	.30028	62	.69972	.30911	65	.69089	.00883	3	.99117	29
32	.30090	61	.69910	.30975	64	.69025	.00886	2	.99114	28
33	.30151	62	.69849	.31040	65	.68960	.00888	3	.99112	27
34	.30213	62	.69787	.31104	64	.68896	.00891	3	.99109	26
35	9.30275	61	10.69725	9.31168	65	10.68832	10.00894	2	9.99106	25
36	.30336	62	.69664	.31233	64	.68767	.00896	3	.99104	24
37	.30398	61	.69602	.31297	64	.68703	.00899	2	.99101	23
38	.30459	62	.69541	.31361	64	.68639	.00901	3	.99099	22
39	.30521	61	.69479	.31425	64	.68575	.00904	3	.99096	21
40	9.30582	61	10.69418	9.31489	63	10.68511	10.00907	2	9.99093	20
41	.30643	61	.69357	.31552	64	.68448	.00909	3	.99091	19
42	.30704	61	.69296	.31616	63	.68384	.00912	2	.99088	18
43	.30765	61	.69235	.31679	63	.68321	.00914	2	.99086	17
44	.30826	61	.69174	.31743	63	.68257	.00917	3	.99083	16
45	9.30887	60	10.69113	9.31806	64	10.68194	10.00920	2	9.99080	15
46	.30947	61	.69053	.31870	63	.68130	.00922	3	.99078	14
47	.31008	60	.68992	.31933	63	.68067	.00925	3	.99075	13
48	.31068	61	.68932	.31996	63	.68004	.00928	2	.99072	12
49	.31129	60	.68871	.32059	63	.67941	.00930	3	.99070	11
50	9.31189	61	10.68811	9.32122	63	10.67878	10.00933	2	9.99067	10
51	.31250	60	.68750	.32185	63	.67815	.00936	3	.99064	9
52	.31310	60	.68690	.32248	63	.67752	.00938	3	.99062	8
53	.31370	60	.68630	.32311	62	.67689	.00941	3	.99059	7
54	.31430	60	.68570	.32373	63	.67627	.00944	2	.99056	6
55	9.31490	59	10.68510	9.32436	62	10.67564	10.00946	3	9.99	

**TABLE 3**  
Common Logarithms of Trigonometric Functions (offset +10)

12° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 167°	
0	9.31788		10.68212	9.32747		10.67253	10.00960		9.99040	60
1	.31847	59	.68153	.32810	63	.67190	.00962	2	.99038	59
2	.31907	60	.68093	.32872	62	.67128	.00965	3	.99035	58
3	.31966	59	.68034	.32933	61	.67067	.00968	3	.99032	57
4	.32025	59	.67975	.32995	62	.67005	.00970	2	.99030	56
5	9.32084	59	10.67916	9.33057	62	10.66943	10.00973	3	9.99027	55
6	.32143	59	.67857	.33119	61	.66881	.00976	3	.99024	54
7	.32202	59	.67798	.33180	61	.66820	.00978	2	.99022	53
8	.32261	58	.67739	.33242	62	.66758	.00981	3	.99019	52
9	.32319	59	.67681	.33303	61	.66697	.00984	3	.99016	51
10	9.32378	59	10.67622	9.33365	61	10.66635	10.00987	2	9.99013	50
11	.32437	58	.67563	.33426	61	.66574	.00989	3	.99011	49
12	.32495	58	.67505	.33487	61	.66513	.00992	3	.99008	48
13	.32553	59	.67447	.33548	61	.66452	.00995	3	.99005	47
14	.32612	58	.67388	.33609	61	.66391	.00998	2	.99002	46
15	9.32670	58	10.67330	9.33670	61	10.66330	10.01000	3	9.99000	45
16	.32728	58	.67272	.33731	61	.66269	.01003	3	.98997	44
17	.32786	58	.67214	.33792	61	.66208	.01006	3	.98994	43
18	.32844	58	.67156	.33853	60	.66147	.01009	2	.98991	42
19	.32902	58	.67098	.33913	60	.66087	.01011	3	.98989	41
20	9.32960	58	10.67040	9.33974	61	10.66026	10.01014	3	9.98986	40
21	.33018	57	.66982	.34034	61	.65966	.01017	3	.98983	39
22	.33075	57	.66925	.34095	60	.65905	.01020	3	.98980	38
23	.33133	57	.66867	.34155	60	.65845	.01022	2	.98978	37
24	.33190	58	.66810	.34215	60	.65785	.01025	3	.98975	36
25	9.33248	57	10.66752	9.34276	61	10.65724	10.01028	3	9.98972	35
26	.33305	57	.66695	.34336	60	.65664	.01031	3	.98969	34
27	.33362	58	.66638	.34396	60	.65604	.01033	2	.98967	33
28	.33420	58	.66580	.34456	60	.65544	.01036	3	.98964	32
29	.33477	57	.66523	.34516	60	.65484	.01039	3	.98961	31
30	9.33534	57	10.66466	9.34576	59	10.65424	10.01042	3	9.98958	30
31	.33591	56	.66409	.34635	60	.65365	.01045	2	.98955	29
32	.33647	57	.66353	.34695	60	.65305	.01047	3	.98953	28
33	.33704	57	.66296	.34755	60	.65245	.01050	3	.98950	27
34	.33761	56	.66239	.34814	60	.65186	.01053	3	.98947	26
35	9.33818	57	10.66182	9.34874	59	10.65126	10.01056	3	9.98944	25
36	.33874	57	.66126	.34933	59	.65067	.01059	3	.98941	24
37	.33931	56	.66069	.34992	59	.65008	.01062	2	.98938	23
38	.33987	56	.66013	.35051	59	.64949	.01064	3	.98936	22
39	.34043	57	.65957	.35111	60	.64889	.01067	2	.98933	21
40	9.34100	57	10.65900	9.35170	59	10.64830	10.01070	3	9.98930	20
41	.34156	56	.65844	.35229	59	.64771	.01073	3	.98927	19
42	.34212	56	.65788	.35288	59	.64712	.01076	3	.98924	18
43	.34268	56	.65732	.35347	58	.64653	.01079	2	.98921	17
44	.34324	56	.65676	.35405	59	.64595	.01081	3	.98919	16
45	9.34380	56	10.65620	9.35464	59	10.64536	10.01084	3	9.98916	15
46	.34436	55	.65564	.35523	58	.64477	.01087	3	.98913	14
47	.34491	56	.65509	.35581	59	.64419	.01090	3	.98910	13
48	.34547	55	.65453	.35640	58	.64360	.01093	3	.98907	12
49	.34602	56	.65398	.35698	59	.64302	.01096	3	.98904	11
50	9.34658	55	10.65342	9.35757	58	10.64243	10.01099	3	9.98901	10
51	.34713	56	.65287	.35815	58	.64185	.01102	2	.98898	9
52	.34769	55	.65231	.35873	58	.64127	.01104	3	.98896	8
53	.34824	55	.65176	.35931	58	.64069	.01107	3	.98893	7
54	.34879	55	.65121	.35989	58	.64011	.01110	3	.98890	6
55	9.34934	55	10.65066	9.36047	58	10.63953	10.01113	3	9.98887	5
56	.34989	55	.65011	.36105	58	.63895	.01116	3	.98884	4
57	.35044	55	.64956	.36163	58	.63837	.01119	3	.98881	3
58	.35099	55	.64901	.36221	58	.63779	.01122	3	.98878	2
59	.35154	55	.64846	.36279	57	.63721	.01125	3	.98875	1
60	9.35209	55	10.64791	9.36336	57	10.63664	10.01128	3	9.98872	0
↑ 102° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 77°	

**TABLE 3**  
Common Logarithms of Trigonometric Functions (offset +10)

13° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 166°	
0	9.35209		10.64791	9.36336		10.63664	10.01128		9.98872	60
1	.35263	54	.64737	.36394	58	.63606	.01131	3	.98869	59
2	.35318	55	.64682	.36452	58	.63548	.01133	2	.98867	58
3	.35373	55	.64627	.36509	57	.63491	.01136	3	.98864	57
4	.35427	54	.64573	.36566	57	.63434	.01139	3	.98861	56
5	9.35481	54	10.64519	9.36624	58	10.63376	10.01142	3	9.98858	55
6	.35536	55	.64464	.36681	57	.63319	.01145	3	.98855	54
7	.35590	54	.64410	.36738	57	.63262	.01148	3	.98852	53
8	.35644	54	.64356	.36795	57	.63205	.01151	3	.98849	52
9	.35698	54	.64302	.36852	57	.63148	.01154	3	.98846	51
10	9.35752	54	10.64248	9.36909	57	10.63091	10.01157	3	9.98843	50
11	.35806	54	.64194	.36966	57	.63034	.01160	3	.98840	49
12	.35860	54	.64140	.37023	57	.62977	.01163	3	.98837	48
13	.35914	54	.64086	.37080	57	.62920	.01166	3	.98834	47
14	.35968	54	.64032	.37137	57	.62863	.01169	3	.98831	46
15	9.36022	54	10.63978	9.37193	57	10.62807	10.01172	3	9.98828	45
16	.36075	53	.63925	.37250	56	.62750	.01175	3	.98825	44
17	.36129	53	.63871	.37306	56	.62694	.01178	3	.98822	43
18	.36182	53	.63818	.37363	56	.62637	.01181	3	.98819	42
19	.36236	53	.63764	.37419	56	.62581	.01184	3	.98816	41
20	9.36289	53	10.63711	9.37476	57	10.62524	10.01187	3	9.98813	40
21	.36342	53	.63658	.37532	56	.62468	.01190	3	.98810	39
22	.36395	53	.63605	.37588	56	.62412	.01193	3	.98807	38
23	.36449	53	.63551	.37644	56	.62356	.01196	3	.98804	37
24	.36502	53	.63498	.37700	56	.62300	.01199	3	.98801	36
25	9.36555	53	10.63445	9.37756	56	10.62244	10.01202	3	9.98798	35
26	.36608	52	.63392	.37812	56	.62188	.01205	3	.98795	34
27	.36660	52	.63340	.37868	56	.62132	.01208	3	.98792	33
28	.36713	53	.63287	.37924	56	.62076	.01211	3	.98789	32
29	.36766	53	.63234	.37980	56	.62020	.01214	3	.98786	31
30	9.36819	52	10.63181	9.38035	55	10.61965	10.01217	3	9.98783	30
31	.36871	53	.63129	.38091	56	.61909	.01220	3	.98780	29
32	.36924	52	.63076	.38147	56	.61853	.01223	3	.98777	28
33	.36976	52	.63024	.38202	55	.61798	.01226	3	.98774	27
34	.37028	52	.62972	.38257	55	.61743	.01229	3	.98771	26
35	9.37081	53	10.62919	9.38313	56	10.61687	10.01232	3	9.98768	25
36	.37133	52	.62867	.38368	55	.61632	.01235	3	.98765	24
37	.37185	52	.62815	.38423	55	.61577	.01238	3	.98762	23
38	.37237	52	.62763	.38479	55	.61521	.01241	3	.98759	22
39	.37289	52	.62711	.38534	55	.61466	.01244	3	.98756	21
40	9.37341	52	10.62659	9.38589	55	10.61411	10.01247	3	9.98753	20
41	.37393	52	.62607	.38644	55	.61356	.01250	4	.98750	19
42	.37445	52	.62555	.38699	55	.61301	.01253	4	.98746	18
43	.37497	52	.62503	.38754	55	.61246	.01256	3	.98743	17
44	.37549	52	.62451	.38808	55	.61192	.01260	3	.98740	16
45	9.37600	51	10.62400	9.38863	55	10.61137	10.01263	3	9.98737	15
46	.37652	51	.62348	.38918	54	.61082	.01266	3	.98734	14
47	.37703	52	.62297	.38972	54	.61028	.01269	3	.98731	13
48	.37755	51	.62245	.39027	55	.60973	.01272	3	.98728	12
49	.37806	52	.62194	.39082	54	.60918	.01275	3	.98725	11
50	9.37858	51	10.62142	9.39136	54	10.60864	10.01278	3	9.98722	10
51	.37909	51	.62091	.39190	55	.60810	.01281	4	.98719	9
52	.37960	51	.62040	.39245	54	.60755	.01285	4	.98715	8
53	.38011	51	.61989	.39299	54	.60701	.01288	3	.98712	7
54	.38062	51	.61938	.39353	54	.60647	.01291	3	.98709	6
55	9.38113</									



TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
14° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 165°	
0	9.38368		10.61632	9.39677		10.60323	10.01310		9.98690	60
1	.38418	50	.61582	.39731	54	.60269	.01313	3	.98687	59
2	.38469	51	.61531	.39785	54	.60215	.01316	3	.98684	58
3	.38519	50	.61481	.39838	53	.60162	.01319	3	.98681	57
4	.38570	51	.61430	.39892	54	.60108	.01322	3	.98678	56
5	9.38620		10.61380	9.39945		10.60055	10.01325		9.98675	55
6	.38670	50	.61330	.39999	54	.60001	.01329	4	.98671	54
7	.38721	51	.61279	.40052	53	.59948	.01332	3	.98668	53
8	.38771	50	.61229	.40106	54	.59894	.01335	3	.98665	52
9	.38821	51	.61179	.40159	53	.59841	.01338	3	.98662	51
10	9.38871		10.61129	9.40212		10.59788	10.01341		9.98659	50
11	.38921	50	.61079	.40266	54	.59734	.01344	3	.98656	49
12	.38971	51	.61029	.40319	53	.59681	.01348	4	.98652	48
13	.39021	50	.60979	.40372	53	.59628	.01351	3	.98649	47
14	.39071	51	.60929	.40425	53	.59575	.01354	3	.98646	46
15	9.39121		10.60879	9.40478		10.59522	10.01357		9.98643	45
16	.39170	49	.60830	.40531	53	.59469	.01360	4	.98640	44
17	.39220	50	.60780	.40584	53	.59416	.01364	4	.98636	43
18	.39270	49	.60730	.40636	52	.59364	.01367	3	.98633	42
19	.39319	50	.60681	.40689	53	.59311	.01370	3	.98630	41
20	9.39369		10.60631	9.40742		10.59258	10.01373		9.98627	40
21	.39418	49	.60582	.40795	53	.59205	.01377	4	.98623	39
22	.39467	50	.60533	.40847	52	.59153	.01380	3	.98620	38
23	.39517	49	.60483	.40900	53	.59100	.01383	3	.98617	37
24	.39566	50	.60434	.40952	52	.59048	.01386	3	.98614	36
25	9.39615		10.60385	9.41005		10.58995	10.01390		9.98610	35
26	.39664	49	.60336	.41057	52	.58943	.01393	4	.98607	34
27	.39713	50	.60287	.41109	52	.58891	.01396	3	.98604	33
28	.39762	49	.60238	.41161	52	.58839	.01399	3	.98601	32
29	.39811	49	.60189	.41214	53	.58786	.01403	4	.98597	31
30	9.39860		10.60140	9.41266		10.58734	10.01406		9.98594	30
31	.39909	49	.60091	.41318	52	.58682	.01409	3	.98591	29
32	.39958	48	.60042	.41370	52	.58630	.01412	4	.98588	28
33	.40006	49	.59994	.41422	52	.58578	.01416	4	.98584	27
34	.40055	48	.59945	.41474	52	.58526	.01419	3	.98581	26
35	9.40103		10.59897	9.41526		10.58474	10.01422		9.98578	25
36	.40152	49	.59848	.41578	52	.58422	.01426	4	.98574	24
37	.40200	48	.59800	.41629	51	.58371	.01429	3	.98571	23
38	.40249	49	.59751	.41681	52	.58319	.01432	3	.98568	22
39	.40297	48	.59703	.41733	51	.58267	.01435	4	.98565	21
40	9.40346		10.59654	9.41784		10.58216	10.01439		9.98561	20
41	.40394	48	.59606	.41836	52	.58164	.01442	3	.98558	19
42	.40442	48	.59558	.41887	51	.58113	.01445	4	.98555	18
43	.40490	48	.59510	.41939	52	.58061	.01449	4	.98551	17
44	.40538	48	.59462	.41990	51	.58010	.01452	3	.98548	16
45	9.40586		10.59414	9.42041		10.57959	10.01455		9.98545	15
46	.40634	48	.59366	.42093	52	.57907	.01459	4	.98541	14
47	.40682	48	.59318	.42144	51	.57856	.01462	3	.98538	13
48	.40730	48	.59270	.42195	51	.57805	.01465	4	.98535	12
49	.40778	47	.59222	.42246	51	.57754	.01469	3	.98531	11
50	9.40825		10.59175	9.42297		10.57703	10.01472		9.98528	10
51	.40873	48	.59127	.42348	51	.57652	.01475	4	.98525	9
52	.40921	47	.59079	.42399	51	.57601	.01479	3	.98521	8
53	.40968	48	.59032	.42450	51	.57550	.01482	3	.98518	7
54	.41016	47	.58984	.42501	51	.57499	.01485	4	.98515	6
55	9.41063		10.58937	9.42552		10.57448	10.01489		9.98511	5
56	.41111	48	.58889	.42603	50	.57397	.01492	3	.98508	4
57	.41158	47	.58842	.42653	51	.57347	.01495	4	.98505	3
58	.41205	47	.58795	.42704	51	.57296	.01499	4	.98501	2
59	.41252	48	.58748	.42755	51	.57245	.01502	3	.98498	1
60	9.41300		10.58700	9.42805		10.57195	10.01506		9.98494	0
↑ 104° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 75°	

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
15° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 164°	
0	9.41300		10.58700	9.42805		10.57195	10.01506		9.98494	60
1	.41347	47	.58653	.42856	51	.57144	.01509	3	.98491	59
2	.41394	47	.58606	.42906	50	.57094	.01512	3	.98488	58
3	.41441	47	.58559	.42957	51	.57043	.01516	4	.98484	57
4	.41488	47	.58512	.43007	50	.56993	.01519	3	.98481	56
5	9.41535		10.58465	9.43057		10.56943	10.01523		9.98477	55
6	.41582	47	.58418	.43108	51	.56892	.01526	3	.98474	54
7	.41628	46	.58372	.43158	50	.56842	.01529	3	.98471	53
8	.41675	47	.58325	.43208	50	.56792	.01533	4	.98467	52
9	.41722	47	.58278	.43258	50	.56742	.01536	3	.98464	51
10	9.41768		10.58232	9.43308		10.56692	10.01540		9.98460	50
11	.41815	46	.58185	.43358	50	.56642	.01543	3	.98457	49
12	.41861	46	.58139	.43408	50	.56592	.01547	4	.98453	48
13	.41908	47	.58092	.43458	50	.56542	.01550	3	.98450	47
14	.41954	46	.58046	.43508	50	.56492	.01553	4	.98447	46
15	9.42001		10.57999	9.43558		10.56442	10.01557		9.98443	45
16	.42047	46	.57953	.43607	49	.56393	.01560	3	.98440	44
17	.42093	46	.57907	.43657	50	.56343	.01564	4	.98436	43
18	.42140	47	.57860	.43707	50	.56293	.01567	3	.98433	42
19	.42186	46	.57814	.43756	49	.56244	.01571	4	.98429	41
20	9.42232		10.57768	9.43806		10.56194	10.01574		9.98426	40
21	.42278	46	.57722	.43855	50	.56145	.01578	3	.98422	39
22	.42324	46	.57676	.43905	49	.56095	.01581	4	.98419	38
23	.42370	46	.57630	.43954	49	.56046	.01585	4	.98415	37
24	.42416	45	.57584	.44004	50	.55996	.01588	3	.98412	36
25	9.42461		10.57539	9.44053		10.55947	10.01591		9.98409	35
26	.42507	46	.57493	.44102	49	.55898	.01595	4	.98405	34
27	.42553	46	.57447	.44151	50	.55849	.01598	4	.98402	33
28	.42599	46	.57401	.44201	50	.55799	.01602	3	.98398	32
29	.42644	45	.57356	.44250	49	.55750	.01605	4	.98395	31
30	9.42690		10.57310	9.44299		10.55701	10.01609		9.98391	30
31	.42735	45	.57265	.44348	49	.55652	.01612	3	.98388	29
32	.42781	45	.57219	.44397	49	.55603	.01616	4	.98384	28
33	.42826	45	.57174	.44446	49	.55554	.01619	3	.98381	27
34	.42872	45	.57128	.44495	49	.55505	.01623	4	.98377	26
35	9.42917		10.57083	9.44544		10.55456	10.01627		9.98373	25
36	.42962	45	.57038	.44592	48	.55408	.01630	4	.98370	24
37	.43008	46	.56992	.44641	49	.55359	.01634	3	.98366	23
38	.43053	45	.56947	.44690	49	.55310	.01637	4	.98363	22
39	.43098	45	.56902	.44738	48	.55262	.01641	3	.98359	21
40	9.43143		10.56857	9.44787		10.55213	10.01644		9.98356	20
41	.43188	45	.56812	.44836	49	.55164	.01648	4	.98352	19
42	.43233	45	.56767	.44884	49	.55116	.01651	4	.98349	18
43	.43278	45	.56722	.44933	49	.55067	.01655	3	.98345	17
44	.43323	44	.56677	.44981	48	.55019	.01658	4	.98342	16
45	9.43367		10.56633	9.45029		10.54971	10.01662		9.98338	15
46	.43412	45	.56588	.45078	49	.54922	.01666	3	.98334	14
47	.43457	45	.56543	.45126	48	.54874	.01669	4	.98331	13
48	.43502	44	.56498	.45174	48	.54826	.01673	4	.98327	12
49	.43546	45	.56454	.45222	48	.54778	.01676	3	.98324	11
50	9.43591		10.56409	9.45271		10.54729	10.01680		9.98320	10
51	.43635	45	.56365	.45319	48	.54681	.01683	4	.98317	9
52	.43680	44	.56320	.45367	48	.54633	.01687	4	.98313	8
53	.43724	45	.56276	.45415	48	.54585	.01691	3	.98309	7
54	.43769	44	.56231	.45463	48	.54537	.01694	4	.98306	6
55	9.43813		10.56187	9.45511		10.54489	10.01698		9.98302	5
56	.43857	44	.56143	.45559	47	.54441	.01701	4	.98299	4
57	.43901	45	.56099	.45606	48	.54394	.01705	4	.98295	3

**TABLE 3**  
Common Logarithms of Trigonometric Functions (offset +10)

16° →		Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 163°		
↓	sin								cos	↓	
0	9.44034		10.55966	9.45750		10.54250	10.01716		9.98284	60	
1	.44078	44	.55922	.45797	47	.54203	.01719	3	.98281	59	
2	.44122	44	.55878	.45845	48	.54155	.01723	4	.98277	58	
3	.44166	44	.55834	.45892	47	.54108	.01727	4	.98273	57	
4	.44210	44	.55790	.45940	48	.54060	.01730	3	.98270	56	
5	9.44253	43		9.45987	47		10.54013	10.01734	4	9.98266	55
6	.44297	44	.55703	.46035	48	.53965	.01738	4	.98262	54	
7	.44341	44	.55659	.46082	47	.53918	.01741	3	.98259	53	
8	.44385	44	.55615	.46130	48	.53870	.01745	4	.98255	52	
9	.44428	43	.55572	.46177	47	.53823	.01749	4	.98251	51	
10	9.44472	44		9.45987	47		10.53776	10.01752	3	9.98248	50
11	.44516	44	.55484	.46271	47	.53729	.01756	4	.98244	49	
12	.44559	43	.55441	.46319	48	.53681	.01760	4	.98240	48	
13	.44602	44	.55398	.46366	47	.53634	.01763	3	.98237	47	
14	.44646	43	.55354	.46413	47	.53587	.01767	4	.98233	46	
15	9.44689	44		9.46460	47		10.53540	10.01771	3	9.98229	45
16	.44733	43	.55267	.46507	47	.53493	.01774	4	.98226	44	
17	.44776	43	.55224	.46554	47	.53446	.01778	4	.98222	43	
18	.44819	43	.55181	.46601	47	.53399	.01782	4	.98218	42	
19	.44862	43	.55138	.46648	46	.53352	.01785	3	.98215	41	
20	9.44905	43		9.46694	47		10.53306	10.01789	4	9.98211	40
21	.44948	44	.55052	.46741	47	.53259	.01793	4	.98207	39	
22	.44992	43	.55008	.46788	47	.53212	.01796	3	.98204	38	
23	.45035	43	.54965	.46835	47	.53165	.01800	4	.98200	37	
24	.45077	43	.54923	.46881	46	.53119	.01804	4	.98196	36	
25	9.45120	43		9.46928	47		10.53072	10.01808	3	9.98192	35
26	.45163	43	.54837	.46975	47	.53025	.01811	4	.98189	34	
27	.45206	43	.54794	.47021	46	.52979	.01815	4	.98185	33	
28	.45249	43	.54751	.47068	47	.52932	.01819	4	.98181	32	
29	.45292	43	.54708	.47114	46	.52886	.01823	4	.98177	31	
30	9.45334	43		9.47160	47		10.52840	10.01826	3	9.98174	30
31	.45377	42	.54623	.47207	47	.52793	.01830	4	.98170	29	
32	.45419	42	.54581	.47253	46	.52747	.01834	4	.98166	28	
33	.45462	43	.54538	.47299	46	.52701	.01838	4	.98162	27	
34	.45504	43	.54496	.47346	47	.52654	.01841	3	.98159	26	
35	9.45547	42		9.47392	46		10.52608	10.01845	4	9.98155	25
36	.45589	43	.54411	.47438	46	.52562	.01849	4	.98151	24	
37	.45632	42	.54368	.47484	46	.52516	.01853	4	.98147	23	
38	.45674	42	.54326	.47530	46	.52470	.01856	3	.98144	22	
39	.45716	42	.54284	.47576	46	.52424	.01860	4	.98140	21	
40	9.45758	43		9.47622	46		10.52378	10.01864	4	9.98136	20
41	.45801	42	.54199	.47668	46	.52332	.01868	4	.98132	19	
42	.45843	42	.54157	.47714	46	.52286	.01871	3	.98129	18	
43	.45885	42	.54115	.47760	46	.52240	.01875	4	.98125	17	
44	.45927	42	.54073	.47806	46	.52194	.01879	4	.98121	16	
45	9.45969	42		9.47852	45		10.52148	10.01883	4	9.98117	15
46	.46011	42	.53989	.47897	46	.52103	.01887	4	.98113	14	
47	.46053	42	.53947	.47943	46	.52057	.01890	3	.98110	13	
48	.46095	41	.53905	.47989	46	.52011	.01894	4	.98106	12	
49	.46136	42	.53864	.48035	45	.51965	.01898	4	.98102	11	
50	9.46178	42		9.48080	46		10.51920	10.01902	4	9.98098	10
51	.46220	42	.53780	.48126	45	.51874	.01906	4	.98094	9	
52	.46262	42	.53738	.48171	45	.51829	.01910	4	.98090	8	
53	.46303	41	.53697	.48217	46	.51783	.01913	3	.98087	7	
54	.46345	41	.53655	.48262	45	.51738	.01917	4	.98083	6	
55	9.46386	42		9.48307	46		10.51693	10.01921	4	9.98079	5
56	.46428	41	.53572	.48353	45	.51647	.01925	4	.98075	4	
57	.46469	42	.53531	.48398	45	.51602	.01929	4	.98071	3	
58	.46511	41	.53489	.48443	46	.51557	.01933	4	.98067	2	
59	.46552	42	.53448	.48489	46	.51511	.01937	4	.98063	1	
60	9.46594	42		9.48534	45		10.51466	10.01940	3	9.98060	0
↑	106° →	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ←	↑	73°

**TABLE 3**  
Common Logarithms of Trigonometric Functions (offset +10)

17° →		Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 162°		
↓	sin								cos	↓	
0	9.46594		10.53406	9.48534		10.51466	10.01940		9.98060	60	
1	.46635	41	.53365	.48579	45	.51421	.01944	4	.98056	59	
2	.46676	41	.53324	.48624	45	.51376	.01948	4	.98052	58	
3	.46717	41	.53283	.48669	45	.51331	.01952	4	.98048	57	
4	.46758	41	.53242	.48714	45	.51286	.01956	4	.98044	56	
5	9.46800	42		9.48759	45		10.51241	10.01960	4	9.98040	55
6	.46841	41	.53159	.48804	45	.51196	.01964	4	.98036	54	
7	.46882	41	.53118	.48849	45	.51151	.01968	4	.98032	53	
8	.46923	41	.53077	.48894	45	.51106	.01971	3	.98029	52	
9	.46964	41	.53036	.48939	45	.51061	.01975	4	.98025	51	
10	9.47005	41		9.48894	45		10.51016	10.01979	4	9.98021	50
11	.47045	40	.52955	.49029	44	.50971	.01983	4	.98017	49	
12	.47086	40	.52914	.49074	44	.50927	.01987	4	.98013	48	
13	.47127	41	.52873	.49118	45	.50882	.01991	4	.98009	47	
14	.47168	41	.52832	.49163	44	.50837	.01995	4	.98005	46	
15	9.47209	40		9.49271	45		10.50793	10.01999	4	9.98001	45
16	.47249	40	.52751	.49252	44	.50748	.02003	4	.97997	44	
17	.47290	40	.52710	.49296	44	.50704	.02007	4	.97993	43	
18	.47330	41	.52670	.49341	44	.50659	.02011	4	.97989	42	
19	.47371	40	.52629	.49385	44	.50615	.02014	3	.97986	41	
20	9.47411	40		9.49430	45		10.50570	10.02018	4	9.97982	40
21	.47452	41	.52548	.49474	44	.50526	.02022	4	.97978	39	
22	.47492	40	.52508	.49519	44	.50481	.02026	4	.97974	38	
23	.47533	40	.52467	.49563	44	.50437	.02030	4	.97970	37	
24	.47573	40	.52427	.49607	44	.50393	.02034	4	.97966	36	
25	9.47613	41		9.49652	45		10.50348	10.02038	4	9.97962	35
26	.47654	40	.52346	.49696	44	.50304	.02042	4	.97958	34	
27	.47694	40	.52306	.49740	44	.50260	.02046	4	.97954	33	
28	.47734	40	.52266	.49784	44	.50216	.02050	4	.97950	32	
29	.47774	40	.52226	.49828	44	.50172	.02054	4	.97946	31	
30	9.47814	40		9.49872	44		10.50128	10.02058	4	9.97942	30
31	.47854	40	.52146	.49916	44	.50084	.02062	4	.97938	29	
32	.47894	40	.52106	.49960	44	.50040	.02066	4	.97934	28	
33	.47934	40	.52066	.50004	44	.49996	.02070	4	.97930	27	
34	.47974	40	.52026	.50048	44	.49952	.02074	4	.97926	26	
35	9.48014	40		9.50092	44		10.49998	10.02078	4	9.97922	25
36	.48054	40	.51946	.50136	44	.49864	.02082	4	.97918	24	
37	.48094	39	.51906	.50180	44	.49820	.02086	4	.97914	23	
38	.48133	40	.51867	.50223	43	.49777	.02090	4	.97910	22	
39	.48173	40	.51827	.50267	44	.49733	.02094	4	.97906	21	
40	9.48213	39		9.50311	44		10.49689	10.02098	4	9.97902	20
41	.48252	40	.51748	.50355	43	.49645	.02102	4	.97898	19	
42	.48292	40	.51708	.50398	44	.49602	.02106	4	.97894	18	
43	.48332	39	.51668	.50442	43	.49558	.02110	4	.97890	17	
44	.48371	40	.51629	.50485	44	.49515	.02114	4	.97886	16	
45	9.48411	39		9.50529	43		10.49471	10.02118	4	9.97882	15
46	.48450	40	.51550	.50572	44	.49428	.02122	4	.97878	14	
47	.48490	39	.51510	.50616	44	.49384	.02126	4	.97874	13	
48	.48529	39	.51471	.50659	43	.49341	.02130	4	.97870	12	
49	.48568	39	.51432	.50703	43	.49297	.02134	4	.97866	11	
50	9.48607	40		9.50746	43		10.49254	10.02139	4	9.97861	10
51	.48647	39	.51353	.50789	44	.49211	.02143	4	.97857	9	
52	.48686	39	.51314	.50833	43	.49167	.02147	4	.97853	8	
53	.48725	39	.51275	.50876	43	.49124	.02151	4	.97849	7	
54	.48764	39	.51236	.50919	43	.49081	.02155	4	.97845	6	
55	9.48803										

**TABLE 3**  
Common Logarithms of Trigonometric Functions (offset +10)

18° →		Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	← 161°	
↓	sin								cos	↑
0	9.48998	39	10.51002	9.51178	43	10.48822	10.02179	4	9.97821	60
1	.49037	39	.50963	.51221	43	.48779	.52183	4	.97817	59
2	.49076	39	.50924	.51264	43	.48736	.52188	5	.97812	58
3	.49115	39	.50885	.51306	42	.48694	.52192	4	.97808	57
4	.49153	38	.50847	.51349	43	.48651	.52196	4	.97804	56
5	9.49192	39	10.50808	9.51392	43	10.48608	10.02200	4	9.97800	55
6	.49231	39	.50769	.51435	43	.48565	.52204	4	.97796	54
7	.49269	38	.50731	.51478	43	.48522	.52208	4	.97792	53
8	.49308	39	.50692	.51520	42	.48480	.52212	4	.97788	52
9	.49347	38	.50653	.51563	43	.48437	.52216	4	.97784	51
10	9.49385	39	10.50615	9.51606	42	10.48394	10.02221	4	9.97779	50
11	.49424	38	.50576	.51648	43	.48352	.52225	4	.97775	49
12	.49462	38	.50538	.51691	43	.48309	.52229	4	.97771	48
13	.49500	39	.50500	.51734	43	.48266	.52233	4	.97767	47
14	.49539	38	.50461	.51776	42	.48224	.52237	4	.97763	46
15	9.49577	38	10.50423	9.51819	42	10.48181	10.02241	5	9.97759	45
16	.49615	39	.50385	.51861	42	.48139	.52246	4	.97755	44
17	.49654	38	.50346	.51903	43	.48097	.52250	4	.97750	43
18	.49692	38	.50308	.51946	42	.48054	.52254	4	.97746	42
19	.49730	38	.50270	.51988	43	.48012	.52258	4	.97742	41
20	9.49768	38	10.50232	9.52031	42	10.47969	10.02262	4	9.97738	40
21	.49806	38	.50194	.52073	42	.47927	.52266	5	.97734	39
22	.49844	38	.50156	.52115	42	.47885	.52271	4	.97729	38
23	.49882	38	.50118	.52157	42	.47843	.52275	5	.97725	37
24	.49920	38	.50080	.52200	43	.47800	.52279	4	.97721	36
25	9.49958	38	10.50042	9.52242	42	10.47758	10.02283	4	9.97717	35
26	.49996	38	.50004	.52284	42	.47716	.52287	4	.97713	34
27	.50034	38	.49966	.52326	42	.47674	.52292	5	.97708	33
28	.50072	38	.49928	.52368	42	.47632	.52296	4	.97704	32
29	.50110	38	.49890	.52410	42	.47590	.52300	4	.97700	31
30	9.50148	37	10.49852	9.52452	42	10.47548	10.02304	5	9.97696	30
31	.50185	38	.49815	.52494	42	.47506	.52309	5	.97691	29
32	.50223	38	.49777	.52536	42	.47464	.52313	4	.97687	28
33	.50261	37	.49739	.52578	42	.47422	.52317	4	.97683	27
34	.50298	38	.49702	.52620	41	.47380	.52321	5	.97679	26
35	9.50336	37	10.49664	9.52661	42	10.47339	10.02326	4	9.97674	25
36	.50374	38	.49626	.52703	42	.47297	.52330	4	.97670	24
37	.50411	37	.49589	.52745	42	.47255	.52334	4	.97666	23
38	.50449	38	.49551	.52787	42	.47213	.52338	4	.97662	22
39	.50486	37	.49514	.52829	41	.47171	.52343	5	.97657	21
40	9.50523	38	10.49477	9.52870	42	10.47130	10.02347	4	9.97653	20
41	.50561	37	.49439	.52912	41	.47088	.52351	4	.97649	19
42	.50598	37	.49402	.52953	42	.47047	.52355	5	.97645	18
43	.50635	38	.49365	.52995	42	.47005	.52360	4	.97640	17
44	.50673	37	.49327	.53037	41	.46963	.52364	4	.97636	16
45	9.50710	37	10.49290	9.53078	42	10.46922	10.02368	4	9.97632	15
46	.50747	37	.49253	.53120	41	.46880	.52372	5	.97628	14
47	.50784	37	.49216	.53161	41	.46839	.52377	4	.97623	13
48	.50821	37	.49179	.53202	42	.46798	.52381	4	.97619	12
49	.50858	38	.49142	.53244	41	.46756	.52385	5	.97615	11
50	9.50896	37	10.49104	9.53285	42	10.46715	10.02390	4	9.97610	10
51	.50933	37	.49067	.53327	41	.46673	.52394	4	.97606	9
52	.50970	37	.49030	.53368	41	.46632	.52398	5	.97602	8
53	.51007	36	.48993	.53409	41	.46591	.52403	4	.97597	7
54	.51043	37	.48957	.53450	42	.46550	.52407	4	.97593	6
55	9.51080	37	10.48920	9.53492	41	10.46508	10.02411	5	9.97589	5
56	.51117	37	.48883	.53533	41	.46467	.52416	4	.97584	4
57	.51154	37	.48846	.53574	41	.46426	.52420	4	.97580	3
58	.51191	37	.48809	.53615	41	.46385	.52424	4	.97576	2
59	.51227	36	.48773	.53656	41	.46344	.52429	5	.97571	1
60	9.51264	37	10.48736	9.53697	41	10.46303	10.02433	4	9.97567	0
↑	108° →	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	← 71°	
↓	cos								sin	↑

**TABLE 3**  
Common Logarithms of Trigonometric Functions (offset +10)

19° →		Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	← 160°	
↓	sin								cos	↑
0	9.51264	37	10.48736	9.53697	41	10.46303	10.02433	4	9.97567	60
1	.51301	37	.48699	.53738	41	.46262	.52437	4	.97563	59
2	.51338	37	.48662	.53779	41	.46221	.52442	5	.97558	58
3	.51374	36	.48626	.53820	41	.46180	.52446	4	.97554	57
4	.51411	37	.48589	.53861	41	.46139	.52450	4	.97550	56
5	9.51447	36	10.48553	9.53902	41	10.46098	10.02455	4	9.97545	55
6	.51484	37	.48516	.53943	41	.46057	.52459	4	.97541	54
7	.51520	36	.48480	.53984	41	.46016	.52464	5	.97536	53
8	.51557	37	.48443	.54025	41	.45975	.52468	4	.97532	52
9	.51593	36	.48407	.54065	40	.45935	.52472	4	.97528	51
10	9.51629	37	10.48371	9.54106	41	10.45894	10.02477	4	9.97523	50
11	.51666	36	.48334	.54147	41	.45853	.52481	4	.97519	49
12	.51702	36	.48298	.54187	41	.45813	.52485	5	.97515	48
13	.51738	36	.48262	.54228	41	.45772	.52489	4	.97510	47
14	.51774	37	.48226	.54269	41	.45731	.52494	4	.97506	46
15	9.51811	36	10.48189	9.54309	41	10.45691	10.02499	4	9.97501	45
16	.51847	36	.48153	.54350	41	.45650	.52503	4	.97497	44
17	.51883	36	.48117	.54390	40	.45610	.52508	5	.97492	43
18	.51919	36	.48081	.54431	41	.45569	.52512	4	.97488	42
19	.51955	36	.48045	.54471	40	.45529	.52516	4	.97484	41
20	9.51991	36	10.48009	9.54512	40	10.45488	10.02521	4	9.97479	40
21	.52027	36	.47973	.54552	41	.45448	.52525	5	.97475	39
22	.52063	36	.47937	.54593	41	.45407	.52530	4	.97470	38
23	.52099	36	.47901	.54633	40	.45367	.52534	4	.97466	37
24	.52135	36	.47865	.54673	41	.45327	.52539	5	.97461	36
25	9.52171	36	10.47829	9.54714	40	10.45286	10.02543	4	9.97457	35
26	.52207	35	.47793	.54754	40	.45246	.52547	4	.97453	34
27	.52242	36	.47758	.54794	41	.45206	.52552	5	.97448	33
28	.52278	36	.47722	.54835	41	.45165	.52556	4	.97444	32
29	.52314	36	.47686	.54875	40	.45125	.52561	5	.97439	31
30	9.52350	35	10.47650	9.54915	40	10.45085	10.02565	5	9.97435	30
31	.52385	36	.47615	.54955	40	.45045	.52570	4	.97430	29
32	.52421	35	.47579	.54995	40	.45005	.52574	4	.97426	28
33	.52456	36	.47544	.55035	40	.44965	.52579	5	.97421	27
34	.52492	35	.47508	.55075	40	.44925	.52583	4	.97417	26
35	9.52527	36	10.47473	9.55115	40	10.44885	10.02588	4	9.97412	25
36	.52563	35	.47437	.55155	40	.44845	.52592	4	.97408	24
37	.52598	36	.47402	.55195	40	.44805	.52597	5	.97403	23
38	.52634	35	.47366	.55235	40	.44765	.52601	4	.97399	22
39	.52669	36	.47331	.55275	40	.44725	.52606	5	.97394	21
40	9.52705	35	10.47295	9.55315	40	10.44845	10.02610	4	9.97390	20
41	.52740	35	.47260	.55355	40	.44805	.52615	5	.97385	19
42	.52775	36	.47225	.55395	39	.44805	.52619	5	.97381	18
43	.52811	35	.47189	.55434	40	.44805	.52624	4	.97376	17
44	.52846	35	.47154	.55474	40	.44805	.52628	4	.97372	16
45	9.52881	35	10.47119	9.55514	40	10.44886	10.02633	4	9.97367	15
46	.52916	35	.47084	.55554	39	.44846	.52637	5	.97363	14
47	.52951	35	.47049	.55593	40	.44807	.52642	4	.97358	13
48	.52986	35	.47014	.55633	40	.44807	.52647	5	.97353	12
49	.53021	35	.46979	.55673	39	.44807	.52651	4	.97349	11
50	9.53056	36	10.46944	9.55712	40	10.44888	10.02656	4	9.97344	10
51	.53092	34	.46908	.55752	39	.44848	.52660	5	.97340	9
52	.53126	35	.46874	.55791	40	.44809	.52665	4	.97335	8
53	.53161	35	.46839	.55831	39	.44809	.52669	4	.97331	

**TABLE 3**  
Common Logarithms of Trigonometric Functions (offset +10)

20° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 159°	
0	9.53405	35	10.46595	9.56107	39	10.43893	10.02701	5	9.97299	60
1	.53440	35	.46560	.56146	39	.43854	.02706	5	.97294	59
2	.53475	34	.46525	.56185	39	.43815	.02711	4	.97289	58
3	.53509	35	.46491	.56224	39	.43776	.02715	5	.97285	57
4	.53544	34	.46456	.56264	40	.43736	.02720	5	.97280	56
5	9.53578	35	10.46422	9.56303	39	10.43697	10.02724	4	9.97276	55
6	.53613	34	.46387	.56342	39	.43658	.02729	5	.97271	54
7	.53647	35	.46353	.56381	39	.43619	.02734	5	.97266	53
8	.53682	34	.46318	.56420	39	.43580	.02738	4	.97262	52
9	.53716	35	.46284	.56459	39	.43541	.02743	5	.97257	51
10	9.53751	34	10.46249	9.56498	39	10.43502	10.02748	5	9.97252	50
11	.53785	34	.46215	.56537	39	.43463	.02752	4	.97248	49
12	.53819	35	.46181	.56576	39	.43424	.02757	5	.97243	48
13	.53854	34	.46146	.56615	39	.43385	.02762	4	.97238	47
14	.53888	34	.46112	.56654	39	.43346	.02766	5	.97234	46
15	9.53922	35	10.46078	9.56693	39	10.43307	10.02771	5	9.97229	45
16	.53957	34	.46043	.56692	39	.43268	.02776	4	.97224	44
17	.53991	34	.46009	.56731	39	.43229	.02780	4	.97220	43
18	.54025	34	.45975	.56810	39	.43190	.02785	5	.97215	42
19	.54059	34	.45941	.56849	38	.43151	.02790	4	.97210	41
20	9.54093	34	10.45907	9.56887	39	10.43113	10.02794	5	9.97206	40
21	.54127	34	.45873	.56926	39	.43074	.02799	5	.97201	39
22	.54161	34	.45839	.56965	39	.43035	.02804	4	.97196	38
23	.54195	34	.45805	.57004	38	.42996	.02808	5	.97192	37
24	.54229	34	.45771	.57042	39	.42958	.02813	5	.97187	36
25	9.54263	34	10.45737	9.57081	39	10.42919	10.02818	4	9.97182	35
26	.54297	34	.45703	.57120	38	.42880	.02822	5	.97178	34
27	.54331	34	.45669	.57158	39	.42842	.02827	5	.97173	33
28	.54365	34	.45635	.57197	38	.42803	.02832	5	.97168	32
29	.54399	34	.45601	.57235	39	.42765	.02837	5	.97163	31
30	9.54433	33	10.45567	9.57274	38	10.42726	10.02841	4	9.97159	30
31	.54466	34	.45534	.57312	39	.42688	.02846	5	.97154	29
32	.54500	34	.45500	.57351	38	.42649	.02851	5	.97149	28
33	.54534	33	.45466	.57389	38	.42611	.02855	4	.97145	27
34	.54567	34	.45433	.57428	38	.42572	.02860	5	.97140	26
35	9.54601	34	10.45399	9.57466	38	10.42534	10.02865	5	9.97135	25
36	.54635	33	.45365	.57504	39	.42496	.02870	4	.97130	24
37	.54668	34	.45332	.57543	39	.42457	.02874	5	.97126	23
38	.54702	33	.45298	.57581	38	.42419	.02879	5	.97121	22
39	.54735	34	.45265	.57619	39	.42381	.02884	5	.97116	21
40	9.54769	33	10.45231	9.57658	38	10.42342	10.02889	4	9.97111	20
41	.54802	34	.45198	.57696	38	.42304	.02893	5	.97107	19
42	.54836	34	.45164	.57734	38	.42266	.02898	5	.97102	18
43	.54869	33	.45131	.57772	38	.42228	.02903	5	.97097	17
44	.54903	33	.45097	.57810	39	.42190	.02908	5	.97092	16
45	9.54936	33	10.45064	9.57849	38	10.42151	10.02913	4	9.97087	15
46	.54969	34	.45031	.57887	38	.42113	.02917	5	.97083	14
47	.55003	33	.44997	.57925	38	.42075	.02922	5	.97078	13
48	.55036	33	.44964	.57963	38	.42037	.02927	5	.97073	12
49	.55069	33	.44931	.58001	38	.41999	.02932	5	.97068	11
50	9.55102	34	10.44898	9.58039	38	10.41961	10.02937	4	9.97063	10
51	.55136	33	.44864	.58077	38	.41923	.02941	5	.97059	9
52	.55169	33	.44831	.58115	38	.41885	.02946	5	.97054	8
53	.55202	33	.44798	.58153	38	.41847	.02951	5	.97049	7
54	.55235	33	.44765	.58191	38	.41809	.02956	5	.97044	6
55	9.55268	33	10.44732	9.58229	38	10.41771	10.02961	4	9.97039	5
56	.55301	33	.44699	.58267	37	.41733	.02965	5	.97035	4
57	.55334	33	.44666	.58304	38	.41695	.02970	5	.97030	3
58	.55367	33	.44633	.58342	38	.41658	.02975	5	.97025	2
59	.55400	33	.44600	.58380	38	.41620	.02980	5	.97020	1
60	9.55433	33	10.44567	9.58418	38	10.41582	10.02985	5	9.97015	0
↑ 110° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 69°	

**TABLE 3**  
Common Logarithms of Trigonometric Functions (offset +10)

21° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 158°	
0	9.55433	33	10.44567	9.58418	37	10.41582	10.02985	5	9.97015	60
1	.55466	33	.44534	.58455	38	.41545	.02990	5	.97010	59
2	.55499	33	.44501	.58493	38	.41507	.02995	5	.97005	58
3	.55532	32	.44468	.58531	38	.41469	.02999	4	.97001	57
4	.55564	33	.44436	.58569	38	.41431	.03004	5	.96996	56
5	9.55597	33	10.44403	9.58606	37	10.41394	10.03009	5	9.96991	55
6	.55630	33	.44370	.58644	38	.41356	.03014	5	.96986	54
7	.55663	33	.44337	.58681	37	.41319	.03019	5	.96981	53
8	.55695	32	.44305	.58719	38	.41281	.03024	5	.96976	52
9	.55728	33	.44272	.58757	38	.41243	.03029	5	.96971	51
10	9.55761	32	10.44239	9.58794	37	10.41206	10.03034	5	9.96966	50
11	.55793	33	.44207	.58832	38	.41168	.03038	4	.96962	49
12	.55826	32	.44174	.58869	37	.41131	.03043	5	.96957	48
13	.55858	33	.44142	.58907	38	.41093	.03048	5	.96952	47
14	.55891	32	.44109	.58944	37	.41056	.03053	5	.96947	46
15	9.55923	33	10.44077	9.58981	37	10.41019	10.03058	5	9.96942	45
16	.55956	32	.44044	.59019	38	.40981	.03063	5	.96937	44
17	.55988	33	.44012	.59056	37	.40944	.03068	5	.96932	43
18	.56021	32	.43979	.59094	38	.40906	.03073	5	.96927	42
19	.56053	33	.43947	.59131	37	.40869	.03078	5	.96922	41
20	9.56085	32	10.43915	9.59168	37	10.40832	10.03083	5	9.96917	40
21	.56118	32	.43882	.59205	38	.40795	.03088	5	.96912	39
22	.56150	32	.43850	.59243	38	.40757	.03093	5	.96907	38
23	.56182	32	.43818	.59280	37	.40720	.03097	4	.96903	37
24	.56215	32	.43785	.59317	37	.40683	.03102	5	.96898	36
25	9.56247	32	10.43753	9.59354	37	10.40646	10.03107	5	9.96893	35
26	.56279	32	.43721	.59391	38	.40609	.03112	5	.96888	34
27	.56311	32	.43689	.59429	38	.40571	.03117	5	.96883	33
28	.56343	32	.43657	.59466	37	.40534	.03122	5	.96878	32
29	.56375	32	.43625	.59503	37	.40497	.03127	5	.96873	31
30	9.56408	33	10.43592	9.59540	37	10.40460	10.03132	5	9.96868	30
31	.56440	32	.43560	.59577	37	.40423	.03137	5	.96863	29
32	.56472	32	.43528	.59614	37	.40386	.03142	5	.96858	28
33	.56504	32	.43496	.59651	37	.40349	.03147	5	.96853	27
34	.56536	32	.43464	.59688	37	.40312	.03152	5	.96848	26
35	9.56568	31	10.43432	9.59725	37	10.404275	10.03157	5	9.96843	25
36	.56599	32	.43401	.59762	37	.40389	.03162	5	.96838	24
37	.56631	32	.43369	.59799	37	.40351	.03167	5	.96833	23
38	.56663	32	.43337	.59836	36	.40313	.03172	5	.96828	22
39	.56695	32	.43305	.59872	37	.40275	.03177	5	.96823	21
40	9.56727	32	10.43273	9.59909	37	10.404091	10.03182	5	9.96818	20
41	.56759	31	.43241	.59946	37	.40371	.03187	5	.96813	19
42	.56791	32	.43210	.59983	37	.40333	.03192	5	.96808	18
43	.56823	32	.43178	.60020	36	.40295	.03197	5	.96803	17
44	.56855	32	.43146	.60056	37	.40257	.03202	5	.96798	16
45	9.56886	31	10.43114	9.60093	37	10.403907	10.03207	5	9.96793	15
46	.56917	32	.43083	.60130	36	.40352	.03212	5	.96788	14
47	.56949	31	.43051	.60166	37	.40314	.03217	5	.96783	13
48	.56980	32	.43020	.60202	37	.40276	.03222	6	.96778	12
49	.57012	32	.42988	.60238	37	.40238	.03227	5	.96773	11
50	9.57044	31	10.42956	9.60276	37	10.403724	10.03233	5	9.96767	10
51	.57075	32	.42925	.60313	36	.40299	.03238	5	.96762	9
52	.57107	31	.42893	.60349	37	.40261	.03243	5	.96757	8
53	.57138	31	.42862	.60386	36	.40223	.03248	5	.96752	7
54	.57169	32	.42831	.60422	37	.40185	.03253	5	.96747	6
55	9.5									

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
22° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 157°	
0	9.57358	31	10.42642	9.60641	36	10.39359	10.03283	6	9.96717	60
1	.57389	31	.42611	.60677	37	.39323	.03289	5	.96711	59
2	.57420	31	.42580	.60714	36	.39286	.03294	5	.96706	58
3	.57451	31	.42549	.60750	36	.39250	.03299	5	.96701	57
4	.57482	31	.42518	.60786	37	.39214	.03304	5	.96696	56
5	9.57514	31	10.42486	9.60823	36	10.39177	10.03309	5	9.96691	55
6	.57545	31	.42455	.60859	36	.39141	.03314	5	.96686	54
7	.57576	31	.42424	.60895	36	.39105	.03319	5	.96681	53
8	.57607	31	.42393	.60931	36	.39069	.03324	5	.96676	52
9	.57638	31	.42362	.60967	37	.39033	.03330	6	.96670	51
10	9.57669	31	10.42331	9.61004	36	10.38996	10.03335	5	9.96665	50
11	.57700	31	.42300	.61040	36	.38960	.03340	5	.96660	49
12	.57731	31	.42269	.61076	36	.38924	.03345	5	.96655	48
13	.57762	31	.42238	.61112	36	.38888	.03350	5	.96650	47
14	.57793	31	.42207	.61148	36	.38852	.03355	5	.96645	46
15	9.57824	31	10.42176	9.61184	36	10.38816	10.03360	6	9.96640	45
16	.57855	30	.42145	.61220	36	.38780	.03366	5	.96634	44
17	.57885	31	.42115	.61256	36	.38744	.03371	5	.96629	43
18	.57916	31	.42084	.61292	36	.38708	.03376	5	.96624	42
19	.57947	31	.42053	.61328	36	.38672	.03381	5	.96619	41
20	9.57978	30	10.42022	9.61364	36	10.38636	10.03386	6	9.96614	40
21	.58008	31	.41992	.61400	36	.38600	.03392	5	.96608	39
22	.58039	31	.41961	.61436	36	.38564	.03397	5	.96603	38
23	.58070	31	.41930	.61472	36	.38528	.03402	5	.96598	37
24	.58101	30	.41899	.61508	36	.38492	.03407	5	.96593	36
25	9.58131	31	10.41869	9.61544	35	10.38456	10.03412	6	9.96588	35
26	.58162	30	.41838	.61579	36	.38421	.03418	5	.96583	34
27	.58192	31	.41808	.61615	36	.38385	.03423	5	.96577	33
28	.58223	30	.41777	.61651	36	.38349	.03428	5	.96572	32
29	.58253	31	.41747	.61687	35	.38313	.03433	5	.96567	31
30	9.58284	30	10.41716	9.61722	36	10.38278	10.03438	6	9.96562	30
31	.58314	31	.41686	.61758	36	.38242	.03444	5	.96556	29
32	.58345	30	.41655	.61794	36	.38206	.03449	5	.96551	28
33	.58375	31	.41625	.61830	36	.38170	.03454	5	.96546	27
34	.58406	30	.41594	.61865	35	.38135	.03459	6	.96541	26
35	9.58436	31	10.41564	9.61901	35	10.38099	10.03465	5	9.96535	25
36	.58467	30	.41533	.61936	36	.38064	.03470	5	.96530	24
37	.58497	30	.41503	.61972	36	.38028	.03475	5	.96525	23
38	.58527	30	.41473	.62008	36	.37992	.03480	5	.96520	22
39	.58557	31	.41443	.62043	35	.37957	.03486	6	.96514	21
40	9.58588	30	10.41412	9.62079	35	10.37921	10.03491	5	9.96509	20
41	.58618	30	.41382	.62114	36	.37886	.03496	6	.96504	19
42	.58648	30	.41352	.62150	35	.37850	.03502	5	.96498	18
43	.58678	31	.41322	.62185	36	.37815	.03507	5	.96493	17
44	.58709	30	.41291	.62221	35	.37779	.03512	5	.96488	16
45	9.58739	30	10.41261	9.62256	36	10.37744	10.03517	6	9.96483	15
46	.58769	30	.41231	.62292	35	.37708	.03523	5	.96477	14
47	.58799	30	.41201	.62327	35	.37673	.03528	5	.96472	13
48	.58829	30	.41171	.62362	36	.37638	.03533	5	.96467	12
49	.58859	30	.41141	.62398	35	.37602	.03539	5	.96461	11
50	9.58889	30	10.41111	9.62433	35	10.37567	10.03544	5	9.96456	10
51	.58919	30	.41081	.62468	36	.37532	.03549	6	.96451	9
52	.58949	30	.41051	.62504	35	.37496	.03555	5	.96445	8
53	.58979	30	.41021	.62539	35	.37461	.03560	5	.96440	7
54	.59009	30	.40991	.62574	35	.37426	.03565	6	.96435	6
55	9.59039	29	10.40961	9.62609	36	10.37391	10.03571	5	9.96429	5
56	.59069	29	.40931	.62645	35	.37355	.03576	5	.96424	4
57	.59098	30	.40902	.62680	35	.37320	.03581	6	.96419	3
58	.59128	30	.40872	.62715	35	.37285	.03587	6	.96413	2
59	.59158	30	.40842	.62750	35	.37250	.03592	5	.96408	1
60	9.59188	30	10.40812	9.62785	35	10.37215	10.03597	5	9.96403	0
↑	112° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 67°

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
23° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 156°	
0	9.59188	30	10.40812	9.62785	35	10.37215	10.03597	6	9.96403	60
1	.59218	29	.40782	.62811	35	.37180	.03603	5	.96397	59
2	.59247	29	.40753	.62837	35	.37145	.03608	5	.96392	58
3	.59277	30	.40723	.62863	35	.37110	.03613	5	.96387	57
4	.59307	29	.40693	.62889	36	.37074	.03619	6	.96381	56
5	9.59336	30	10.40664	9.62916	35	10.37039	10.03624	6	9.96376	55
6	.59366	30	.40634	.62942	35	.37004	.03630	6	.96370	54
7	.59396	30	.40604	.62968	35	.36969	.03635	5	.96365	53
8	.59425	29	.40575	.62994	35	.36934	.03640	5	.96360	52
9	.59455	30	.40545	.63020	35	.36899	.03646	6	.96354	51
10	9.59484	30	10.40516	9.63135	35	10.36865	10.03651	6	9.96349	50
11	.59514	29	.40486	.63161	35	.36830	.03657	5	.96343	49
12	.59543	30	.40457	.63187	35	.36795	.03662	5	.96338	48
13	.59573	29	.40427	.63213	35	.36760	.03667	5	.96333	47
14	.59602	30	.40398	.63239	35	.36725	.03673	6	.96327	46
15	9.59632	29	10.40368	9.63310	35	10.36690	10.03678	6	9.96322	45
16	.59661	29	.40339	.63336	35	.36655	.03684	6	.96316	44
17	.59690	30	.40310	.63362	34	.36621	.03689	5	.96311	43
18	.59720	29	.40280	.63388	35	.36586	.03695	5	.96305	42
19	.59749	29	.40251	.63414	35	.36551	.03700	5	.96300	41
20	9.59778	30	10.40222	9.63484	35	10.36516	10.03705	5	9.96294	40
21	.59808	29	.40192	.63510	34	.36481	.03711	5	.96289	39
22	.59837	29	.40163	.63536	35	.36447	.03716	5	.96284	38
23	.59866	29	.40134	.63562	35	.36412	.03722	5	.96278	37
24	.59895	29	.40105	.63588	34	.36377	.03727	6	.96273	36
25	9.59924	30	10.40076	9.63657	35	10.36343	10.03733	5	9.96267	35
26	.59954	29	.40046	.63683	34	.36308	.03738	6	.96262	34
27	.59983	29	.40017	.63709	35	.36274	.03744	5	.96256	33
28	.60012	29	.39988	.63735	35	.36239	.03749	6	.96251	32
29	.60041	29	.39959	.63761	35	.36204	.03755	5	.96245	31
30	9.60070	29	10.39930	9.63830	35	10.36310	10.03760	6	9.96240	30
31	.60099	29	.39901	.63856	34	.36175	.03766	5	.96234	29
32	.60128	29	.39872	.63882	35	.36140	.03771	6	.96229	28
33	.60157	29	.39843	.63908	35	.36106	.03777	5	.96223	27
34	.60186	29	.39814	.63934	35	.36072	.03782	5	.96218	26
35	9.60215	29	10.39785	9.64003	35	10.35997	10.03788	5	9.96212	25
36	.60244	29	.39756	.64029	34	.35963	.03793	6	.96207	24
37	.60273	29	.39727	.64055	34	.35928	.03799	5	.96201	23
38	.60302	29	.39698	.64081	34	.35894	.03804	6	.96196	22
39	.60331	28	.39669	.64107	35	.35860	.03810	5	.96190	21
40	9.60359	29	10.39641	9.64175	34	10.35825	10.03815	6	9.96185	20
41	.60388	29	.39612	.64201	34	.35791	.03821	5	.96179	19
42	.60417	29	.39583	.64227	35	.35757	.03826	6	.96174	18
43	.60446	28	.39554	.64253	34	.35722	.03832	6	.96168	17
44	.60474	29	.39526	.64279	34	.35688	.03838	5	.96162	16
45	9.60503	29	10.39497	9.64346	35	10.35654	10.03843	6	9.96157	15
46	.60532	29	.39468	.64371	35	.35619	.03849	5	.96151	14
47	.60561	28	.39439	.64397	34	.35585	.03854	6	.96146	13
48	.60589	29	.39411	.64423	34	.35551	.03860	6	.96140	12
49	.60618	28	.39382	.64449	34	.35517	.03865	5	.96135	11
50	9.60646	29	10.39354	9.64517	35	10.35483	10.03870	6	9.96129	10
51	.60675	29	.39325	.64543	35	.35448	.03877	5	.96123	9
52	.60704	28	.39296	.64569	34	.35414	.03882	6	.96118	8
53	.60732	29	.39268	.64595	34	.35380	.03888	5	.96112	7
54	.60761	29	.39239	.64621	34	.35346	.03893	6	.96107	6
55	9.60789	28	10.39211	9.64688	34	10.35312	10.03898	6	9.96101</	

**TABLE 3**  
Common Logarithms of Trigonometric Functions (offset +10)

24° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 155°	
0	9.60931	29	10.39069	9.64858	34	10.35142	10.03927	6	9.96073	60
1	.60960	28	.39040	.64892	34	.35108	.03933	5	.96067	59
2	.60988	28	.39012	.64926	34	.35074	.03938	5	.96062	58
3	.61016	29	.38984	.64960	34	.35040	.03944	6	.96056	57
4	.61045	28	.38955	.64994	34	.35006	.03950	6	.96050	56
5	9.61073	28	10.38927	9.65028	34	10.34972	10.03955	5	9.96045	55
6	.61101	28	.38899	.65062	34	.34938	.03961	5	.96039	54
7	.61129	29	.38871	.65096	34	.34904	.03966	5	.96034	53
8	.61158	28	.38842	.65130	34	.34870	.03972	6	.96028	52
9	.61186	28	.38814	.65164	33	.34836	.03978	5	.96022	51
10	9.61214	28	10.38786	9.65197	34	10.34803	10.03983	5	9.96017	50
11	.61242	28	.38758	.65231	34	.34769	.03989	6	.96011	49
12	.61270	28	.38730	.65265	34	.34735	.03995	6	.96005	48
13	.61298	28	.38702	.65299	34	.34701	.04000	5	.96000	47
14	.61326	28	.38674	.65333	33	.34667	.04006	6	.95994	46
15	9.61354	28	10.38646	9.65366	34	10.34634	10.04012	6	9.95988	45
16	.61382	29	.38618	.65400	34	.34600	.04018	5	.95982	44
17	.61411	27	.38589	.65434	34	.34566	.04023	5	.95977	43
18	.61438	28	.38562	.65467	33	.34533	.04029	6	.95971	42
19	.61466	28	.38534	.65501	34	.34499	.04035	6	.95965	41
20	9.61494	28	10.38506	9.65535	33	10.34463	10.04040	5	9.95960	40
21	.61522	28	.38478	.65568	34	.34432	.04046	6	.95954	39
22	.61550	28	.38450	.65602	34	.34398	.04052	6	.95948	38
23	.61578	28	.38422	.65636	34	.34364	.04058	5	.95942	37
24	.61606	28	.38394	.65669	33	.34331	.04063	5	.95937	36
25	9.61634	28	10.38366	9.65703	33	10.34297	10.04069	6	9.95931	35
26	.61662	27	.38338	.65736	34	.34264	.04075	5	.95925	34
27	.61689	28	.38311	.65770	34	.34230	.04080	5	.95920	33
28	.61717	28	.38283	.65803	33	.34197	.04086	6	.95914	32
29	.61745	28	.38255	.65837	34	.34163	.04092	6	.95908	31
30	9.61773	27	10.38227	9.65870	34	10.34130	10.04098	5	9.95902	30
31	.61800	28	.38200	.65904	33	.34096	.04103	6	.95897	29
32	.61828	28	.38172	.65937	34	.34063	.04109	6	.95891	28
33	.61856	27	.38144	.65971	33	.34029	.04115	6	.95885	27
34	.61883	28	.38117	.66004	33	.33996	.04121	6	.95879	26
35	9.61911	28	10.38089	9.66038	33	10.33962	10.04127	5	9.95873	25
36	.61939	27	.38061	.66071	33	.33929	.04132	6	.95868	24
37	.61966	28	.38034	.66104	34	.33896	.04138	6	.95862	23
38	.61994	27	.38006	.66138	33	.33862	.04144	6	.95856	22
39	.62021	28	.37979	.66171	33	.33829	.04150	6	.95850	21
40	9.62049	27	10.37951	9.66204	34	10.33796	10.04156	5	9.95844	20
41	.62076	28	.37924	.66238	33	.33762	.04161	6	.95839	19
42	.62104	27	.37896	.66271	33	.33729	.04167	6	.95833	18
43	.62131	28	.37869	.66304	33	.33696	.04173	6	.95827	17
44	.62159	27	.37841	.66337	34	.33663	.04179	6	.95821	16
45	9.62186	28	10.37814	9.66371	33	10.33629	10.04185	5	9.95815	15
46	.62214	27	.37786	.66404	33	.33596	.04190	6	.95810	14
47	.62241	27	.37759	.66437	33	.33563	.04196	6	.95804	13
48	.62268	28	.37732	.66470	33	.33530	.04202	6	.95798	12
49	.62296	27	.37704	.66503	34	.33497	.04208	6	.95792	11
50	9.62323	27	10.37677	9.66537	33	10.33463	10.04214	6	9.95786	10
51	.62350	27	.37650	.66570	33	.33430	.04220	5	.95780	9
52	.62377	28	.37623	.66603	33	.33397	.04225	6	.95775	8
53	.62405	27	.37595	.66636	33	.33364	.04231	6	.95769	7
54	.62432	27	.37568	.66669	33	.33331	.04237	6	.95763	6
55	9.62459	27	10.37541	9.66702	33	10.33298	10.04243	6	9.95757	5
56	.62486	27	.37514	.66735	33	.33265	.04249	6	.95751	4
57	.62513	28	.37487	.66768	33	.33232	.04255	6	.95745	3
58	.62541	27	.37459	.66801	33	.33199	.04261	6	.95739	2
59	.62568	27	.37432	.66834	33	.33166	.04267	6	.95733	1
60	9.62595	27	10.37405	9.66867	33	10.33133	10.04272	5	9.95728	0
↑ 114° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 65°	

**TABLE 3**  
Common Logarithms of Trigonometric Functions (offset +10)

25° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 154°	
0	9.62595	27	10.37405	9.66867	33	10.33133	10.04272	6	9.95728	60
1	.62622	27	.37378	.66900	33	.33100	.04278	6	.95722	59
2	.62649	27	.37351	.66933	33	.33067	.04284	6	.95716	58
3	.62676	27	.37324	.66966	33	.33034	.04290	6	.95710	57
4	.62703	27	.37297	.66999	33	.33001	.04296	6	.95704	56
5	9.62730	27	10.37270	9.67032	33	10.32968	10.04302	6	9.95698	55
6	.62757	27	.37243	.67065	33	.32935	.04308	6	.95692	54
7	.62784	27	.37216	.67098	33	.32902	.04314	6	.95686	53
8	.62811	27	.37189	.67131	33	.32869	.04320	6	.95680	52
9	.62838	27	.37162	.67163	33	.32837	.04326	6	.95674	51
10	9.62865	27	10.37135	9.67196	33	10.32804	10.04332	5	9.95668	50
11	.62892	26	.37108	.67229	33	.32771	.04337	6	.95663	49
12	.62918	26	.37081	.67262	33	.32738	.04343	6	.95657	48
13	.62945	27	.37055	.67295	33	.32705	.04349	6	.95651	47
14	.62972	27	.37028	.67327	33	.32673	.04355	6	.95645	46
15	9.62999	27	10.37001	9.67360	33	10.32640	10.04361	6	9.95639	45
16	.63026	26	.36974	.67393	33	.32607	.04367	6	.95633	44
17	.63052	26	.36948	.67426	32	.32574	.04373	6	.95627	43
18	.63079	27	.36921	.67458	32	.32542	.04379	6	.95621	42
19	.63106	26	.36894	.67491	33	.32509	.04385	6	.95615	41
20	9.63133	27	10.36867	9.67524	32	10.32476	10.04391	6	9.95609	40
21	.63159	27	.36841	.67556	33	.32444	.04397	6	.95603	39
22	.63186	27	.36814	.67589	33	.32411	.04403	6	.95597	38
23	.63213	26	.36787	.67622	33	.32378	.04409	6	.95591	37
24	.63239	27	.36761	.67654	32	.32346	.04415	6	.95585	36
25	9.63266	26	10.36734	9.67687	33	10.32313	10.04421	6	9.95579	35
26	.63292	27	.36708	.67719	33	.32281	.04427	6	.95573	34
27	.63319	27	.36681	.67752	33	.32248	.04433	6	.95567	33
28	.63345	26	.36655	.67785	33	.32215	.04439	6	.95561	32
29	.63372	27	.36628	.67817	32	.32183	.04445	6	.95555	31
30	9.63398	26	10.36602	9.67850	32	10.32150	10.04451	6	9.95549	30
31	.63425	26	.36575	.67882	33	.32118	.04457	6	.95543	29
32	.63451	26	.36549	.67915	32	.32085	.04463	6	.95537	28
33	.63478	26	.36522	.67947	33	.32053	.04469	6	.95531	27
34	.63504	27	.36496	.67980	32	.32020	.04475	6	.95525	26
35	9.63531	26	10.36469	9.68012	32	10.31988	10.04481	6	9.95519	25
36	.63557	26	.36443	.68044	33	.31956	.04487	6	.95513	24
37	.63583	27	.36417	.68077	32	.31923	.04493	6	.95507	23
38	.63610	26	.36390	.68109	33	.31891	.04500	7	.95500	22
39	.63636	26	.36364	.68142	32	.31858	.04506	6	.95494	21
40	9.63662	27	10.36338	9.68174	32	10.31826	10.04512	6	9.95488	20
41	.63689	26	.36311	.68206	33	.31794	.04518	6	.95482	19
42	.63715	26	.36285	.68239	32	.31761	.04524	6	.95476	18
43	.63741	26	.36259	.68271	32	.31729	.04530	6	.95470	17
44	.63767	27	.36233	.68303	33	.31697	.04536	6	.95464	16
45	9.63794	26	10.36206	9.68336	32	10.31664	10.04542	6	9.95458	15
46	.63820	26	.36180	.68368	32	.31632	.04548	6	.95452	14
47	.63846	26	.36154	.68400	32	.31600	.04554	6	.95446	13
48	.63872	26	.36128	.68432	33	.31568	.04560	6	.95440	12
49	.63898	26	.36102	.68465	32	.31535	.04566	6	.95434	11
50	9.63924	26	10.36076	9.68497	32	10.31503	10.04573	6	9.95427	10
51	.63950	26	.36050	.68529	32	.31471	.04579	6	.95421	9
52	.63976	26	.36024	.68561	32	.31439	.04585	6	.95415	8
53	.64002	26	.35998	.68593	33	.31407	.04591	6	.95409	7
54	.64028	26	.35972	.68626	32	.31374	.04597	6	.95403	6
55	9.64054									

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
26° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 153°	
0	9.64184	26	10.35816	9.68818	32	10.31182	10.04634	6	9.95366	60
1	.64210	26	.35790	.68850	32	.31150	.04640	6	.95360	59
2	.64236	26	.35764	.68882	32	.31118	.04646	6	.95354	58
3	.64262	26	.35738	.68914	32	.31086	.04652	6	.95348	57
4	.64288	26	.35712	.68946	32	.31054	.04659	7	.95341	56
5	9.64313	26	10.35687	9.68978	32	10.31022	10.04665	6	9.95335	55
6	.64339	26	.35661	.69010	32	.30990	.04671	6	.95329	54
7	.64365	26	.35635	.69042	32	.30958	.04677	6	.95323	53
8	.64391	26	.35609	.69074	32	.30926	.04683	6	.95317	52
9	.64417	25	.35583	.69106	32	.30894	.04690	7	.95310	51
10	9.64442	26	10.35558	9.69138	32	10.30862	10.04696	6	9.95304	50
11	.64468	26	.35532	.69170	32	.30830	.04702	6	.95298	49
12	.64494	25	.35506	.69202	32	.30798	.04708	6	.95292	48
13	.64519	26	.35480	.69234	32	.30766	.04714	6	.95286	47
14	.64545	26	.35455	.69266	32	.30734	.04721	7	.95279	46
15	9.64571	25	10.35429	9.69298	31	10.30702	10.04727	6	9.95273	45
16	.64596	26	.35404	.69329	32	.30671	.04733	6	.95267	44
17	.64622	25	.35378	.69361	32	.30639	.04739	7	.95261	43
18	.64647	26	.35353	.69393	32	.30607	.04746	6	.95254	42
19	.64673	25	.35327	.69425	32	.30575	.04752	6	.95248	41
20	9.64698	26	10.35302	9.69457	31	10.30543	10.04758	6	9.95242	40
21	.64724	26	.35276	.69488	32	.30512	.04764	7	.95236	39
22	.64749	25	.35251	.69520	32	.30480	.04771	6	.95229	38
23	.64775	25	.35225	.69552	32	.30448	.04777	6	.95223	37
24	.64800	26	.35200	.69584	31	.30416	.04783	6	.95217	36
25	9.64826	25	10.35174	9.69615	32	10.30385	10.04789	7	9.95211	35
26	.64851	26	.35149	.69647	32	.30353	.04796	6	.95204	34
27	.64877	25	.35123	.69679	32	.30321	.04802	6	.95198	33
28	.64902	25	.35098	.69710	31	.30290	.04808	6	.95192	32
29	.64927	26	.35073	.69742	32	.30258	.04815	7	.95185	31
30	9.64953	25	10.35047	9.69774	31	10.30226	10.04821	6	9.95179	30
31	.64978	25	.35022	.69805	32	.30195	.04827	6	.95173	29
32	.65003	26	.34997	.69837	32	.30163	.04833	6	.95167	28
33	.65029	26	.34971	.69868	31	.30132	.04840	7	.95160	27
34	.65054	25	.34946	.69900	32	.30100	.04846	6	.95154	26
35	9.65079	25	10.34921	9.69932	31	10.30068	10.04852	7	9.95148	25
36	.65104	26	.34896	.69963	32	.30037	.04859	6	.95141	24
37	.65130	26	.34870	.69995	32	.30005	.04865	6	.95135	23
38	.65155	25	.34845	.70026	31	.29974	.04871	6	.95129	22
39	.65180	25	.34820	.70058	31	.29942	.04878	7	.95122	21
40	9.65205	25	10.34795	9.70089	32	10.29911	10.04884	6	9.95116	20
41	.65230	25	.34770	.70121	32	.29879	.04890	6	.95110	19
42	.65255	26	.34745	.70152	32	.29848	.04897	6	.95103	18
43	.65281	26	.34719	.70184	32	.29816	.04903	6	.95097	17
44	.65306	25	.34694	.70215	31	.29785	.04910	7	.95090	16
45	9.65331	25	10.34669	9.70247	31	10.29753	10.04916	6	9.95084	15
46	.65356	25	.34644	.70278	31	.29722	.04922	7	.95078	14
47	.65381	25	.34619	.70309	32	.29691	.04929	6	.95071	13
48	.65406	25	.34594	.70341	32	.29660	.04935	6	.95065	12
49	.65431	25	.34569	.70372	32	.29628	.04941	7	.95059	11
50	9.65456	25	10.34544	9.70404	31	10.29596	10.04948	6	9.95052	10
51	.65481	25	.34519	.70435	31	.29565	.04954	6	.95046	9
52	.65506	25	.34494	.70466	32	.29534	.04961	6	.95039	8
53	.65531	25	.34469	.70498	32	.29502	.04967	6	.95033	7
54	.65556	24	.34444	.70529	31	.29471	.04973	7	.95027	6
55	9.65580	25	10.34420	9.70560	32	10.29440	10.04980	6	9.95020	5
56	.65605	25	.34395	.70592	32	.29408	.04986	6	.95014	4
57	.65630	25	.34370	.70623	31	.29377	.04993	6	.95007	3
58	.65655	25	.34345	.70654	31	.29346	.04999	6	.95001	2
59	.65680	25	.34320	.70685	31	.29315	.05005	6	.94995	1
60	9.65705	25	10.34295	9.70717	32	10.29283	10.05012	7	9.94988	0
↑	116° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 63°

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
27° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 152°	
0	9.65705	24	10.34295	9.70717	31	10.29283	10.05012	6	9.94988	60
1	.65729	24	.34271	.70748	31	.29252	.05018	6	.94982	59
2	.65754	25	.34246	.70779	31	.29221	.05025	6	.94975	58
3	.65779	25	.34221	.70810	31	.29190	.05031	6	.94969	57
4	.65804	25	.34196	.70841	31	.29159	.05038	7	.94962	56
5	9.65828	25	10.34172	9.70873	31	10.29127	10.05044	7	9.94956	55
6	.65853	25	.34147	.70904	31	.29096	.05051	7	.94949	54
7	.65878	25	.34122	.70935	31	.29065	.05057	6	.94943	53
8	.65902	24	.34098	.70966	31	.29034	.05064	6	.94936	52
9	.65927	25	.34073	.70997	31	.29003	.05070	7	.94930	51
10	9.65952	24	10.34048	9.71028	31	10.28972	10.05077	6	9.94923	50
11	.65976	25	.34024	.71059	31	.28941	.05083	6	.94917	49
12	.66001	25	.33999	.71090	31	.28910	.05089	6	.94911	48
13	.66025	24	.33975	.71121	31	.28879	.05096	7	.94904	47
14	.66050	25	.33950	.71153	31	.28847	.05102	6	.94898	46
15	9.66075	24	10.33925	9.71184	31	10.28816	10.05109	6	9.94891	45
16	.66099	25	.33901	.71215	31	.28785	.05115	7	.94885	44
17	.66124	25	.33876	.71246	31	.28754	.05122	7	.94878	43
18	.66148	24	.33852	.71277	31	.28723	.05129	7	.94871	42
19	.66173	24	.33827	.71308	31	.28692	.05135	6	.94865	41
20	9.66197	24	10.33803	9.71339	31	10.28661	10.05142	6	9.94858	40
21	.66221	25	.33779	.71370	31	.28630	.05148	7	.94852	39
22	.66246	25	.33754	.71401	30	.28599	.05155	6	.94845	38
23	.66270	24	.33730	.71431	31	.28568	.05161	6	.94839	37
24	.66295	25	.33705	.71462	31	.28538	.05168	7	.94832	36
25	9.66319	24	10.33681	9.71493	31	10.28507	10.05174	6	9.94826	35
26	.66343	25	.33657	.71524	31	.28476	.05181	7	.94819	34
27	.66368	25	.33632	.71555	31	.28445	.05187	6	.94813	33
28	.66392	24	.33608	.71586	31	.28414	.05194	7	.94806	32
29	.66416	25	.33584	.71617	31	.28383	.05201	6	.94799	31
30	9.66441	24	10.33559	9.71648	31	10.28352	10.05207	7	9.94793	30
31	.66465	25	.33535	.71679	31	.28321	.05214	7	.94786	29
32	.66489	24	.33511	.71709	30	.28291	.05220	6	.94780	28
33	.66513	24	.33487	.71740	31	.28260	.05227	7	.94773	27
34	.66537	25	.33463	.71771	31	.28229	.05233	6	.94767	26
35	9.66562	24	10.33438	9.71802	31	10.28198	10.05240	7	9.94760	25
36	.66586	24	.33414	.71833	30	.28167	.05247	7	.94753	24
37	.66610	24	.33390	.71863	31	.28137	.05253	6	.94747	23
38	.66634	24	.33366	.71894	31	.28106	.05260	6	.94740	22
39	.66658	24	.33342	.71925	30	.28075	.05266	7	.94734	21
40	9.66682	25	10.33318	9.71955	31	10.28045	10.05273	6	9.94727	20
41	.66706	25	.33294	.71986	31	.28014	.05280	6	.94720	19
42	.66731	24	.33269	.72017	31	.27983	.05286	7	.94714	18
43	.66755	24	.33245	.72048	30	.27952	.05293	7	.94707	17
44	.66779	24	.33221	.72078	31	.27922	.05300	6	.94700	16
45	9.66803	24	10.33197	9.72109	31	10.27891	10.05306	7	9.94694	15
46	.66827	24	.33173	.72140	30	.27860	.05313	7	.94687	14
47	.66851	24	.33149	.72170	31	.27830	.05320	6	.94680	13
48	.66875	24	.33125	.72201	30	.27799	.05326	7	.94674	12
49	.66899	23	.33101	.72231	31	.27769	.05333	7	.94667	11
50	9.66922	24	10.33078	9.72262	31	10.27738	10.05340	6	9.94660	10
51	.66946	24	.33054	.72293	30	.27707	.05346	6	.94654	9
52	.66970	24	.33030	.72323	31	.27677	.05353	7	.94647	8
53	.66994	24	.33006	.72354	30	.27646	.05360	6	.94640	7
54	.67018	24	.32982	.72384	31	.27616	.05366	7	.94634	6
55	9.67042	24	10.32958	9.72415	31	10.27585	10.05373	7	9.94627</	

TABLE 3  
Common Logarithms of Trigonometric Functions (offset +10)

28° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 151°	
0	9.67161	24	10.32839	9.72567	31	10.27433	10.05407	6	9.94593	60
1	.67185	23	.32815	.72598	30	.27402	.05413	7	.94587	59
2	.67208	23	.32792	.72628	30	.27372	.05420	7	.94580	58
3	.67232	24	.32768	.72659	31	.27341	.05427	7	.94573	57
4	.67256	24	.32744	.72689	31	.27311	.05433	6	.94567	56
5	9.67280	23	10.32720	9.72720	30	10.27280	10.05440	7	9.94560	55
6	.67303	24	.32697	.72750	30	.27250	.05447	7	.94553	54
7	.67327	23	.32673	.72780	30	.27220	.05454	7	.94546	53
8	.67350	24	.32650	.72811	31	.27189	.05460	6	.94540	52
9	.67374	24	.32626	.72841	31	.27159	.05467	7	.94533	51
10	9.67398	23	10.32602	9.72872	30	10.27128	10.05474	7	9.94526	50
11	.67421	24	.32579	.72902	30	.27098	.05481	6	.94519	49
12	.67445	23	.32555	.72932	30	.27068	.05487	7	.94513	48
13	.67468	24	.32532	.72963	31	.27037	.05494	7	.94506	47
14	.67492	23	.32508	.72993	30	.27007	.05501	7	.94499	46
15	9.67515	24	10.32485	9.73023	31	10.26977	10.05511	7	9.94492	45
16	.67539	23	.32461	.73054	30	.26946	.05515	6	.94485	44
17	.67562	24	.32438	.73084	30	.26916	.05521	7	.94479	43
18	.67586	23	.32414	.73114	30	.26886	.05528	7	.94472	42
19	.67609	24	.32391	.73144	31	.26856	.05535	7	.94465	41
20	9.67633	23	10.32367	9.73175	30	10.26825	10.05542	7	9.94458	40
21	.67656	24	.32344	.73205	30	.26795	.05549	6	.94451	39
22	.67680	23	.32320	.73235	30	.26765	.05555	7	.94445	38
23	.67703	23	.32297	.73265	30	.26735	.05562	7	.94438	37
24	.67726	24	.32274	.73295	31	.26705	.05569	7	.94431	36
25	9.67750	23	10.32250	9.73326	30	10.26674	10.05576	7	9.94424	35
26	.67773	23	.32227	.73356	30	.26644	.05583	6	.94417	34
27	.67796	24	.32204	.73386	30	.26614	.05590	7	.94410	33
28	.67820	23	.32180	.73416	30	.26584	.05596	6	.94404	32
29	.67843	23	.32157	.73446	30	.26554	.05603	7	.94397	31
30	9.67866	24	10.32134	9.73476	31	10.26524	10.05610	7	9.94390	30
31	.67890	23	.32110	.73507	30	.26493	.05617	7	.94383	29
32	.67913	23	.32087	.73537	30	.26463	.05624	7	.94376	28
33	.67936	23	.32064	.73567	30	.26433	.05631	7	.94369	27
34	.67959	23	.32041	.73597	30	.26403	.05638	7	.94362	26
35	9.67982	24	10.32018	9.73627	30	10.26373	10.05645	6	9.94355	25
36	.68006	23	.31994	.73657	30	.26343	.05651	7	.94349	24
37	.68029	23	.31971	.73687	30	.26313	.05658	7	.94342	23
38	.68052	23	.31948	.73717	30	.26283	.05665	7	.94335	22
39	.68075	23	.31925	.73747	30	.26253	.05672	7	.94328	21
40	9.68098	23	10.31902	9.73777	30	10.26223	10.05679	7	9.94321	20
41	.68121	23	.31879	.73807	30	.26193	.05686	7	.94314	19
42	.68144	23	.31856	.73837	30	.26163	.05693	7	.94307	18
43	.68167	23	.31833	.73867	30	.26133	.05700	7	.94300	17
44	.68190	23	.31810	.73897	30	.26103	.05707	7	.94293	16
45	9.68213	24	10.31787	9.73927	30	10.26073	10.05714	7	9.94286	15
46	.68237	23	.31763	.73957	30	.26043	.05721	6	.94279	14
47	.68260	23	.31740	.73987	30	.26013	.05727	7	.94273	13
48	.68283	22	.31717	.74017	30	.25983	.05734	7	.94266	12
49	.68305	23	.31695	.74047	30	.25953	.05741	7	.94259	11
50	9.68328	23	10.31672	9.74077	30	10.25923	10.05748	7	9.94252	10
51	.68351	23	.31649	.74107	30	.25893	.05755	7	.94245	9
52	.68374	23	.31626	.74137	29	.25863	.05762	7	.94238	8
53	.68397	23	.31603	.74166	30	.25834	.05769	7	.94231	7
54	.68420	23	.31580	.74196	30	.25804	.05776	7	.94224	6
55	9.68443	23	10.31557	9.74226	30	10.25774	10.05783	7	9.94217	5
56	.68466	23	.31534	.74256	30	.25744	.05790	7	.94210	4
57	.68489	23	.31511	.74286	30	.25714	.05797	7	.94203	3
58	.68512	22	.31488	.74316	29	.25684	.05804	7	.94196	2
59	.68534	23	.31466	.74346	29	.25655	.05811	7	.94189	1
60	9.68557	23	10.31443	9.74375	30	10.25625	10.05818	7	9.94182	0
↑ 118° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 61°	

TABLE 3  
Common Logarithms of Trigonometric Functions (offset +10)

29° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 150°	
0	9.68557	23	10.31443	9.74375	30	10.25625	10.05818	7	9.94182	60
1	.68580	23	.31420	.74405	30	.25595	.05825	7	.94175	59
2	.68603	23	.31397	.74435	30	.25565	.05832	7	.94168	58
3	.68625	22	.31375	.74465	30	.25535	.05839	7	.94161	57
4	.68648	23	.31352	.74494	29	.25506	.05846	7	.94154	56
5	9.68671	23	10.31329	9.74524	30	10.25476	10.05853	7	9.94147	55
6	.68694	22	.31306	.74554	30	.25446	.05860	7	.94140	54
7	.68716	22	.31284	.74583	29	.25417	.05867	7	.94133	53
8	.68739	23	.31261	.74613	30	.25387	.05874	7	.94126	52
9	.68762	22	.31238	.74643	30	.25357	.05881	7	.94119	51
10	9.68784	23	10.31216	9.74673	29	10.25327	10.05888	7	9.94112	50
11	.68807	22	.31193	.74702	30	.25298	.05895	7	.94105	49
12	.68829	22	.31171	.74732	30	.25268	.05902	7	.94098	48
13	.68852	23	.31148	.74762	29	.25238	.05909	8	.94091	47
14	.68875	22	.31125	.74791	30	.25209	.05916	7	.94084	46
15	9.68897	23	10.31103	9.74821	30	10.25179	10.05924	7	9.94112	45
16	.68920	22	.31080	.74851	29	.25149	.05931	7	.94069	44
17	.68942	23	.31058	.74880	29	.25120	.05938	7	.94062	43
18	.68965	22	.31035	.74910	30	.25090	.05945	7	.94055	42
19	.68987	23	.31013	.74939	29	.25061	.05952	7	.94048	41
20	9.69010	22	10.30990	9.74969	29	10.25031	10.05959	7	9.94041	40
21	.69032	23	.30968	.74998	30	.25002	.05966	7	.94034	39
22	.69055	23	.30945	.75028	30	.24972	.05973	7	.94027	38
23	.69077	22	.30923	.75058	30	.24942	.05980	7	.94020	37
24	.69100	22	.30900	.75087	29	.24913	.05987	8	.94013	36
25	9.69122	22	10.30878	9.75117	29	10.24883	10.05995	7	9.94006	35
26	.69144	23	.30856	.75146	30	.24854	.06002	7	.93999	34
27	.69167	22	.30833	.75176	29	.24824	.06009	7	.93991	33
28	.69189	23	.30811	.75205	29	.24795	.06016	7	.93984	32
29	.69212	22	.30788	.75235	30	.24765	.06023	7	.93977	31
30	9.69234	22	10.30766	9.75264	29	10.24736	10.06030	7	9.93970	30
31	.69256	23	.30744	.75294	30	.24706	.06037	8	.93963	29
32	.69279	22	.30721	.75323	29	.24677	.06044	7	.93955	28
33	.69301	22	.30699	.75353	30	.24647	.06051	7	.93948	27
34	.69323	22	.30677	.75382	29	.24618	.06058	7	.93941	26
35	9.69345	23	10.30655	9.75411	30	10.24589	10.06066	7	9.93934	25
36	.69368	22	.30632	.75441	29	.24559	.06073	7	.93927	24
37	.69390	22	.30610	.75470	30	.24530	.06080	7	.93920	23
38	.69412	22	.30588	.75500	30	.24500	.06087	8	.93912	22
39	.69434	22	.30566	.75529	29	.24471	.06094	7	.93905	21
40	9.69456	23	10.30544	9.75558	29	10.24442	10.06102	7	9.93898	20
41	.69479	22	.30521	.75588	29	.24412	.06109	7	.93891	19
42	.69501	22	.30499	.75617	30	.24383	.06116	8	.93884	18
43	.69523	22	.30477	.75647	29	.24353	.06123	8	.93876	17
44	.69545	22	.30455	.75676	29	.24324	.06130	7	.93869	16
45	9.69567	22	10.30433	9.75705	30	10.24295	10.06138	7	9.93862	15
46	.69589	22	.30411	.75735	29	.24265	.06145	8	.93855	14
47	.69611	22	.30389	.75764	29	.24236	.06152	7	.93847	13
48	.69633	22	.30367	.75793	29	.24207	.06159	7	.93840	12
49	.69655	22	.30345	.75822	29	.24178	.06166	7	.93833	11
50	9.69677	22	10.30323	9.75852	30	10.24148	10.06174	7	9.93826	10
51	.69699	22	.30301	.75881	29	.24119	.06181	8	.93819	9
52	.69721	22	.30279	.75910	29	.24090	.06188	7	.93811	8
53	.69743	22	.30257	.75939	30	.24061	.06195	7	.93804	7
54	.69765	22	.30235	.75969	29	.24031	.06202	8	.93797	6
55	9.69787	22	10.3021							



TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
30° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 149°	
0	9.69897	22	10.30103	9.76144	29	10.23856	10.06247	7	9.93753	60
1	.69919	22	.30081	.76173	29	.23827	.06254	7	.93746	59
2	.69941	22	.30059	.76202	29	.23798	.06262	7	.93738	58
3	.69963	22	.30037	.76231	29	.23769	.06269	7	.93731	57
4	.69984	21	.30016	.76261	30	.23739	.06276	7	.93724	56
5	9.70006	22	10.29994	9.76290	29	10.23710	10.06283	8	9.93717	55
6	.70028	22	.29972	.76319	29	.23681	.06291	8	.93709	54
7	.70050	22	.29950	.76348	29	.23652	.06298	7	.93702	53
8	.70072	22	.29928	.76377	29	.23623	.06305	7	.93695	52
9	.70093	21	.29907	.76406	29	.23594	.06313	8	.93687	51
10	9.70115	22	10.29885	9.76435	29	10.23565	10.06320	7	9.93680	50
11	.70137	22	.29863	.76464	29	.23536	.06327	7	.93673	49
12	.70159	21	.29841	.76493	29	.23507	.06335	8	.93665	48
13	.70180	22	.29819	.76522	29	.23478	.06342	7	.93658	47
14	.70202	22	.29798	.76551	29	.23449	.06350	8	.93650	46
15	9.70224	21	10.29776	9.76580	29	10.23420	10.06357	7	9.93643	45
16	.70245	22	.29755	.76609	30	.23391	.06364	8	.93636	44
17	.70267	21	.29733	.76638	29	.23361	.06372	7	.93628	43
18	.70288	22	.29712	.76668	29	.23332	.06379	7	.93621	42
19	.70310	22	.29690	.76697	28	.23303	.06386	8	.93614	41
20	9.70332	21	10.29668	9.76725	29	10.23275	10.06394	7	9.93606	40
21	.70353	22	.29647	.76754	29	.23246	.06401	8	.93599	39
22	.70375	21	.29625	.76783	29	.23217	.06409	7	.93591	38
23	.70396	22	.29604	.76812	29	.23188	.06416	7	.93584	37
24	.70418	21	.29582	.76841	29	.23159	.06423	8	.93577	36
25	9.70439	22	10.29561	9.76870	29	10.23130	10.06431	7	9.93569	35
26	.70461	21	.29539	.76899	29	.23101	.06438	8	.93562	34
27	.70482	22	.29518	.76928	29	.23072	.06446	7	.93554	33
28	.70504	22	.29496	.76957	29	.23043	.06453	7	.93547	32
29	.70525	21	.29475	.76986	29	.23014	.06461	8	.93539	31
30	9.70547	21	10.29453	9.77015	29	10.22985	10.06468	7	9.93532	30
31	.70568	22	.29432	.77044	29	.22956	.06475	7	.93525	29
32	.70590	21	.29410	.77073	28	.22927	.06483	8	.93517	28
33	.70611	22	.29389	.77101	29	.22898	.06490	7	.93510	27
34	.70633	21	.29367	.77130	29	.22870	.06498	8	.93502	26
35	9.70654	21	10.29346	9.77159	29	10.22841	10.06505	8	9.93495	25
36	.70675	22	.29325	.77188	29	.22812	.06513	7	.93487	24
37	.70697	21	.29303	.77217	29	.22783	.06520	8	.93480	23
38	.70718	22	.29282	.77246	28	.22754	.06528	7	.93472	22
39	.70739	22	.29261	.77274	29	.22726	.06535	8	.93465	21
40	9.70761	21	10.29239	9.77303	29	10.22697	10.06543	7	9.93457	20
41	.70782	21	.29218	.77332	29	.22668	.06550	8	.93450	19
42	.70803	21	.29197	.77361	29	.22639	.06558	7	.93442	18
43	.70824	22	.29176	.77390	28	.22610	.06565	8	.93435	17
44	.70846	21	.29154	.77418	29	.22582	.06573	7	.93427	16
45	9.70867	21	10.29133	9.77447	29	10.22553	10.06580	8	9.93420	15
46	.70888	21	.29112	.77476	29	.22524	.06588	7	.93412	14
47	.70909	22	.29091	.77505	28	.22495	.06595	8	.93405	13
48	.70931	21	.29069	.77533	29	.22467	.06603	7	.93397	12
49	.70952	21	.29048	.77562	29	.22438	.06610	8	.93390	11
50	9.70973	21	10.29027	9.77591	28	10.22409	10.06618	7	9.93382	10
51	.70994	21	.29006	.77619	29	.22381	.06625	8	.93375	9
52	.71015	21	.28985	.77648	29	.22352	.06633	7	.93367	8
53	.71036	22	.28964	.77677	29	.22323	.06640	8	.93360	7
54	.71058	21	.28942	.77706	28	.22294	.06648	8	.93352	6
55	9.71079	21	10.28921	9.77734	29	10.22266	10.06656	7	9.93344	5
56	.71100	21	.28900	.77763	28	.22237	.06663	8	.93337	4
57	.71121	21	.28879	.77791	29	.22209	.06671	7	.93329	3
58	.71142	21	.28858	.77820	29	.22180	.06678	8	.93322	2
59	.71163	21	.28837	.77849	28	.22151	.06686	7	.93314	1
60	9.71184	21	10.28816	9.77877	28	10.22123	10.06693	8	9.93307	0
↑	120° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 59°

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
31° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 148°	
0	9.71184	21	10.28816	9.77877	29	10.22123	10.06693	8	9.93307	60
1	.71205	21	.28795	.77906	29	.22094	.06701	8	.93299	59
2	.71226	21	.28774	.77935	29	.22065	.06709	7	.93291	58
3	.71247	21	.28753	.77963	28	.22037	.06716	8	.93284	57
4	.71268	21	.28732	.77992	29	.22008	.06724	7	.93276	56
5	9.71289	21	10.28711	9.78020	29	10.21980	10.06731	8	9.93269	55
6	.71310	21	.28690	.78049	29	.21951	.06739	8	.93261	54
7	.71331	21	.28669	.78077	28	.21923	.06747	7	.93253	53
8	.71352	21	.28648	.78106	29	.21894	.06754	8	.93246	52
9	.71373	20	.28627	.78135	28	.21865	.06762	8	.93238	51
10	9.71393	21	10.28607	9.78163	29	10.21837	10.06770	7	9.93230	50
11	.71414	21	.28586	.78192	28	.21808	.06777	8	.93223	49
12	.71435	21	.28565	.78220	29	.21780	.06785	8	.93215	48
13	.71456	21	.28544	.78249	28	.21751	.06793	8	.93207	47
14	.71477	21	.28523	.78277	29	.21723	.06800	7	.93200	46
15	9.71498	21	10.28502	9.78306	28	10.21694	10.06808	8	9.93192	45
16	.71519	20	.28481	.78334	29	.21666	.06816	8	.93184	44
17	.71539	20	.28461	.78363	28	.21637	.06823	7	.93177	43
18	.71560	21	.28440	.78391	28	.21609	.06831	8	.93169	42
19	.71581	21	.28419	.78419	29	.21581	.06839	7	.93161	41
20	9.71602	20	10.28398	9.78448	28	10.21552	10.06846	8	9.93154	40
21	.71622	21	.28378	.78476	29	.21524	.06854	8	.93146	39
22	.71643	21	.28357	.78505	28	.21495	.06862	7	.93138	38
23	.71664	21	.28336	.78533	29	.21467	.06869	8	.93131	37
24	.71685	20	.28315	.78562	28	.21438	.06877	8	.93123	36
25	9.71705	21	10.28295	9.78590	28	10.21410	10.06885	7	9.93115	35
26	.71726	21	.28274	.78618	29	.21382	.06892	8	.93108	34
27	.71747	20	.28253	.78647	28	.21353	.06900	8	.93100	33
28	.71767	21	.28232	.78675	28	.21325	.06908	8	.93092	32
29	.71788	21	.28212	.78704	28	.21296	.06916	7	.93084	31
30	9.71809	21	10.28191	9.78732	28	10.21268	10.06923	8	9.93077	30
31	.71829	20	.28171	.78760	29	.21240	.06931	8	.93069	29
32	.71850	20	.28150	.78789	28	.21211	.06939	8	.93061	28
33	.71870	21	.28130	.78817	28	.21183	.06947	8	.93053	27
34	.71891	20	.28109	.78845	29	.21155	.06954	7	.93046	26
35	9.71911	21	10.28089	9.78874	28	10.21126	10.06962	8	9.93038	25
36	.71932	20	.28068	.78902	28	.21098	.06970	8	.93030	24
37	.71952	21	.28048	.78930	29	.21070	.06978	8	.93022	23
38	.71973	21	.28027	.78959	28	.21041	.06986	8	.93014	22
39	.71994	20	.28006	.78987	28	.21013	.06993	7	.93007	21
40	9.72014	21	10.27986	9.79015	28	10.20985	10.07001	8	9.92999	20
41	.72034	21	.27966	.79043	29	.20957	.07009	8	.92991	19
42	.72055	20	.27945	.79072	28	.20928	.07017	7	.92983	18
43	.72075	21	.27925	.79100	28	.20900	.07024	8	.92976	17
44	.72096	21	.27904	.79128	28	.20872	.07032	8	.92968	16
45	9.72116	21	10.27884	9.79156	29	10.20844	10.07040	8	9.92960	15
46	.72137	20	.27863	.79185	28	.20815	.07048	8	.92952	14
47	.72157	20	.27843	.79213	28	.20787	.07056	8	.92944	13
48	.72177	21	.27823	.79241	28	.20759	.07064	8	.92936	12
49	.72198	20	.27802	.79269	28	.20731	.07071	7	.92929	11
50	9.72218	21	10.27782	9.79297	29	10.20703	10.07079	8	9.92921	10
51	.72238	21	.27762	.79326	28	.20674	.07087	8	.92913	9
52	.72259	20	.27741	.79354	28	.20646	.07095	8	.92905	8
53	.72279	20	.27721	.79382	28	.20618	.07103	8	.92897	7
54	.72299	21	.27701	.79410	28	.20590	.07111	8	.92889	6
55	9.72320	20	10.27680	9.79438	28	10.20562	10.07119	7	9.92881</	

TABLE 3  
Common Logarithms of Trigonometric Functions (offset +10)

32° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 147°	
0	9.72421		10.27579	9.79579		10.20421	10.07158		9.92842	60
1	.72441	20	.27559	.79607	28	.20393	.07166	8	.92834	59
2	.72461	20	.27539	.79635	28	.20365	.07174	8	.92826	58
3	.72482	21	.27518	.79663	28	.20337	.07182	8	.92818	57
4	.72502	20	.27498	.79691	28	.20309	.07190	8	.92810	56
5	9.72522		10.27478	9.79719		10.20281	10.07197		9.92803	55
6	.72542	20	.27458	.79747	28	.20253	.07205	8	.92795	54
7	.72562	20	.27438	.79776	29	.20224	.07213	8	.92787	53
8	.72582	20	.27418	.79804	28	.20196	.07221	8	.92779	52
9	.72602	20	.27398	.79832	28	.20168	.07229	8	.92771	51
10	9.72622		10.27378	9.79860		10.20140	10.07237		9.92763	50
11	.72643	21	.27357	.79888	28	.20112	.07245	8	.92755	49
12	.72663	20	.27337	.79916	28	.20084	.07253	8	.92747	48
13	.72683	20	.27317	.79944	28	.20056	.07261	8	.92739	47
14	.72703	20	.27297	.79972	28	.20028	.07269	8	.92731	46
15	9.72723		10.27277	9.80000		10.20000	10.07277		9.92723	45
16	.72743	20	.27257	.80028	28	.19972	.07285	8	.92715	44
17	.72763	20	.27237	.80056	28	.19944	.07293	8	.92707	43
18	.72783	20	.27217	.80084	28	.19916	.07301	8	.92699	42
19	.72803	20	.27197	.80112	28	.19888	.07309	8	.92691	41
20	9.72823		10.27177	9.80140		10.19860	10.07317		9.92763	40
21	.72843	20	.27157	.80168	27	.19832	.07325	8	.92675	39
22	.72863	20	.27137	.80195	28	.19805	.07333	8	.92667	38
23	.72883	20	.27117	.80223	28	.19777	.07341	8	.92659	37
24	.72902	19	.27098	.80251	28	.19749	.07349	8	.92651	36
25	9.72922		10.27078	9.80279		10.19721	10.07357		9.92643	35
26	.72942	20	.27058	.80307	28	.19693	.07365	8	.92635	34
27	.72962	20	.27038	.80335	28	.19665	.07373	8	.92627	33
28	.72982	20	.27018	.80363	28	.19637	.07381	8	.92619	32
29	.73002	20	.26998	.80391	28	.19609	.07389	8	.92611	31
30	9.73022		10.26978	9.80419		10.19581	10.07397		9.92603	30
31	.73041	19	.26959	.80447	27	.19553	.07405	8	.92595	29
32	.73061	20	.26939	.80474	28	.19526	.07413	8	.92587	28
33	.73081	20	.26919	.80502	28	.19498	.07421	8	.92579	27
34	.73101	20	.26899	.80530	28	.19470	.07429	8	.92571	26
35	9.73121		10.26879	9.80558		10.19442	10.07437		9.92563	25
36	.73140	20	.26860	.80586	28	.19414	.07445	9	.92555	24
37	.73160	20	.26840	.80614	28	.19386	.07454	8	.92546	23
38	.73180	20	.26820	.80642	28	.19358	.07462	8	.92538	22
39	.73200	19	.26800	.80669	28	.19331	.07470	8	.92530	21
40	9.73219		10.26781	9.80697		10.19303	10.07478		9.92522	20
41	.73239	20	.26761	.80725	28	.19275	.07486	8	.92514	19
42	.73259	20	.26741	.80753	28	.19247	.07494	8	.92506	18
43	.73278	19	.26722	.80781	28	.19219	.07502	8	.92498	17
44	.73298	20	.26702	.80808	28	.19192	.07510	8	.92490	16
45	9.73318		10.26682	9.80836		10.19164	10.07518		9.92482	15
46	.73337	20	.26663	.80864	28	.19136	.07527	8	.92474	14
47	.73357	20	.26643	.80892	27	.19108	.07535	8	.92466	13
48	.73377	19	.26623	.80919	28	.19081	.07543	8	.92457	12
49	.73396	20	.26604	.80947	28	.19053	.07551	8	.92449	11
50	9.73416		10.26584	9.80975		10.19025	10.07559		9.92441	10
51	.73435	20	.26565	.81003	27	.18997	.07567	8	.92433	9
52	.73455	19	.26545	.81030	28	.18970	.07575	8	.92425	8
53	.73474	20	.26526	.81058	28	.18942	.07584	8	.92416	7
54	.73494	19	.26506	.81086	27	.18914	.07592	8	.92408	6
55	9.73513		10.26487	9.81113		10.18887	10.07600		9.92400	5
56	.73533	20	.26467	.81141	28	.18859	.07608	8	.92392	4
57	.73552	19	.26448	.81169	28	.18831	.07616	8	.92384	3
58	.73572	20	.26428	.81196	27	.18804	.07624	8	.92376	2
59	.73591	19	.26409	.81224	28	.18776	.07633	9	.92367	1
60	9.73611		10.26389	9.81252		10.18748	10.07641		9.92359	0
↑ 122° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 57°	

TABLE 3  
Common Logarithms of Trigonometric Functions (offset +10)

33° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 146°	
0	9.73611		10.26389	9.81252		10.18748	10.07641		9.92359	60
1	.73630	19	.26370	.81279	27	.18721	.07649	8	.92351	59
2	.73650	20	.26350	.81307	28	.18693	.07657	8	.92343	58
3	.73669	19	.26331	.81335	28	.18665	.07665	8	.92335	57
4	.73689	20	.26311	.81362	27	.18638	.07674	9	.92326	56
5	9.73708		10.26292	9.81390		10.18610	10.07682		9.92318	55
6	.73727	19	.26273	.81418	28	.18582	.07690	8	.92310	54
7	.73747	20	.26253	.81445	27	.18555	.07698	8	.92302	53
8	.73766	19	.26234	.81473	28	.18527	.07707	9	.92293	52
9	.73785	20	.26215	.81500	27	.18500	.07715	8	.92285	51
10	9.73805		10.26195	9.81528		10.18472	10.07723		9.92277	50
11	.73824	19	.26176	.81556	28	.18444	.07731	8	.92269	49
12	.73843	19	.26157	.81583	27	.18417	.07740	9	.92260	48
13	.73863	20	.26137	.81611	28	.18389	.07748	8	.92252	47
14	.73882	19	.26118	.81638	27	.18362	.07756	8	.92244	46
15	9.73901		10.26099	9.81666		10.18334	10.07765		9.92235	45
16	.73921	20	.26079	.81693	27	.18307	.07773	8	.92227	44
17	.73940	19	.26060	.81721	28	.18279	.07781	8	.92219	43
18	.73959	19	.26041	.81748	27	.18252	.07789	8	.92211	42
19	.73978	20	.26022	.81776	28	.18224	.07798	9	.92202	41
20	9.73997		10.26003	9.81803		10.18197	10.07806		9.92194	40
21	.74017	20	.25983	.81831	27	.18169	.07814	8	.92186	39
22	.74036	19	.25964	.81858	28	.18142	.07823	9	.92177	38
23	.74055	19	.25945	.81886	28	.18114	.07831	8	.92169	37
24	.74074	20	.25926	.81913	27	.18087	.07839	8	.92161	36
25	9.74093		10.25907	9.81941		10.18059	10.07848		9.92152	35
26	.74113	19	.25887	.81968	28	.18032	.07856	8	.92144	34
27	.74132	19	.25868	.81996	28	.18004	.07864	8	.92136	33
28	.74151	19	.25849	.82023	27	.17977	.07873	9	.92127	32
29	.74170	20	.25830	.82051	28	.17949	.07881	8	.92119	31
30	9.74189		10.25811	9.82078		10.17922	10.07889		9.92111	30
31	.74208	19	.25792	.82106	28	.17894	.07898	8	.92102	29
32	.74227	19	.25773	.82133	27	.17867	.07906	8	.92094	28
33	.74246	19	.25754	.82161	28	.17839	.07914	8	.92086	27
34	.74265	19	.25735	.82188	27	.17812	.07923	8	.92077	26
35	9.74284		10.25716	9.82215		10.17785	10.07931		9.92069	25
36	.74303	20	.25697	.82243	27	.17757	.07940	8	.92060	24
37	.74322	19	.25678	.82270	27	.17730	.07948	8	.92052	23
38	.74341	19	.25659	.82298	28	.17702	.07956	8	.92044	22
39	.74360	19	.25640	.82325	27	.17675	.07965	8	.92035	21
40	9.74379		10.25621	9.82352		10.17648	10.07973		9.92027	20
41	.74398	19	.25602	.82380	27	.17620	.07982	8	.92018	19
42	.74417	19	.25583	.82407	28	.17593	.07990	8	.92010	18
43	.74436	19	.25564	.82435	27	.17565	.07998	8	.92002	17
44	.74455	19	.25545	.82462	27	.17538	.08007	8	.91993	16
45	9.74474		10.25526	9.82489		10.17511	10.08015		9.91985	15
46	.74493	19	.25507	.82517	27	.17483	.08024	8	.91976	14
47	.74512	19	.25488	.82544	27	.17456	.08032	8	.91968	13
48	.74531	18	.25469	.82571	28	.17429	.08041	8	.91959	12
49	.74549	19	.25451	.82599	27	.17401	.08049	9	.91951	11
50	9.74568		10.25432	9.82626		10.17374	10.08058		9.91942	10
51	.74587	19	.25413	.82653	28	.17347	.08066	8	.91934	9
52	.74606	19	.25394	.82681	28	.17319	.08075	8	.91925	8
53	.74625	19	.25375	.82708	27	.17292	.08083	8	.91917	7
54	.74644	18	.25356	.82735	27	.17265	.08092	8	.91908	6
55	9.74662		10.25338	9.82762		10.17238	10.08100		9.91900	5
56	.74681	19	.25319	.82790	27	.17210	.08109	8	.91891	4
57	.74700	19								

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
34° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 145°	
0	9.74756	19	10.25244	9.82899	27	10.17101	10.08143	8	9.91857	60
1	.74775	19	.25225	.82926	27	.17074	.08151	9	.91849	59
2	.74794	18	.25206	.82953	27	.17047	.08160	8	.91840	58
3	.74812	18	.25188	.82980	27	.17020	.08168	8	.91832	57
4	.74831	19	.25169	.83008	28	.16992	.08177	9	.91823	56
5	9.74850	18	10.25150	9.83035	27	10.16965	10.08185	9	9.91815	55
6	.74868	18	.25132	.83062	27	.16938	.08194	9	.91806	54
7	.74887	19	.25113	.83089	27	.16911	.08202	8	.91798	53
8	.74906	18	.25094	.83117	28	.16883	.08211	9	.91789	52
9	.74924	18	.25076	.83144	27	.16856	.08219	8	.91781	51
10	9.74943	18	10.25057	9.83171	27	10.16829	10.08228	9	9.91772	50
11	.74961	19	.25039	.83198	27	.16802	.08237	8	.91763	49
12	.74980	19	.25020	.83225	27	.16775	.08245	8	.91755	48
13	.74999	18	.25001	.83252	27	.16748	.08254	9	.91746	47
14	.75017	19	.24983	.83280	28	.16720	.08262	8	.91738	46
15	9.75036	18	10.24964	9.83307	27	10.16693	10.08271	9	9.91729	45
16	.75054	19	.24946	.83334	27	.16666	.08280	9	.91720	44
17	.75073	18	.24927	.83361	27	.16639	.08288	8	.91712	43
18	.75091	19	.24909	.83388	27	.16612	.08297	9	.91703	42
19	.75110	18	.24890	.83415	27	.16585	.08305	8	.91695	41
20	9.75128	19	10.24872	9.83442	28	10.16558	10.08314	9	9.91686	40
21	.75147	18	.24853	.83470	27	.16530	.08323	8	.91677	39
22	.75165	19	.24835	.83497	27	.16503	.08331	9	.91669	38
23	.75184	18	.24816	.83524	27	.16476	.08340	8	.91660	37
24	.75202	19	.24798	.83551	27	.16449	.08349	9	.91651	36
25	9.75221	18	10.24779	9.83578	27	10.16422	10.08357	9	9.91643	35
26	.75239	19	.24761	.83605	27	.16395	.08366	9	.91634	34
27	.75258	18	.24742	.83632	27	.16368	.08375	8	.91625	33
28	.75276	18	.24724	.83659	27	.16341	.08383	8	.91617	32
29	.75294	19	.24706	.83686	27	.16314	.08392	9	.91608	31
30	9.75313	18	10.24687	9.83713	27	10.16287	10.08401	8	9.91599	30
31	.75331	19	.24669	.83740	28	.16260	.08409	9	.91591	29
32	.75350	18	.24650	.83768	27	.16232	.08418	8	.91582	28
33	.75368	18	.24632	.83795	27	.16205	.08427	9	.91573	27
34	.75386	19	.24614	.83822	27	.16178	.08435	8	.91565	26
35	9.75405	18	10.24595	9.83849	27	10.16151	10.08444	9	9.91556	25
36	.75423	18	.24577	.83876	27	.16124	.08453	9	.91547	24
37	.75441	18	.24559	.83903	27	.16097	.08462	8	.91538	23
38	.75459	19	.24541	.83930	27	.16070	.08470	9	.91530	22
39	.75478	18	.24522	.83957	27	.16043	.08479	9	.91521	21
40	9.75496	18	10.24504	9.83984	27	10.16016	10.08488	8	9.91512	20
41	.75514	19	.24486	.84011	27	.15989	.08496	9	.91504	19
42	.75533	18	.24467	.84038	27	.15962	.08505	9	.91495	18
43	.75551	18	.24449	.84065	27	.15935	.08514	9	.91486	17
44	.75569	18	.24431	.84092	27	.15908	.08523	8	.91477	16
45	9.75587	18	10.24413	9.84119	27	10.15881	10.08531	9	9.91469	15
46	.75605	19	.24395	.84146	27	.15854	.08540	9	.91460	14
47	.75624	18	.24376	.84173	27	.15827	.08549	9	.91451	13
48	.75642	18	.24358	.84200	27	.15800	.08558	9	.91442	12
49	.75660	18	.24340	.84227	27	.15773	.08567	8	.91433	11
50	9.75678	18	10.24322	9.84254	26	10.15746	10.08575	9	9.91425	10
51	.75696	18	.24304	.84280	27	.15720	.08584	9	.91416	9
52	.75714	19	.24286	.84307	27	.15693	.08593	9	.91407	8
53	.75733	18	.24267	.84334	27	.15666	.08602	9	.91398	7
54	.75751	18	.24249	.84361	27	.15639	.08611	8	.91389	6
55	9.75769	18	10.24231	9.84388	27	10.15612	10.08619	9	9.91381	5
56	.75787	18	.24213	.84415	27	.15585	.08628	9	.91372	4
57	.75805	18	.24195	.84442	27	.15558	.08637	9	.91363	3
58	.75823	18	.24177	.84469	27	.15531	.08646	9	.91354	2
59	.75841	18	.24159	.84496	27	.15504	.08655	9	.91345	1
60	9.75859	18	10.24141	9.84523	27	10.15477	10.08664	9	9.91336	0
↑	124° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 55°

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
35° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 144°	
0	9.75859	18	10.24141	9.84523	27	10.15477	10.08664	8	9.91336	60
1	.75877	18	.24123	.84550	27	.15450	.08672	8	.91328	59
2	.75895	18	.24105	.84576	26	.15424	.08681	9	.91319	58
3	.75913	18	.24087	.84603	27	.15397	.08690	9	.91310	57
4	.75931	18	.24069	.84630	27	.15370	.08699	9	.91301	56
5	9.75949	18	10.24051	9.84657	27	10.15343	10.08708	9	9.91292	55
6	.75967	18	.24033	.84684	27	.15316	.08717	9	.91283	54
7	.75985	18	.24015	.84711	27	.15289	.08726	9	.91274	53
8	.76003	18	.23997	.84738	27	.15262	.08734	8	.91265	52
9	.76021	18	.23979	.84764	26	.15236	.08743	9	.91257	51
10	9.76039	18	10.23961	9.84791	27	10.15209	10.08752	9	9.91248	50
11	.76057	18	.23943	.84818	27	.15182	.08761	9	.91239	49
12	.76075	18	.23925	.84845	27	.15155	.08770	9	.91230	48
13	.76093	18	.23907	.84872	27	.15128	.08779	9	.91221	47
14	.76111	18	.23889	.84899	27	.15101	.08788	9	.91212	46
15	9.76129	17	10.23871	9.84925	27	10.15075	10.08797	9	9.91203	45
16	.76146	18	.23853	.84952	27	.15048	.08806	9	.91194	44
17	.76164	18	.23836	.84979	27	.15021	.08815	9	.91185	43
18	.76182	18	.23818	.85006	27	.14994	.08824	9	.91176	42
19	.76200	18	.23800	.85033	27	.14967	.08833	9	.91167	41
20	9.76218	18	10.23782	9.85059	27	10.14941	10.08842	9	9.91158	40
21	.76236	17	.23764	.85086	27	.14914	.08851	9	.91149	39
22	.76253	18	.23747	.85113	27	.14887	.08859	8	.91141	38
23	.76271	18	.23729	.85140	27	.14860	.08868	9	.91132	37
24	.76289	18	.23711	.85166	26	.14834	.08877	9	.91123	36
25	9.76307	17	10.23693	9.85193	27	10.14807	10.08886	9	9.91114	35
26	.76324	18	.23676	.85220	27	.14780	.08895	9	.91105	34
27	.76342	18	.23658	.85247	27	.14753	.08904	9	.91096	33
28	.76360	18	.23640	.85273	26	.14727	.08913	9	.91087	32
29	.76378	18	.23622	.85300	27	.14700	.08922	9	.91078	31
30	9.76395	18	10.23605	9.85327	27	10.14673	10.08931	9	9.91069	30
31	.76413	18	.23587	.85354	27	.14646	.08940	9	.91060	29
32	.76431	17	.23569	.85380	26	.14620	.08949	9	.91051	28
33	.76448	18	.23552	.85407	27	.14593	.08958	9	.91042	27
34	.76466	18	.23534	.85434	26	.14566	.08967	9	.91033	26
35	9.76484	17	10.23516	9.85460	27	10.14540	10.08977	9	9.91023	25
36	.76501	17	.23499	.85487	27	.14513	.08986	9	.91014	24
37	.76519	18	.23481	.85514	26	.14486	.08995	9	.91005	23
38	.76537	18	.23463	.85540	26	.14460	.09004	9	.90996	22
39	.76554	18	.23446	.85567	27	.14433	.09013	9	.90987	21
40	9.76572	18	10.23428	9.85594	26	10.14406	10.09022	9	9.90978	20
41	.76590	17	.23410	.85620	27	.14380	.09031	9	.90969	19
42	.76607	18	.23393	.85647	27	.14353	.09040	9	.90960	18
43	.76625	17	.23375	.85674	27	.14326	.09049	9	.90951	17
44	.76642	18	.23358	.85700	26	.14300	.09058	9	.90942	16
45	9.76660	17	10.23340	9.85727	27	10.14273	10.09067	9	9.90933	15
46	.76677	18	.23323	.85754	26	.14246	.09076	9	.90924	14
47	.76695	17	.23305	.85780	27	.14220	.09085	9	.90915	13
48	.76712	18	.23288	.85807	27	.14193	.09094	9	.90906	12
49	.76730	17	.23270	.85834	26	.14166	.09104	10	.90896	11
50	9.76747	18	10.23252	9.85860	27	10.14140	10.09113	9	9.90887	10
51	.76765	17	.23235	.85887	26	.14113	.09122	9	.90878	9
52	.76782	18	.23218	.85913	27	.14087	.09131	9	.90869	8
53	.76800	17	.23200	.85940	27	.14060	.09140	9	.90860	7
54	.76817	18	.23183	.85967	26	.14033	.09149	9	.90851	6
55	9.76835	17	10.23165	9.85993	27	10.14007	10.09158	10	9.9084	

TABLE 3  
Common Logarithms of Trigonometric Functions (offset +10)

36° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 143°	
0	9.76922		10.23078	9.86126		10.13874	10.09204		9.90796	60
1	.76939	17	.23061	.86153	27	.13847	.09213	9	.90787	59
2	.76957	18	.23043	.86179	26	.13821	.09223	10	.90777	58
3	.76974	17	.23026	.86206	27	.13794	.09232	9	.90768	57
4	.76991	17	.23009	.86232	26	.13768	.09241	9	.90759	56
5	9.77009		10.22991	9.86259		10.13741	10.09250		9.90750	55
6	.77026	17	.22974	.86285	26	.13715	.09259	9	.90741	54
7	.77043	17	.22957	.86312	27	.13688	.09269	10	.90731	53
8	.77061	18	.22939	.86338	26	.13662	.09278	9	.90722	52
9	.77078	17	.22922	.86365	27	.13635	.09287	9	.90713	51
10	9.77095		10.22905	9.86392		10.13608	10.09296		9.90704	50
11	.77112	18	.22888	.86418	26	.13582	.09306	10	.90694	49
12	.77130	17	.22870	.86445	27	.13555	.09315	9	.90685	48
13	.77147	17	.22853	.86471	26	.13529	.09324	9	.90676	47
14	.77164	17	.22836	.86498	26	.13502	.09333	9	.90667	46
15	9.77181		10.22819	9.86524		10.13476	10.09343		9.90657	45
16	.77199	18	.22801	.86551	27	.13449	.09352	9	.90648	44
17	.77216	17	.22784	.86577	26	.13423	.09361	9	.90639	43
18	.77233	17	.22767	.86603	26	.13397	.09370	9	.90630	42
19	.77250	18	.22750	.86630	27	.13370	.09380	10	.90620	41
20	9.77268		10.22732	9.86656		10.13344	10.09389		9.90611	40
21	.77285	17	.22715	.86683	26	.13317	.09398	10	.90602	39
22	.77302	17	.22698	.86709	27	.13291	.09408	9	.90592	38
23	.77319	17	.22681	.86736	26	.13264	.09417	9	.90583	37
24	.77336	17	.22664	.86762	26	.13238	.09426	9	.90574	36
25	9.77353		10.22647	9.86789		10.13211	10.09435		9.90565	35
26	.77370	17	.22630	.86815	26	.13185	.09445	9	.90555	34
27	.77387	17	.22613	.86842	27	.13158	.09454	9	.90546	33
28	.77405	18	.22595	.86868	26	.13132	.09463	9	.90537	32
29	.77422	17	.22578	.86894	26	.13106	.09473	10	.90527	31
30	9.77439		10.22561	9.86921		10.13079	10.09482		9.90518	30
31	.77456	17	.22544	.86947	27	.13053	.09491	9	.90509	29
32	.77473	17	.22527	.86974	26	.13026	.09501	10	.90499	28
33	.77490	17	.22510	.87000	26	.13000	.09510	9	.90490	27
34	.77507	17	.22493	.87027	27	.12973	.09520	10	.90480	26
35	9.77524		10.22476	9.87053		10.12947	10.09529		9.90471	25
36	.77541	17	.22459	.87079	26	.12921	.09538	9	.90462	24
37	.77558	17	.22442	.87106	27	.12894	.09548	10	.90452	23
38	.77575	17	.22425	.87132	26	.12868	.09557	9	.90443	22
39	.77592	17	.22408	.87158	26	.12842	.09566	9	.90434	21
40	9.77609		10.22391	9.87185		10.12815	10.09576		9.90424	20
41	.77626	17	.22374	.87211	26	.12789	.09585	9	.90415	19
42	.77643	17	.22357	.87238	27	.12762	.09595	10	.90405	18
43	.77660	17	.22340	.87264	26	.12736	.09604	9	.90396	17
44	.77677	17	.22323	.87290	26	.12710	.09614	10	.90386	16
45	9.77694		10.22306	9.87317		10.12683	10.09623		9.90377	15
46	.77711	17	.22289	.87343	26	.12657	.09632	9	.90368	14
47	.77728	16	.22272	.87369	26	.12631	.09642	10	.90358	13
48	.77744	17	.22255	.87396	27	.12604	.09651	9	.90349	12
49	.77761	17	.22239	.87422	26	.12578	.09661	10	.90339	11
50	9.77778		10.22222	9.87448		10.12552	10.09670		9.90330	10
51	.77795	17	.22205	.87475	26	.12525	.09680	9	.90320	9
52	.77812	17	.22188	.87501	26	.12499	.09689	9	.90311	8
53	.77829	17	.22171	.87527	27	.12473	.09699	9	.90301	7
54	.77846	16	.22154	.87554	26	.12446	.09708	10	.90292	6
55	9.77862		10.22138	9.87580		10.12420	10.09718		9.90282	5
56	.77879	17	.22121	.87606	26	.12394	.09727	9	.90273	4
57	.77896	17	.22104	.87633	27	.12367	.09737	10	.90263	3
58	.77913	17	.22087	.87659	26	.12341	.09746	9	.90254	2
59	.77930	17	.22070	.87685	26	.12315	.09756	10	.90244	1
60	9.77946		10.22054	9.87711		10.12289	10.09765		9.90235	0
↑ 126° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 53°	

TABLE 3  
Common Logarithms of Trigonometric Functions (offset +10)

37° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 142°	
0	9.77946		10.22054	9.87711		10.12289	10.09765		9.90235	60
1	.77963	17	.22037	.87738	26	.12262	.09775	10	.90225	59
2	.77980	17	.22020	.87764	26	.12236	.09784	9	.90216	58
3	.77997	17	.22003	.87790	26	.12210	.09794	10	.90206	57
4	.78013	16	.21987	.87817	27	.12183	.09803	9	.90197	56
5	9.78030		10.21970	9.87843		10.12157	10.09813		9.90187	55
6	.78047	17	.21953	.87869	26	.12131	.09822	9	.90178	54
7	.78063	16	.21937	.87895	26	.12105	.09832	10	.90168	53
8	.78080	17	.21920	.87922	27	.12078	.09841	9	.90159	52
9	.78097	17	.21903	.87948	26	.12052	.09851	10	.90149	51
10	9.78113		10.21887	9.87974		10.12026	10.09861		9.90139	50
11	.78130	17	.21870	.88000	26	.12000	.09870	9	.90130	49
12	.78147	17	.21853	.88027	27	.11973	.09880	10	.90120	48
13	.78163	16	.21837	.88053	26	.11947	.09889	9	.90111	47
14	.78180	17	.21820	.88079	26	.11921	.09899	10	.90101	46
15	9.78197		10.21803	9.88105		10.11895	10.09909		9.90091	45
16	.78213	17	.21787	.88131	26	.11869	.09918	9	.90082	44
17	.78229	16	.21770	.88158	27	.11842	.09928	10	.90072	43
18	.78246	16	.21754	.88184	26	.11816	.09937	9	.90063	42
19	.78263	17	.21737	.88210	26	.11790	.09947	10	.90053	41
20	9.78280		10.21720	9.88236		10.11764	10.09957		9.90043	40
21	.78296	17	.21704	.88262	26	.11738	.09966	9	.90034	39
22	.78313	16	.21687	.88289	27	.11711	.09976	10	.90024	38
23	.78329	17	.21671	.88315	26	.11685	.09986	9	.90014	37
24	.78346	16	.21654	.88341	26	.11659	.09995	9	.90005	36
25	9.78362		10.21638	9.88367		10.11633	10.10005		9.99995	35
26	.78379	16	.21621	.88393	26	.11607	.10015	9	.99985	34
27	.78395	16	.21605	.88420	27	.11580	.10024	9	.99976	33
28	.78412	17	.21588	.88446	26	.11554	.10034	10	.99966	32
29	.78428	16	.21572	.88472	26	.11528	.10044	10	.99956	31
30	9.78445		10.21555	9.88498		10.11502	10.10053		9.99947	30
31	.78461	17	.21539	.88524	26	.11476	.10063	9	.99937	29
32	.78478	17	.21522	.88550	26	.11450	.10073	10	.99927	28
33	.78494	16	.21506	.88577	27	.11423	.10082	9	.99918	27
34	.78510	16	.21490	.88603	26	.11397	.10092	10	.99908	26
35	9.78527		10.21473	9.88629		10.11371	10.10102		9.99898	25
36	.78543	17	.21457	.88655	26	.11345	.10112	9	.99888	24
37	.78560	17	.21440	.88681	26	.11319	.10121	9	.99879	23
38	.78576	16	.21424	.88707	26	.11293	.10131	10	.99869	22
39	.78592	16	.21408	.88733	26	.11267	.10141	10	.99859	21
40	9.78609		10.21391	9.88759		10.11241	10.10151		9.99849	20
41	.78625	17	.21375	.88786	26	.11214	.10160	9	.99840	19
42	.78642	16	.21358	.88812	26	.11188	.10170	10	.99830	18
43	.78658	16	.21342	.88838	26	.11162	.10180	10	.99820	17
44	.78674	16	.21326	.88864	26	.11136	.10190	10	.99810	16
45	9.78691		10.21309	9.88890		10.11110	10.10199		9.99801	15
46	.78707	16	.21293	.88916	26	.11084	.10209	9	.99791	14
47	.78723	16	.21277	.88942	26	.11058	.10219	10	.99781	13
48	.78739	16	.21261	.88968	26	.11032	.10229	10	.99771	12
49	.78756	17	.21244	.88994	26	.11006	.10239	9	.99761	11
50	9.78772		10.21228	9.89020		10.10980	10.10248		9.99752	10
51	.78788	17	.21212	.89046	27	.10954	.10258	9	.99742	9
52	.78804	16	.21195	.89073	26	.10927	.10268	10	.99732	8
53	.78821	16	.21179	.89099	26	.10901	.10278	10	.99722	7
54	.78837	16	.21163	.89125	26	.10875	.10288	10	.99712	6
55	9.78853		10.21147	9.89151		10.10849	10.10298		9.99702	5
56	.78869	17	.21131	.89177	26	.10823	.10307			

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
38° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 141°	
0	9.78934	16	10.21066	9.89281	26	10.10719	10.10347	10	9.89653	60
1	.78950	17	.21050	.89307	26	.10693	.10357	10	.89643	59
2	.78967	16	.21033	.89333	26	.10667	.10367	10	.89633	58
3	.78983	16	.21017	.89359	26	.10641	.10376	9	.89624	57
4	.78999	16	.21001	.89385	26	.10615	.10386	10	.89614	56
5	9.79015	16	10.20985	9.89411	26	10.10589	10.10396	10	9.89604	55
6	.79031	16	.20969	.89437	26	.10563	.10406	10	.89594	54
7	.79047	16	.20953	.89463	26	.10537	.10416	10	.89584	53
8	.79063	16	.20937	.89489	26	.10511	.10426	10	.89574	52
9	.79079	16	.20921	.89515	26	.10485	.10436	10	.89564	51
10	9.79095	16	10.20905	9.89541	26	10.10459	10.10446	10	9.89554	50
11	.79111	17	.20889	.89567	26	.10433	.10456	10	.89544	49
12	.79128	16	.20872	.89593	26	.10407	.10466	10	.89534	48
13	.79144	16	.20856	.89619	26	.10381	.10476	10	.89524	47
14	.79160	16	.20840	.89645	26	.10355	.10486	10	.89514	46
15	9.79176	16	10.20824	9.89671	26	10.10329	10.10496	9	9.89504	45
16	.79192	16	.20808	.89697	26	.10303	.10505	10	.89495	44
17	.79208	16	.20792	.89723	26	.10277	.10515	10	.89485	43
18	.79224	16	.20776	.89749	26	.10251	.10525	10	.89475	42
19	.79240	16	.20760	.89775	26	.10225	.10535	10	.89465	41
20	9.79256	16	10.20744	9.89801	26	10.10199	10.10545	10	9.89455	40
21	.79272	16	.20728	.89827	26	.10173	.10555	10	.89445	39
22	.79288	16	.20712	.89853	26	.10147	.10565	10	.89435	38
23	.79304	16	.20696	.89879	26	.10121	.10575	10	.89425	37
24	.79319	16	.20681	.89905	26	.10095	.10585	10	.89415	36
25	9.79335	16	10.20665	9.89931	26	10.10069	10.10595	10	9.89405	35
26	.79351	16	.20649	.89957	26	.10043	.10605	10	.89395	34
27	.79367	16	.20633	.89983	26	.10017	.10615	10	.89385	33
28	.79383	16	.20617	.90009	26	.09991	.10625	10	.89375	32
29	.79399	16	.20601	.90035	26	.09965	.10636	11	.89364	31
30	9.79415	16	10.20585	9.90061	25	10.09939	10.10646	10	9.89354	30
31	.79431	16	.20569	.90086	26	.09914	.10656	10	.89344	29
32	.79447	16	.20553	.90112	26	.09888	.10666	10	.89334	28
33	.79463	16	.20537	.90138	26	.09862	.10676	10	.89324	27
34	.79478	16	.20522	.90164	26	.09836	.10686	10	.89314	26
35	9.79494	16	10.20506	9.90190	26	10.09810	10.10696	10	9.89304	25
36	.79510	16	.20490	.90216	26	.09784	.10706	10	.89294	24
37	.79526	16	.20474	.90242	26	.09758	.10716	10	.89284	23
38	.79542	16	.20458	.90268	26	.09732	.10726	10	.89274	22
39	.79558	15	.20442	.90294	26	.09706	.10736	10	.89264	21
40	9.79573	16	10.20427	9.90320	26	10.09680	10.10746	10	9.89254	20
41	.79589	16	.20411	.90346	25	.09654	.10756	11	.89244	19
42	.79605	16	.20395	.90371	26	.09629	.10767	10	.89233	18
43	.79621	16	.20379	.90397	26	.09603	.10777	10	.89223	17
44	.79636	16	.20364	.90423	26	.09577	.10787	10	.89213	16
45	9.79652	16	10.20348	9.90449	26	10.09551	10.10797	10	9.89203	15
46	.79668	16	.20332	.90475	26	.09525	.10807	10	.89193	14
47	.79684	15	.20316	.90501	26	.09499	.10817	10	.89183	13
48	.79699	16	.20301	.90527	26	.09473	.10827	10	.89173	12
49	.79715	16	.20285	.90553	25	.09447	.10838	11	.89162	11
50	9.79731	15	10.20269	9.90578	26	10.09422	10.10848	10	9.89152	10
51	.79746	16	.20254	.90604	26	.09396	.10858	10	.89142	9
52	.79762	16	.20238	.90630	26	.09370	.10868	10	.89132	8
53	.79778	16	.20222	.90656	26	.09344	.10878	10	.89122	7
54	.79793	15	.20207	.90682	26	.09318	.10888	11	.89112	6
55	9.79809	16	10.20191	9.90708	26	10.09292	10.10899	10	9.89101	5
56	.79825	15	.20175	.90734	25	.09266	.10909	10	.89091	4
57	.79840	16	.20160	.90759	26	.09241	.10919	10	.89081	3
58	.79856	16	.20144	.90785	26	.09215	.10929	10	.89071	2
59	.79872	16	.20128	.90811	26	.09189	.10940	11	.89060	1
60	9.79887	15	10.20113	9.90837	26	10.09163	10.10950	10	9.89050	0
↑ 128° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 51°	

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
39° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 140°	
0	9.79887	16	10.20113	9.90837	26	10.09163	10.10950	10	9.89050	60
1	.79897	16	.20097	.90863	26	.09137	.10960	10	.89040	59
2	.79913	15	.20082	.90889	26	.09111	.10970	10	.89030	58
3	.79929	16	.20066	.90914	25	.09086	.10980	10	.89020	57
4	.79945	16	.20050	.90940	26	.09060	.10991	11	.89009	56
5	9.79961	16	10.20035	9.90966	26	10.09034	10.11001	10	9.88999	55
6	.79977	16	.20019	.90992	26	.09008	.11011	10	.88989	54
7	.79993	15	.20004	.91018	26	.08982	.11022	11	.88978	53
8	.80009	16	.20000	.91043	25	.08957	.11032	10	.88968	52
9	.80025	15	.19985	.91069	26	.08931	.11042	10	.88958	51
10	9.80041	15	10.19970	9.91095	26	10.08905	10.11052	11	9.88948	50
11	.80057	16	.19954	.91121	26	.08879	.11063	10	.88937	49
12	.80073	16	.19938	.91147	26	.08853	.11073	10	.88927	48
13	.80089	15	.19922	.91172	25	.08828	.11083	10	.88917	47
14	.80105	16	.19906	.91198	26	.08802	.11094	10	.88906	46
15	9.80121	16	10.19890	9.91224	26	10.08776	10.11104	10	9.88896	45
16	.80137	16	.19874	.91250	26	.08750	.11114	10	.88886	44
17	.80153	15	.19858	.91276	26	.08724	.11125	11	.88875	43
18	.80169	15	.19842	.91301	25	.08699	.11135	10	.88865	42
19	.80185	16	.19826	.91327	26	.08673	.11145	10	.88855	41
20	9.80197	16	10.19810	9.91353	26	10.08647	10.11156	10	9.88844	40
21	.80213	16	.19794	.91379	26	.08621	.11166	10	.88834	39
22	.80229	15	.19778	.91404	25	.08596	.11176	10	.88824	38
23	.80245	16	.19762	.91430	26	.08570	.11187	11	.88813	37
24	.80261	15	.19746	.91456	26	.08544	.11197	10	.88803	36
25	9.80274	16	10.19730	9.91482	26	10.08518	10.11207	11	9.88793	35
26	.80290	16	.19714	.91508	25	.08493	.11218	10	.88782	34
27	.80306	15	.19698	.91533	26	.08467	.11228	10	.88772	33
28	.80322	15	.19682	.91559	26	.08441	.11239	11	.88761	32
29	.80338	16	.19666	.91585	26	.08415	.11249	10	.88751	31
30	9.80351	15	10.19650	9.91610	26	10.08390	10.11259	11	9.88741	30
31	.80366	16	.19634	.91636	26	.08364	.11270	10	.88730	29
32	.80382	16	.19618	.91662	26	.08338	.11280	10	.88720	28
33	.80397	15	.19602	.91688	26	.08312	.11291	11	.88709	27
34	.80412	16	.19586	.91713	26	.08287	.11301	10	.88699	26
35	9.80428	15	10.19570	9.91739	26	10.08261	10.11312	10	9.88688	25
36	.80443	15	.19554	.91765	26	.08235	.11322	10	.88678	24
37	.80458	15	.19538	.91791	25	.08209	.11332	11	.88668	23
38	.80473	16	.19522	.91816	26	.08184	.11343	10	.88657	22
39	.80489	15	.19506	.91842	26	.08158	.11353	11	.88647	21
40	9.80504	15	10.19490	9.91868	26	10.08132	10.11364	10	9.88636	20
41	.80519	15	.19474	.91893	25	.08107	.11374	11	.88626	19
42	.80534	16	.19458	.91919	26	.08081	.11385	10	.88615	18
43	.80550	16	.19442	.91945	26	.08055	.11395	10	.88605	17
44	.80565	15	.19426	.91971	25	.08029	.11406	11	.88594	16
45	9.80580	15	10.19410	9.91996	26	10.08004	10.11416	11	9.88584	15
46	.80595	15	.19394	.92022	26	.07978	.11427	10	.88573	14
47	.80610	15	.19378	.92048	25	.07952	.11437	11	.88563	13
48	.80625	16	.19362	.92073	26	.07927	.11448	10	.88552	12
49	.80641	15	.19346	.92099	26	.07901	.11458	11	.88542	11
50	9.80656	15	10.19330	9.92125	26	10.07875	10.11469	10	9.88531	10
51	.80671	15	.19314	.92150	25	.07850	.11479	11	.88521	9
52	.80686	15	.19298	.92176	26	.07824	.11490	11	.88510	8
53	.80701	15	.19282	.92202	25	.07798	.11501	10	.88499	7
54	.80716	15	.19266	.92227	26	.07773	.11511	11	.88489	

**TABLE 3**  
Common Logarithms of Trigonometric Functions (offset +10)

40° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 139°	
0	9.80807	15	10.19193	9.92381	26	10.07619	10.11575	10	9.88425	60
1	.80822	15	.19178	.92407	26	.07593	.11585	11	.88415	59
2	.80837	15	.19163	.92433	26	.07567	.11596	11	.88404	58
3	.80852	15	.19148	.92458	26	.07542	.11606	10	.88394	57
4	.80867	15	.19133	.92484	26	.07516	.11617	11	.88383	56
5	9.80882	15	10.19118	9.92510	25	10.07490	10.11628	10	9.88372	55
6	.80897	15	.19103	.92535	26	.07465	.11638	11	.88362	54
7	.80912	15	.19088	.92561	26	.07439	.11649	11	.88351	53
8	.80927	15	.19073	.92587	26	.07413	.11660	11	.88340	52
9	.80942	15	.19058	.92612	26	.07388	.11670	10	.88330	51
10	9.80957	15	10.19103	9.92638	25	10.07362	10.11681	11	9.88319	50
11	.80972	15	.19088	.92663	26	.07337	.11692	10	.88308	49
12	.80987	15	.19073	.92689	26	.07311	.11702	11	.88298	48
13	.81002	15	.18958	.92715	25	.07285	.11713	11	.88287	47
14	.81017	15	.18943	.92740	26	.07260	.11724	10	.88276	46
15	9.81032	15	10.18928	9.92766	26	10.07234	10.11734	11	9.88266	45
16	.81047	14	.18913	.92792	25	.07208	.11745	11	.88255	44
17	.81061	15	.18898	.92817	26	.07183	.11756	10	.88244	43
18	.81076	15	.18883	.92843	25	.07157	.11766	11	.88234	42
19	.81091	15	.18868	.92868	26	.07132	.11777	11	.88223	41
20	9.81106	15	10.18853	9.92894	26	10.07106	10.11788	11	9.88212	40
21	.81121	15	.18838	.92920	25	.07080	.11799	10	.88201	39
22	.81136	15	.18823	.92945	26	.07055	.11809	11	.88191	38
23	.81151	15	.18808	.92971	25	.07029	.11820	11	.88180	37
24	.81166	14	.18793	.92996	26	.07004	.11831	11	.88169	36
25	9.81180	15	10.18820	9.93022	26	10.06978	10.11842	10	9.88158	35
26	.81195	15	.18805	.93048	25	.06952	.11852	11	.88148	34
27	.81210	15	.18790	.93073	26	.06927	.11863	11	.88137	33
28	.81225	15	.18775	.93099	26	.06901	.11874	11	.88126	32
29	.81240	14	.18760	.93124	25	.06876	.11885	11	.88115	31
30	9.81254	15	10.18746	9.93150	26	10.06850	10.11895	11	9.88105	30
31	.81269	15	.18731	.93175	26	.06825	.11906	11	.88094	29
32	.81284	15	.18716	.93201	26	.06799	.11917	11	.88083	28
33	.81299	15	.18701	.93227	25	.06773	.11928	11	.88072	27
34	.81314	14	.18686	.93252	26	.06748	.11939	10	.88061	26
35	9.81328	15	10.18722	9.93278	25	10.06722	10.11949	11	9.88051	25
36	.81343	15	.18657	.93303	26	.06697	.11960	11	.88040	24
37	.81358	14	.18642	.93329	25	.06671	.11971	11	.88029	23
38	.81372	15	.18627	.93354	26	.06646	.11982	11	.88018	22
39	.81387	15	.18613	.93380	26	.06620	.11993	11	.88007	21
40	9.81402	15	10.18598	9.93406	25	10.06594	10.12004	11	9.87996	20
41	.81417	14	.18583	.93431	26	.06569	.12015	10	.87985	19
42	.81431	15	.18569	.93457	25	.06543	.12025	11	.87975	18
43	.81446	15	.18554	.93482	26	.06518	.12036	11	.87964	17
44	.81461	14	.18539	.93508	25	.06492	.12047	11	.87953	16
45	9.81475	15	10.18525	9.93533	26	10.06467	10.12058	11	9.87942	15
46	.81490	15	.18510	.93559	25	.06441	.12069	11	.87931	14
47	.81505	15	.18495	.93584	26	.06416	.12080	11	.87920	13
48	.81519	14	.18481	.93610	26	.06390	.12091	11	.87909	12
49	.81534	15	.18466	.93636	25	.06364	.12102	11	.87898	11
50	9.81549	14	10.18451	9.93661	26	10.06339	10.12113	10	9.87887	10
51	.81563	15	.18437	.93687	25	.06313	.12123	11	.87877	9
52	.81578	14	.18422	.93712	26	.06288	.12134	11	.87866	8
53	.81592	15	.18408	.93738	25	.06262	.12145	11	.87855	7
54	.81607	15	.18393	.93763	26	.06237	.12156	11	.87844	6
55	9.81622	14	10.18378	9.93789	25	10.06211	10.12167	11	9.87833	5
56	.81636	15	.18364	.93814	26	.06186	.12178	11	.87822	4
57	.81651	14	.18349	.93840	25	.06160	.12189	11	.87811	3
58	.81665	15	.18335	.93865	26	.06135	.12200	11	.87800	2
59	.81680	15	.18320	.93891	26	.06109	.12211	11	.87789	1
60	9.81694	14	10.18306	9.93916	25	10.06084	10.12222	11	9.87778	0
↑ 130° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 49°	

**TABLE 3**  
Common Logarithms of Trigonometric Functions (offset +10)

41° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 138°	
0	9.81694	15	10.18306	9.93916	26	10.06084	10.12222	11	9.87778	60
1	.81709	14	.18291	.93942	25	.06058	.12233	11	.87767	59
2	.81723	14	.18277	.93967	25	.06033	.12244	11	.87756	58
3	.81738	15	.18262	.93993	26	.06007	.12255	11	.87745	57
4	.81752	14	.18248	.94018	25	.05982	.12266	11	.87734	56
5	9.81767	14	10.18233	9.94044	26	10.05956	10.12277	11	9.87723	55
6	.81781	15	.18219	.94069	25	.05931	.12288	11	.87712	54
7	.81796	14	.18204	.94095	26	.05905	.12299	11	.87701	53
8	.81810	14	.18190	.94120	25	.05880	.12310	11	.87690	52
9	.81825	15	.18175	.94146	26	.05854	.12321	11	.87679	51
10	9.81839	15	10.18161	9.94171	25	10.05829	10.12332	11	9.87668	50
11	.81854	14	.18146	.94197	25	.05803	.12343	11	.87657	49
12	.81868	15	.18132	.94222	26	.05778	.12354	11	.87646	48
13	.81882	14	.18118	.94248	25	.05752	.12365	11	.87635	47
14	.81897	14	.18103	.94273	26	.05727	.12376	11	.87624	46
15	9.81911	15	10.18089	9.94299	25	10.05701	10.12387	12	9.87613	45
16	.81926	14	.18074	.94324	26	.05676	.12399	11	.87601	44
17	.81940	15	.18060	.94350	26	.05650	.12410	11	.87590	43
18	.81955	14	.18045	.94375	25	.05625	.12421	11	.87579	42
19	.81969	14	.18031	.94401	26	.05599	.12432	11	.87568	41
20	9.81983	15	10.18017	9.94426	25	10.05574	10.12443	11	9.87557	40
21	.81998	14	.18002	.94452	25	.05548	.12454	11	.87546	39
22	.82012	14	.17988	.94477	26	.05523	.12465	11	.87535	38
23	.82026	15	.17974	.94503	25	.05497	.12476	11	.87524	37
24	.82041	14	.17959	.94528	26	.05472	.12487	12	.87513	36
25	9.82055	14	10.17945	9.94554	25	10.05446	10.12499	11	9.87501	35
26	.82069	15	.17931	.94579	25	.05421	.12510	11	.87490	34
27	.82084	15	.17916	.94604	26	.05396	.12521	11	.87479	33
28	.82098	14	.17902	.94630	26	.05370	.12532	11	.87468	32
29	.82112	14	.17888	.94655	25	.05345	.12543	11	.87457	31
30	9.82126	15	10.17874	9.94681	26	10.05319	10.12554	12	9.87446	30
31	.82141	14	.17859	.94706	26	.05294	.12565	11	.87434	29
32	.82155	14	.17845	.94732	26	.05268	.12577	11	.87423	28
33	.82169	15	.17831	.94757	25	.05243	.12588	11	.87412	27
34	.82184	14	.17816	.94783	26	.05217	.12599	11	.87401	26
35	9.82198	14	10.17802	9.94808	25	10.05192	10.12610	12	9.87390	25
36	.82212	14	.17788	.94834	25	.05166	.12622	11	.87378	24
37	.82226	14	.17774	.94859	25	.05141	.12633	11	.87367	23
38	.82240	15	.17760	.94884	26	.05116	.12644	11	.87356	22
39	.82255	14	.17745	.94910	25	.05090	.12655	11	.87345	21
40	9.82269	14	10.17731	9.94935	26	10.05065	10.12666	12	9.87334	20
41	.82283	14	.17717	.94961	25	.05039	.12678	11	.87322	19
42	.82297	14	.17703	.94986	26	.05014	.12689	11	.87311	18
43	.82311	15	.17689	.95012	25	.04988	.12700	11	.87300	17
44	.82326	14	.17674	.95037	25	.04963	.12712	11	.87288	16
45	9.82340	14	10.17660	9.95062	26	10.04938	10.12723	11	9.87277	15
46	.82354	14	.17646	.95088	25	.04912	.12734	11	.87266	14
47	.82368	14	.17632	.95113	26	.04887	.12745	12	.87255	13
48	.82382	14	.17618	.95139	26	.04861	.12757	11	.87243	12
49	.82396	14	.17604	.95164	25	.04836	.12768	11	.87232	11
50	9.82410	14	10.17590	9.95190	26	10.04810	10.12779	12	9.87221	10
51	.82424	15	.17576	.95215	25	.04785	.12791	11	.87209	9
52	.82439	14	.17561	.95240	26	.04760	.12802	11	.87198	8
53	.82453	14	.17547	.95266	25	.04734	.12813	12	.871	

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
42° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 137°	
0	9.82551	14	10.17449	9.95444	25	10.04556	10.12893	11	9.87107	60
1	.82565	14	.17435	.95469	26	.04531	.12904	11	.87096	59
2	.82579	14	.17421	.95495	25	.04505	.12915	11	.87085	58
3	.82593	14	.17407	.95520	25	.04480	.12927	12	.87073	57
4	.82607	14	.17393	.95545	25	.04455	.12938	12	.87062	56
5	9.82621	14	10.17379	9.95571	25	10.04429	10.12950	11	9.87050	55
6	.82635	14	.17365	.95596	26	.04404	.12961	11	.87039	54
7	.82649	14	.17351	.95622	26	.04378	.12972	11	.87028	53
8	.82663	14	.17337	.95647	25	.04353	.12984	12	.87016	52
9	.82677	14	.17323	.95672	25	.04328	.12995	12	.87005	51
10	9.82691	14	10.17309	9.95698	25	10.04302	10.13007	11	9.86993	50
11	.82705	14	.17295	.95723	25	.04277	.13018	12	.86982	49
12	.82719	14	.17281	.95748	26	.04252	.13030	12	.86970	48
13	.82733	14	.17267	.95774	26	.04226	.13041	11	.86959	47
14	.82747	14	.17253	.95799	25	.04201	.13053	12	.86947	46
15	9.82761	14	10.17239	9.95825	25	10.04175	10.13064	12	9.86936	45
16	.82775	13	.17225	.95850	25	.04150	.13076	12	.86924	44
17	.82788	14	.17212	.95875	26	.04125	.13087	11	.86913	43
18	.82802	14	.17198	.95901	26	.04100	.13098	11	.86902	42
19	.82816	14	.17184	.95926	26	.04074	.13110	12	.86890	41
20	9.82830	14	10.17170	9.95952	25	10.04048	10.13121	12	9.86879	40
21	.82844	14	.17156	.95977	25	.04023	.13133	12	.86867	39
22	.82858	14	.17142	.96002	26	.03998	.13145	11	.86855	38
23	.82872	13	.17128	.96028	25	.03972	.13156	12	.86844	37
24	.82885	14	.17115	.96053	25	.03947	.13168	12	.86832	36
25	9.82899	14	10.17101	9.96078	26	10.03922	10.13179	12	9.86821	35
26	.82913	14	.17087	.96104	26	.03896	.13191	11	.86809	34
27	.82927	14	.17073	.96129	25	.03871	.13202	11	.86798	33
28	.82941	14	.17059	.96155	26	.03845	.13214	12	.86786	32
29	.82955	13	.17045	.96180	25	.03820	.13225	11	.86775	31
30	9.82968	14	10.17032	9.96205	26	10.03795	10.13237	12	9.86763	30
31	.82982	14	.17018	.96231	26	.03769	.13248	12	.86752	29
32	.82996	14	.17004	.96256	25	.03744	.13260	12	.86740	28
33	.83010	13	.16990	.96281	25	.03719	.13272	11	.86728	27
34	.83023	14	.16977	.96307	25	.03693	.13283	12	.86717	26
35	9.83037	14	10.16963	9.96332	25	10.03668	10.13295	11	9.86705	25
36	.83051	14	.16949	.96357	26	.03643	.13306	12	.86694	24
37	.83065	13	.16935	.96383	25	.03617	.13318	12	.86682	23
38	.83078	14	.16922	.96408	25	.03592	.13330	11	.86670	22
39	.83092	14	.16908	.96433	26	.03567	.13341	12	.86659	21
40	9.83106	14	10.16894	9.96459	26	10.03541	10.13353	12	9.86647	20
41	.83120	13	.16880	.96484	25	.03516	.13365	11	.86635	19
42	.83133	14	.16867	.96510	25	.03490	.13376	12	.86624	18
43	.83147	14	.16853	.96535	25	.03465	.13388	12	.86612	17
44	.83161	13	.16839	.96560	26	.03440	.13400	11	.86600	16
45	9.83174	14	10.16826	9.96586	25	10.03414	10.13411	12	9.86589	15
46	.83188	14	.16812	.96611	25	.03389	.13423	12	.86577	14
47	.83202	13	.16798	.96636	26	.03364	.13435	11	.86565	13
48	.83215	14	.16785	.96662	25	.03338	.13446	12	.86554	12
49	.83229	13	.16771	.96687	25	.03313	.13458	12	.86542	11
50	9.83242	14	10.16758	9.96712	26	10.03288	10.13470	12	9.86530	10
51	.83256	14	.16744	.96738	26	.03262	.13482	11	.86518	9
52	.83270	13	.16730	.96763	25	.03237	.13493	12	.86507	8
53	.83283	13	.16717	.96788	26	.03212	.13505	12	.86495	7
54	.83297	13	.16703	.96814	25	.03186	.13517	11	.86483	6
55	9.83310	14	10.16690	9.96839	25	10.03161	10.13528	12	9.86472	5
56	.83324	14	.16676	.96864	26	.03136	.13540	12	.86460	4
57	.83338	13	.16662	.96890	25	.03110	.13552	12	.86448	3
58	.83351	14	.16649	.96915	25	.03085	.13564	11	.86436	2
59	.83365	13	.16635	.96940	25	.03060	.13575	11	.86425	1
60	9.83378	13	10.16622	9.96966	26	10.03034	10.13587	12	9.86413	0
↑ 132° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ← 47°	

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)										
43° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ← 136°	
0	9.83378	14	10.16622	9.96966	25	10.03034	10.13587	12	9.86413	60
1	.83392	13	.16608	.96991	25	.03009	.13599	12	.86401	59
2	.83405	14	.16595	.97016	26	.02984	.13611	12	.86389	58
3	.83419	14	.16581	.97042	26	.02958	.13623	12	.86377	57
4	.83432	13	.16568	.97067	25	.02933	.13634	12	.86366	56
5	9.83446	13	10.16554	9.97092	26	10.02908	10.13646	12	9.86354	55
6	.83459	14	.16541	.97118	26	.02882	.13658	12	.86342	54
7	.83473	14	.16527	.97143	25	.02857	.13670	12	.86330	53
8	.83486	13	.16514	.97168	25	.02832	.13682	12	.86318	52
9	.83500	14	.16500	.97193	25	.02807	.13694	11	.86306	51
10	9.83513	14	10.16487	9.97219	25	10.02781	10.13705	12	9.86295	50
11	.83527	14	.16473	.97244	25	.02756	.13717	12	.86283	49
12	.83540	13	.16460	.97269	26	.02731	.13729	12	.86271	48
13	.83554	13	.16446	.97295	26	.02705	.13741	12	.86259	47
14	.83567	14	.16433	.97320	25	.02680	.13753	12	.86247	46
15	9.83581	13	10.16419	9.97345	26	10.02655	10.13765	12	9.86235	45
16	.83594	14	.16406	.97371	26	.02629	.13777	12	.86223	44
17	.83608	13	.16392	.97396	25	.02604	.13789	12	.86211	43
18	.83621	13	.16379	.97421	26	.02579	.13801	11	.86200	42
19	.83634	14	.16366	.97447	26	.02553	.13812	12	.86188	41
20	9.83648	13	10.16352	9.97472	25	10.02528	10.13824	12	9.86176	40
21	.83661	13	.16339	.97497	26	.02503	.13836	12	.86164	39
22	.83674	14	.16326	.97523	26	.02477	.13848	12	.86152	38
23	.83688	13	.16312	.97548	25	.02452	.13860	12	.86140	37
24	.83701	14	.16299	.97573	25	.02427	.13872	12	.86128	36
25	9.83715	13	10.16285	9.97598	26	10.02402	10.13884	12	9.86116	35
26	.83728	13	.16272	.97624	26	.02376	.13896	12	.86104	34
27	.83741	14	.16259	.97649	25	.02351	.13908	12	.86092	33
28	.83754	13	.16246	.97674	25	.02326	.13920	12	.86080	32
29	.83768	13	.16232	.97700	26	.02300	.13932	12	.86068	31
30	9.83781	14	10.16219	9.97725	25	10.02275	10.13944	12	9.86056	30
31	.83795	13	.16205	.97750	26	.02250	.13956	12	.86044	29
32	.83808	13	.16192	.97776	26	.02224	.13968	12	.86032	28
33	.83821	13	.16179	.97801	25	.02199	.13980	12	.86020	27
34	.83834	14	.16166	.97826	25	.02174	.13992	12	.86008	26
35	9.83848	13	10.16152	9.97851	26	10.02149	10.14004	12	9.85996	25
36	.83861	13	.16139	.97877	26	.02123	.14016	12	.85984	24
37	.83874	13	.16126	.97902	25	.02098	.14028	12	.85972	23
38	.83887	14	.16113	.97927	25	.02073	.14040	12	.85960	22
39	.83901	13	.16099	.97953	26	.02047	.14052	12	.85948	21
40	9.83914	13	10.16086	9.97978	26	10.02022	10.14064	12	9.85936	20
41	.83927	13	.16073	.98003	25	.01997	.14076	12	.85924	19
42	.83940	14	.16060	.98029	25	.01971	.14088	12	.85912	18
43	.83954	13	.16046	.98054	25	.01946	.14100	12	.85900	17
44	.83967	13	.16033	.98079	25	.01921	.14112	12	.85888	16
45	9.83980	13	10.16020	9.98104	26	10.01896	10.14124	12	9.85876	15
46	.83993	13	.16007	.98130	26	.01870	.14136	13	.85864	14
47	.84006	14	.15994	.98155	25	.01845	.14148	12	.85851	13
48	.84020	13	.15980	.98180	25	.01820	.14161	12	.85839	12
49	.84033	13	.15967	.98206	26	.01794	.14173	12	.85827	11
50	9.84046	13	10.15954	9.98231	25	10.01769	10.14185	12	9.85815	10
51	.84059	13	.15941	.98256	25	.01744	.14197	12	.85803	9
52	.84072	13	.15928	.98281	26	.01719	.14209	12	.85791	8
53	.84085	13	.15915	.98307	26	.01693	.14221	13	.85779	7
54	.84098	14	.15902	.98332	25	.01668	.14234	12	.85766	

TABLE 3 Common Logarithms of Trigonometric Functions (offset +10)												
44° →	sin	Diff. 1'	csc	tan	Diff. 1'	cot	sec	Diff. 1'	cos ←	135°		
0	9.84177	13	10.15823	9.98484		10.01516	10.14307		9.85693	60		
1	.84190	13	.15810	.98509	25	.01491	.14319	12	.85681	59		
2	.84203	13	.15797	.98534	25	.01466	.14331	12	.85669	58		
3	.84216	13	.15784	.98560	26	.01440	.14343	12	.85657	57		
4	.84229	13	.15771	.98585	25	.01415	.14355	12	.85645	56		
5	9.84242	13	10.15758	9.98610	25	10.01390	10.14368	13	9.85632	55		
6	.84255	14	.15745	.98635	25	.01365	.14380	12	.85620	54		
7	.84269	13	.15731	.98661	26	.01339	.14392	12	.85608	53		
8	.84282	13	.15718	.98686	25	.01314	.14404	12	.85596	52		
9	.84295	13	.15705	.98711	25	.01289	.14417	13	.85583	51		
10	9.84308	13	10.15692	9.98737	26	10.01263	10.14429	12	9.85571	50		
11	.84321	13	.15679	.98762	25	.01238	.14441	12	.85559	49		
12	.84334	13	.15666	.98787	25	.01213	.14453	12	.85547	48		
13	.84347	13	.15653	.98812	25	.01188	.14466	13	.85534	47		
14	.84360	13	.15640	.98838	26	.01162	.14478	12	.85522	46		
15	9.84373	12	10.15627	9.98863	25	10.01137	10.14490	12	9.85510	45		
16	.84385	13	.15615	.98888	25	.01112	.14503	13	.85497	44		
17	.84398	13	.15602	.98913	25	.01087	.14515	12	.85485	43		
18	.84411	13	.15589	.98939	26	.01061	.14527	12	.85473	42		
19	.84424	13	.15576	.98964	25	.01036	.14540	13	.85460	41		
20	9.84437	13	10.15563	9.98989	25	10.01011	10.14552	12	9.85448	40		
21	.84450	13	.15550	.99015	26	.00985	.14564	12	.85436	39		
22	.84463	13	.15537	.99040	25	.00960	.14577	13	.85423	38		
23	.84476	13	.15524	.99065	25	.00935	.14589	12	.85411	37		
24	.84489	13	.15511	.99090	25	.00910	.14601	12	.85399	36		
25	9.84502	13	10.15498	9.99116	26	10.00884	10.14614	13	9.85386	35		
26	.84515	13	.15485	.99141	25	.00859	.14626	12	.85374	34		
27	.84528	12	.15472	.99166	25	.00834	.14639	13	.85361	33		
28	.84540	13	.15460	.99191	25	.00809	.14651	12	.85349	32		
29	.84553	13	.15447	.99217	26	.00783	.14663	12	.85337	31		
30	9.84566	13	10.15434	9.99242	25	10.00758	10.14676	13	9.85324	30		
31	.84579	13	.15421	.99267	25	.00733	.14688	12	.85312	29		
32	.84592	13	.15408	.99293	26	.00707	.14701	13	.85299	28		
33	.84605	13	.15395	.99318	25	.00682	.14713	12	.85287	27		
34	.84618	12	.15382	.99343	25	.00657	.14726	13	.85274	26		
35	9.84630	13	10.15370	9.99368	25	10.00632	10.14738	12	9.85262	25		
36	.84643	13	.15357	.99394	26	.00606	.14750	12	.85250	24		
37	.84656	13	.15344	.99419	25	.00581	.14763	13	.85237	23		
38	.84669	13	.15331	.99444	25	.00556	.14775	12	.85225	22		
39	.84682	12	.15318	.99469	25	.00531	.14788	13	.85212	21		
40	9.84694	13	10.15306	9.99495	26	10.00505	10.14800	12	9.85200	20		
41	.84707	13	.15293	.99520	25	.00480	.14813	13	.85187	19		
42	.84720	13	.15280	.99545	25	.00455	.14825	12	.85175	18		
43	.84733	12	.15267	.99570	25	.00430	.14838	13	.85162	17		
44	.84745	13	.15255	.99596	26	.00404	.14850	12	.85150	16		
45	9.84758	13	10.15242	9.99621	25	10.00379	10.14863	13	9.85137	15		
46	.84771	13	.15229	.99646	25	.00354	.14875	12	.85125	14		
47	.84784	12	.15216	.99672	26	.00328	.14888	13	.85112	13		
48	.84796	13	.15204	.99697	25	.00303	.14900	12	.85100	12		
49	.84809	13	.15191	.99722	25	.00278	.14913	13	.85087	11		
50	9.84822	13	10.15178	9.99747	26	10.00253	10.14926	12	9.85074	10		
51	.84835	12	.15165	.99773	25	.00227	.14938	13	.85062	9		
52	.84847	13	.15153	.99798	25	.00202	.14951	12	.85049	8		
53	.84860	13	.15140	.99823	25	.00177	.14963	13	.85037	7		
54	.84873	12	.15127	.99848	25	.00152	.14976	12	.85024	6		
55	9.84885	13	10.15115	9.99874	26	10.00126	10.14988	13	9.85012	5		
56	.84898	13	.15102	.99899	25	.00101	.15001	12	.84999	4		
57	.84911	12	.15089	.99924	25	.00076	.15014	13	.84986	3		
58	.84923	13	.15077	.99949	25	.00051	.15026	12	.84974	2		
59	.84936	13	.15064	.99975	26	.00025	.15039	13	.84961	1		
60	9.84949		10.15051	10.00000	25	10.00000	10.15051	12	9.84949	0		
↑	134° →	cos	Diff. 1'	sec	cot	Diff. 1'	tan	csc	Diff. 1'	sin ←	↑	45°



TABLE 4															
359°   001°			Traverse 1° Table									359°   001°			
181°   179°												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°		181°   179°		89°		Dist.		D. Lat.		Dep.		271°   089°		181°   179°	
269°   091°						N.		N x Cos.		N x Sin.		269°   091°			
						Hypotenuse		Side Adj.		Side Opp.					

TABLE 4														
359°   001°			Traverse 1° Table									359°   001°		
181°   179°												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											

TABLE 4																			
358° 182°			002° 178°			Traverse 2° Table						358° 182°			002° 178°				
Dist.	D. Lat.	Dep.	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°													272°		088°		
268°		092°													268°		092°		
<b>88°</b>				Dist.		D. Lat.		Dep.		<b>88°</b>				Dist.		D. Lat.		Dep.	
				N.		N x Cos.		N x Sin.						Dist.		D. Lat.		Dep.	
				Hypotenuse		Side Adj.		Side Opp.						m		D Lo			

TABLE 4																	
358° 182°			002° 178°			Traverse 2° Table						358° 182°			002° 178°		
Dist.	D. Lat.	Dep.	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																

TABLE 4																	
357°		003°		Traverse 3° Table										357°		003°	
183°		177°												183°		177°	
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°												273°		087°	
267°		093°												267°		093°	
<b>87°</b>																	
			Dist.			D. Lat.			Dep.								
			N.			N x Cos.			N x Sin.								
			Hypotenuse			Side Adj.			Side Opp.								

TABLE 4																	
357°		003°		Traverse 3° Table										357°		003°	
183°		177°												183°		177°	
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	44										

TABLE 4																		
356°			004°			4°						356°			004°			
184°			176°			Traverse						184°			176°			
Dist.	D. Lat.	Dep.	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	266.4	18.6				
28	27.9	2.0	88	87.8	6.1	48	147.6	10.3	08	207.5	14.5	68	267.4	18.7				
29	28.9	2.0	89	88.8	6.2	49	148.6	10.4	09	208.5	14.6	69	268.4	18.8				
30	29.9	2.1	90	89.8	6.3	50	149.6	10.5	10	209.5	14.6	70	269.4	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°		086°													274°		086°	
266°		094°													266°		094°	
				<b>86°</b>														
				Dist.			D. Lat.			Dep.								
				N.			N x Cos.			N x Sin.								
				Hypotenuse			Side Adj.			Side Opp.								

TABLE 4																	
356°			004°			4°						356°			004°		
184°			176°			Traverse						184°			176°		
Dist.	D. Lat.	Dep.	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						

TABLE 4																	
355°		005°		Traverse 5° Table										355°		005°	
185°		175°												185°		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°		085°												275°		085°	
265°		095°												265°		095°	
<b>85°</b>																	
			Dist.			D. Lat.			Dep.								
			N.			N x Cos.			N x Sin.								
			Hypotenuse			Side Adj.			Side Opp.								

TABLE 4																	
355°		005°		Traverse 5° Table										355°		005°	
185°		175°												185°		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				

TABLE 4																						
354°		006°		Traverse									354°		006°							
186°		174°		6°									186°		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	136.3	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°		084°		84°									Dist.		D. Lat.		Dep.					
264°		096°											N.		N x Cos.		N x Sin.		D Lo		Dep.	
													Hypotenuse		Side Adj.		Side Opp.		m		D Lo	

TABLE 4																
354°		006°		Traverse									354°		006°	
186°		174°		6°									186°		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	51.9	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														

TABLE 4															
353°   007°			Traverse 7° Table									353°   007°			
187°   173°												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.			277°   083°		
							Hypotenuse Side Adj. Side Opp.						263°   097°		

TABLE 4														
353°   007°			Traverse 7° Table									353°   007°		
187°   173°												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				

TABLE 4																						
352°		008°		Traverse									352°		008°							
188°		172°		8°									188°		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°		082°		82°									278°		082°							
262°		098°											Dist.		D. Lat.		Dep.		262°		098°	
													N.		N x Cos.		N x Sin.					
				Hypotenuse		Side Adj.		Side Opp.														

TABLE 4																
352°		008°		Traverse									352°		008°	
188°		172°		8°									188°		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.								





TABLE 4																						
350°		010°		Traverse									350°		010°							
190°		170°		Table									190°		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°		080°		80°									280°		080°							
260°		100°											Dist.		D. Lat.		Dep.		260°		100°	
													N.		N x Cos.		N x Sin.					
				Hypotenuse		Side Adj.		Side Opp.														

TABLE 4																
350°		010°		Traverse									350°		010°	
190°		170°		Table									190°		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	43									

TABLE 4																						
349°		011°		Traverse									349°		011°							
191°		169°		11°									191°		169°							
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°		79°									281°		079°							
259°		101°											Dist.		D. Lat.		Dep.		259°		101°	
D Lo		Dep.											N.		N x Cos.		N x Sin.		m		D Lo	
Hypotenuse		Side Adj.		Side Opp.																		

TABLE 4																
349°		011°		Traverse									349°		011°	
191°		169°		11°									191°		169°	
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	6				

TABLE 4																								
348°		012°		Traverse											348°		012°							
192°		168°		Table											192°		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	122	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.										
282°		078°		78°											282°		078°							
258°		102°													Dist.		D. Lat.		Dep.		258°		102°	
															N.		N x Cos.		N x Sin.					
				Hypotenuse		Side Adj.		Side Opp.																

TABLE 4																		
348°		012°		Traverse											348°		012°	
192°		168°		Table											192°		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													

TABLE 4																												
347°		013°		Traverse										347°		013°												
193°		167°		Table										193°		167°												
Dist.	D. Lat.	Dep.	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.	Dist.	Dep.	D. Lat.											
283°		077°												283°		077°												
257°		103°												257°		103°												
										Dist.			D. Lat.			Dep.												
										N.			N x Cos.			N x Sin.												
										Hypotenuse			Side Adj.			Side Opp.												

77°

TABLE 4																					
347°		013°		Traverse														347°		013°	
193°		167°		Table														193°		167°	
Dist.	D. Lat.	Dep.	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	84.3	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																		

TABLE 4																		
346°		014°		Traverse											346°		014°	
194°		166°		Table											194°		166°	
Dist.	D. Lat.	Dep.	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.	Dist.	Dep.	D. Lat.	
284°		076°													284°		076°	
256°		104°													256°		104°	
			<b>76°</b>			Dist.			D. Lat.			Dep.						
						N.			N x Cos.			N x Sin.						
						Hypotenuse			Side Adj.			Side Opp.						

TABLE 4																		
346°		014°		Traverse											346°		014°	
194°		166°		Table											194°		166°	
Dist.	D. Lat.	Dep.	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										

TABLE 4																																					
345°		015°		Traverse										345°		015°																					
195°		165°		Table										195°		165°																					
Dist.	D. Lat.	Dep.	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	257.0	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.	Dist.	Dep.	D. Lat.																				
285°		075°												285°		075°																					
255°		105°												255°		105°																					
										75°													75°														
										Dist.			D. Lat.			Dep.													Dist.			D. Lat.			Dep.		
										N.			N x Cos.			N x Sin.													m			D Lo					
										Hypotenuse			Side Adj.			Side Opp.																					

TABLE 4																	
345°		015°		Traverse										345°		015°	
195°		165°		Table										195°		165°	
Dist.	D. Lat.	Dep.	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	4							

TABLE 4																		
344°		016°		Traverse 16° Table											344°		016°	
196°		164°													196°		164°	
Dist.	D. Lat.	Dep.	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.	Dist.	Dep.	D. Lat.	
286°		074°													286°		074°	
254°		106°													254°		106°	
			<b>74°</b>			Dist.			D. Lat.			Dep.						
						N.			N x Cos.			N x Sin.						
						Hypotenuse			Side Adj.			Side Opp.						

TABLE 4																					
344°		016°		Traverse 16° Table														344°		016°	
196°		164°																196°		164°	
Dist.	D. Lat.	Dep.	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																



TABLE 4																	
343° 197°			017° 163°			Traverse 17° Table						343° 197°			017° 163°		
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.			
287°		073°															
253°		107°															
<b>73°</b>				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						343° 197°			017° 163°		
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	417.0	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	425.5	130.1	05	48							



TABLE 4																	
341°		019°		Traverse									341°		019°		
199°		161°		Table									199°		161°		
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	146.5	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°		071°											289°		071°		
251°		109°											251°		109°		
			71°												71°		
			Dist.			D. Lat.			Dep.						Dist.		
			N.			N x Cos.			N x Sin.						Dist.		
			Hypotenuse			Side Adj.			Side Opp.						Dist.		

TABLE 4																
341°		019°		Traverse									341°		019°	
199°		161°		Table									199°		161°	
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															

TABLE 4														
340°   020°			Traverse 20° Table									340°   020°		
200°   160°												200°   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°   070°			70°									290°   070°		
250°   110°												250°   110°		
			Dist.			D. Lat.			Dep.					
			N.			N x Cos.			N x Sin.					
			Hypotenuse			Side Adj.			Side Opp.					

TABLE 4														
340°   020°			Traverse 20° Table									340°   020°		
200°   160°												200°   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										

TABLE 4														
339°   021°			Traverse 21° Table									339°   021°		
201°   159°												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	146.5	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°			69°									291°   069°		
249°   111°												249°   111°		
			Dist.			D. Lat.			Dep.					
			N.			N x Cos.			N x Sin.					
			Hypotenuse			Side Adj.			Side Opp.					

TABLE 4														
339°   021°			Traverse 21° Table									339°   021°		
201°   159°												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	47				

TABLE 4																									
338°		022°		Traverse											338°		022°								
202°		158°		Table											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°		<table border="1"> <tr><td>Dist.</td><td>D. Lat.</td><td>Dep.</td></tr> <tr><td>N.</td><td>N x Cos.</td><td>N x Sin.</td></tr> <tr><td>Hypotenuse</td><td>Side Adj.</td><td>Side Opp.</td></tr> </table>											Dist.	D. Lat.	Dep.	N.	N x Cos.	N x Sin.	Hypotenuse	Side Adj.	Side Opp.	68°	
Dist.	D. Lat.	Dep.																							
N.	N x Cos.	N x Sin.																							
Hypotenuse	Side Adj.	Side Opp.																							
248°		112°		68°																					

TABLE 4																		
338°		022°		Traverse											338°		022°	
202°		158°		Table											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	458.9	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				
2																		

TABLE 4															
337°   023°			Traverse 23° Table											337°   023°	
203°   157°														203°   157°	
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.											

TABLE 4															
337°   023°			Traverse 23° Table											337°   023°	
203°   157°														203°   157°	
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					

TABLE 4																		
336°		024°		Traverse											336°		024°	
204°		156°		Table											204°		156°	
Dist.	D. Lat.	Dep.	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	75.6	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.	Dist.	Dep.	D. Lat.	
294°		066°													294°		066°	
246°		114°													246°		114°	
			<b>66°</b>															
			Dist.			D. Lat.			Dep.									
			N.			N x Cos.			N x Sin.									
			Hypotenuse			Side Adj.			Side Opp.									

TABLE 4																		
336°		024°		Traverse											336°		024°	
204°		156°		Table											204°		156°	
Dist.	D. Lat.	Dep.	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</										



TABLE 4															
335°   025°			Traverse 25° Table									335°   025°			
205°   155°												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°			Traverse 25° Table									335°   025°		
205°   155°												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	153.3	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	495.7	231.1
08	279.1	130.2	68	333.5	155.5	28	387.9	180.9	88	442.3	206.2	48	496.6	231.6
09	280.0	130.6	69	334.4	155.9	29	388.8	181.3	89	443.2	206.6	49	497.5	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	294.5	137.4	85	348.9	162.7	45	403.3	188.1	05	457.7	213.4	65	512.1	238.8
26	295.4	137.8	86	349.8	163.1	4								

TABLE 4																	
334°   026°			Traverse 26° Table									334°   026°					
206°   154°												206°   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°   064°		244°   116°		64°		Dist.		D. Lat.		Dep.		Dist.		D. Lat.		Dep.	
						N.		N x Cos.		N x Sin.							
						Hypotenuse		Side Adj.		Side Opp.							

TABLE 4														
334°   026°			Traverse 26° Table									334°   026°		
206°   154°												206°   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	45				

TABLE 4														
333°   027°			Traverse 27° Table									333°   027°		
207°   153°												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°			63°									297°   063°		
243°   117°												243°   117°		
			Dist.			D. Lat.			Dep.					
			N.			N x Cos.			N x Sin.					
			Hypotenuse			Side Adj.			Side Opp.					

TABLE 4														
333°   027°			Traverse 27° Table									333°   027°		
207°   153°												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	342.2	174.3	44	395.6	201.6	04	449.1	228.8	64	502.5	256.1
25	289.6	147.5	85											

TABLE 4																					
332°		028°		Traverse									332°		028°						
208°		152°		Table									208°		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°		062°		<p style="text-align: center;"><b>62°</b></p> <table border="1" style="margin: auto;"> <tr> <th>Dist.</th> <th>D. Lat.</th> <th>Dep.</th> </tr> <tr> <td>N.</td> <td>N x Cos.</td> <td>N x Sin.</td> </tr> <tr> <td>Hypotenuse</td> <td>Side Adj.</td> <td>Side Opp.</td> </tr> </table>									Dist.	D. Lat.	Dep.	N.	N x Cos.	N x Sin.	Hypotenuse	Side Adj.	Side Opp.
Dist.	D. Lat.	Dep.																			
N.	N x Cos.	N x Sin.																			
Hypotenuse	Side Adj.	Side Opp.																			
242°		118°																			

TABLE 4																
332°		028°		Traverse									332°		028°	
208°		152°		Table									208°		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											

TABLE 4																	
331°   029°			Traverse									331°   029°					
209°   151°			29°									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	200	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°			Traverse									331°   029°		
209°   151°			29°									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	433.0	240.0	55	485.4	269.1
16	276.4	153.2	76	328.9	182.3	36	381.3	211.4	96	433.9	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						

TABLE 4																						
330°		030°		Traverse									330°		030°							
210°		150°		Table									210°		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°		060°		60°									300°		060°							
240°		120°											Dist.		D. Lat.		Dep.		300°		060°	
													N.		N x Cos.		N x Sin.		240°		120°	
				Hypotenuse		Side Adj.		Side Opp.														

TABLE 4																
330°		030°		Traverse									330°		030°	
210°		150°		Table									210°		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							

TABLE 4																	
329° 211°			031° 149°			Traverse 31° Table						329° 211°		031° 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° 239°			059° 121°			59°			Dist. N.			D. Lat. N x Cos.			Dep. N x Sin.		
									Hypotenuse			Side Adj.			Side Opp.		

TABLE 4															
329° 211°			031° 149°			Traverse 31° Table						329° 211°		031° 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						

TABLE 4																		
328°		032°		Traverse											328°		032°	
212°		148°		Table											212°		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°		058°		58°														
238°		122°																
Dist.		D. Lat.													Dep.			
N.		N x Cos.		N x Sin.														
Hypotenuse		Side Adj.		Side Opp.														

TABLE 4																		
328°		032°		Traverse											328°		032°	
212°		148°		Table											212°		148°	
Dist.	D. Lat.	Dep.	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																



TABLE 4																	
327° 213°			033° 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° 237°			057° 123°			57°			Dist.			D. Lat.			Dep.		
									N.			N x Cos.			N x Sin.		
									Hypotenuse			Side Adj.			Side Opp.		

TABLE 4														
327° 213°			033° 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									

TABLE 4																															
326°		034°		Traverse									34°		Table		326°		034°												
214°		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°		056°		56°									Dist.			D. Lat.			Dep.			304°		056°							
236°		124°											N.			N x Cos.			N x Sin.			D Lo		Dep.		D Lo		236°		124°	
													Hypotenuse			Side Adj.			Side Opp.												

TABLE 4																				
326°		034°		Traverse									34°		Table		326°		034°	
214°		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											

TABLE 4																	
325°			035°			Traverse						325°		035°			
215°			145°			35°						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°			55°						305°		055°			
235°			125°									235°		125°			
												Dist.		D. Lat.		Dep.	
												N.		N x Cos.		N x Sin.	
												Hypotenuse		Side Adj.		Side Opp.	

TABLE 4															
325°			035°			Traverse						325°		035°	
215°			145°			35°						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	179.7	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															

TABLE 4																		
324°		036°		Traverse Table									324°		036°			
216°		144°		36°									216°		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°		054°		54°									Dist.		D. Lat.		Dep.	
234°		126°											N.		N x Cos.		N x Sin.	
													Hypotenuse		Side Adj.		Side Opp.	

TABLE 4																
324°		036°		Traverse Table									324°		036°	
216°		144°		36°									216°		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													

TABLE 4																			
323°		037°		Traverse										323°		037°			
217°		143°		37°										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	110.4	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°		53°										Dist.		D. Lat.		Dep.	
233°		127°												N.		N x Cos.		N x Sin.	
														Hypotenuse		Side Adj.		Side Opp.	

TABLE 4																	
323°		037°		Traverse										323°		037°	
217°		143°		37°										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						

TABLE 4																													
322°		038°		Traverse Table											322°		038°												
218°		142°													218°		142°												
Dist.	D. Lat.	Dep.	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	227.0	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.															
308°		052°													308°		052°												
232°		128°													232°		128°												
<b>52°</b>															<table border="1"> <tr><td>Dist.</td><td>D. Lat.</td><td>Dep.</td></tr> <tr><td>N.</td><td>N x Cos.</td><td>N x Sin.</td></tr> <tr><td>Hypotenuse</td><td>Side Adj.</td><td>Side Opp.</td></tr> </table>			Dist.	D. Lat.	Dep.	N.	N x Cos.	N x Sin.	Hypotenuse	Side Adj.	Side Opp.			
Dist.	D. Lat.	Dep.																											
N.	N x Cos.	N x Sin.																											
Hypotenuse	Side Adj.	Side Opp.																											

TABLE 4																		
322°		038°		Traverse Table											322°		038°	
218°		142°													218°		142°	
Dist.	D. Lat.	Dep.	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																	

TABLE 4																	
321°   039°			Traverse			39°			Table			321°   039°					
219°   141°									219°   141°								
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°   051°			231°   129°			51°			Dist.			D. Lat.			Dep.		
									N.			N x Cos.			N x Sin.		
									Hypotenuse			Side Adj.			Side Opp.		

TABLE 4														
321°   039°			Traverse			39°			Table			321°   039°		
219°   141°									219°   141°					
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	

TABLE 4																		
320° 220°			040° 140°			Traverse 40° 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.	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																	
320° 220°			040° 140°			Traverse 40° 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.	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	235.2	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			



TABLE 4															
319°   041°			Traverse 41° Table									319°   041°			
221°   139°												221°   139°			
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°													
				Dist.			D. Lat.			Dep.					
				N.			N x Cos.			N x Sin.					
				Hypotenuse			Side Adj.			Side Opp.					

49°

TABLE 4														
319°   041°			Traverse 41° Table									319°   041°		
221°   139°												221°   139°		
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.				

TABLE 4																		
318°		042°		Traverse											318°		042°	
222°		138°		Table											222°		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°		048°													312°		048°	
228°		132°													228°		132°	
Dist.			D. Lat.			Dep.			Dist.			D. Lat.			Dep.			
N.			N x Cos.			N x Sin.			Hypotenuse			Side Adj.			Side Opp.			

TABLE 4																		
318°		042°		Traverse											318°		042°	
222°		138°		Table											222°		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</									

TABLE 4																
317°   043°			043°   317°			Traverse			43°			Table				
223°   137°		137°   223°		317°   043°		043°   317°		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°   227°		047°   133°		47°			Dist. D. Lat. Dep.			Dist. D. Lat. Dep.			313°   047°		227°   133°	
D Lo		Dep.		N. N x Cos. N x Sin.			Hypotenuse Side Adj. Side Opp.			D Lo		Dep.		m D Lo		

TABLE 4														
317°   043°			043°   317°			Traverse			43°			Table		
223°   137°		137°   223°		317°   043°		043°   317°		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	289.9	85	354.7	330.8	45	398.6	371.7
06	223.8	208.7	66	267.6	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	332.2	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

TABLE 4																											
316°		044°		Traverse											316°		044°										
224°		136°		Table											224°		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°		046°		<table border="1"> <tr> <th>Dist.</th> <th>D. Lat.</th> <th>Dep.</th> </tr> <tr> <td>N.</td> <td>N x Cos.</td> <td>N x Sin.</td> </tr> <tr> <td>Hypotenuse</td> <td>Side Adj.</td> <td>Side Opp.</td> </tr> </table>											Dist.	D. Lat.	Dep.	N.	N x Cos.	N x Sin.	Hypotenuse	Side Adj.	Side Opp.	314°		046°	
Dist.	D. Lat.	Dep.																									
N.	N x Cos.	N x Sin.																									
Hypotenuse	Side Adj.	Side Opp.																									
226°		134°		226°		134°																					

TABLE 4																		
316°		044°		Traverse											316°		044°	
224°		136°		Table											224°		136°	
Dist.	D. Lat.	Dep.	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	251.2	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						

TABLE 4																				
315° 225°			045° 135°			Traverse 45° Table						315° 225°			045° 135°					
Dist.	D. Lat.	Dep.	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° 225°			045° 135°			45°						Dist.			D. Lat.			Dep.		
						N.						N x Cos.			N x Sin.					
						Hypotenuse						Side Adj.			Side Opp.					

TABLE 4																	
315° 225°			045° 135°			Traverse 45° Table						315° 225°			045° 135°		
Dist.	D. Lat.	Dep.	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	393.1	393.1			
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											

TABLE 5 Natural and Numerical Chart Scales					
Natural Scale	Miles Per Inch		Inches Per Mile		Feet Per Inch
	Nautical	Statute	Nautical	Statute	
1:500	0.007	0.008	145.83	126.72	41.67
1:600	0.008	0.009	121.52	105.60	50.00
1:1,000	0.014	0.016	72.91	63.36	83.33
1:1,200	0.016	0.019	60.76	52.80	100.00
1:1,500	0.021	0.024	48.61	42.24	125.00
1:2,000	0.027	0.032	36.46	31.68	166.67
1:2,400	0.033	0.038	30.38	26.40	200.00
1:2,500	0.034	0.039	29.17	25.34	208.33
1:3,000	0.041	0.047	24.30	21.12	250.00
1:3,600	0.049	0.057	20.25	17.60	300.00
1:4,000	0.055	0.063	18.23	15.84	333.33
1:4,800	0.066	0.076	15.19	13.20	400.00
1:5,000	0.069	0.079	14.58	12.67	416.67
1:6,000	0.082	0.095	12.15	10.56	500.00
1:7,000	0.096	0.110	10.42	9.05	583.33
1:7,200	0.099	0.114	10.13	8.80	600.00
1:7,920	0.109	0.125	9.21	8.00	660.00
1:8,000	0.110	0.126	9.11	7.92	666.67
1:8,400	0.115	0.133	8.68	7.54	700.00
1:9,000	0.123	0.142	8.10	7.04	750.00
1:9,600	0.132	0.152	7.60	6.60	800.00
1:10,000	0.137	0.158	7.29	6.34	833.33
1:10,800	0.148	0.170	6.75	5.87	900.00
1:12,000	0.165	0.189	6.08	5.28	1,000.00
1:13,200	0.181	0.208	5.52	4.80	1,100.00
1:14,400	0.197	0.227	5.06	4.40	1,200.00
1:15,000	0.206	0.237	4.86	4.22	1,250.00
1:15,600	0.214	0.246	4.67	4.06	1,300.00
1:15,840	0.217	0.250	4.60	4.00	1,320.00
1:16,000	0.219	0.253	4.56	3.96	1,333.33
1:16,800	0.230	0.265	4.34	3.77	1,400.00
1:18,000	0.247	0.284	4.05	3.52	1,500.00
1:19,200	0.263	0.303	3.80	3.30	1,600.00
1:20,000	0.274	0.316	3.65	3.17	1,666.67
1:20,400	0.280	0.322	3.57	3.11	1,700.00
1:21,120	0.290	0.333	3.45	3.00	1,760.00
1:21,600	0.296	0.341	3.38	2.93	1,800.00
1:22,800	0.313	0.360	3.20	2.78	1,900.00
1:24,000	0.329	0.379	3.04	2.64	2,000.00
1:25,000	0.343	0.395	2.92	2.53	2,083.33
1:40,000	0.549	0.631	1.82	1.58	3,333.33
1:48,000	0.658	0.758	1.52	1.32	4,000.00
1:50,000	0.686	0.789	1.46	1.27	4,166.67
1:62,500	0.857	0.986	1.17	1.01	5,208.33
1:63,360	0.869	1.000	1.15	1.00	5,280.00
1:75,000	1.029	1.184	0.97	0.85	6,250.00
1:80,000	1.097	1.263	0.91	0.79	6,666.67
1:100,000	1.371	1.578	0.73	0.63	8,333.33
1:125,000	1.714	1.973	0.58	0.51	10,416.67
1:200,000	2.743	3.157	0.36	0.32	16,666.67
1:250,000	3.429	3.946	0.29	0.25	20,833.33
1:400,000	5.486	6.313	0.18	0.16	33,333.33
1:500,000	6.857	7.891	0.15	0.13	41,666.67
1:750,000	10.286	11.837	0.10	0.08	62,500.00
1:1,000,000	13.715	15.783	0.07	0.06	83,333.33
FORMULAS	$\frac{\text{SCALE}}{72,913.39}$	$\frac{\text{SCALE}}{63,360}$	$\frac{72,913.39}{\text{SCALE}}$	$\frac{63,360}{\text{SCALE}}$	$\frac{\text{SCALE}}{12}$