

Deg - Rad
 $\text{Rad} = \text{Deg} \times \pi / 180^\circ$

Minute	0°	1°	2°	3°	4°	5°
	Radian	Radian	Radian	Radian	Radian	Radian
0	0	0,01745329	0,03490659	0,05235988	0,06981317	0,08726646
1	0,00029089	0,01774418	0,03519747	0,05265077	0,07010406	0,08755735
2	0,00058178	0,01803507	0,03548836	0,05294165	0,07039495	0,08784824
3	0,00087266	0,01832596	0,03577925	0,05323254	0,07068583	0,08813913
4	0,00116355	0,01861685	0,03607014	0,05352343	0,07097672	0,08843002
5	0,00145444	0,01890773	0,03636103	0,05381432	0,07126761	0,0887209
6	0,00174533	0,01919862	0,03665191	0,05410521	0,0715585	0,08901179
7	0,00203622	0,01948951	0,0369428	0,0543961	0,07184939	0,08930268
8	0,00232711	0,0197804	0,03723369	0,05468698	0,07214028	0,08959357
9	0,00261799	0,02007129	0,03752458	0,05497787	0,07243116	0,08988446
10	0,00290888	0,02036217	0,03781547	0,05526876	0,07272205	0,09017534
11	0,00319977	0,02065306	0,03810636	0,05555965	0,07301294	0,09046623
12	0,00349066	0,02094395	0,03839724	0,05585054	0,07330383	0,09075712
13	0,00378155	0,02123484	0,03868813	0,05614142	0,07359472	0,09104801
14	0,00407243	0,02152573	0,03897902	0,05643231	0,07388561	0,0913389
15	0,00436332	0,02181662	0,03926991	0,0567232	0,07417649	0,09162979
16	0,00465421	0,0221075	0,0395608	0,05701409	0,07446738	0,09192067
17	0,0049451	0,02239839	0,03985168	0,05730498	0,07475827	0,09221156
18	0,00523599	0,02268928	0,04014257	0,05759587	0,07504916	0,09250245
19	0,00552688	0,02298017	0,04043346	0,05788675	0,07534005	0,09279334
20	0,00581776	0,02327106	0,04072435	0,05817764	0,07563093	0,09308423
21	0,00610865	0,02356194	0,04101524	0,05846853	0,07592182	0,09337511
22	0,00639954	0,02385283	0,04130613	0,05875942	0,07621271	0,093666
23	0,00669043	0,02414372	0,04159701	0,05905031	0,0765036	0,09395689
24	0,00698132	0,02443461	0,0418879	0,05934119	0,07679449	0,09424778
25	0,00727221	0,0247255	0,04217879	0,05963208	0,07708538	0,09453867
26	0,00756309	0,02501639	0,04246968	0,05992297	0,07737626	0,09482956
27	0,00785398	0,02530727	0,04276057	0,06021386	0,07766715	0,09512044
28	0,00814487	0,02559816	0,04305145	0,06050475	0,07795804	0,09541133
29	0,00843576	0,02588905	0,04334234	0,06079564	0,07824893	0,09570222
30	0,00872665	0,02617994	0,04363323	0,06108652	0,07853982	0,09599311
31	0,00901753	0,02647083	0,04392412	0,06137741	0,0788307	0,096284
32	0,00930842	0,02676172	0,04421501	0,0616683	0,07912159	0,09657489
33	0,00959931	0,0270526	0,0445059	0,06195919	0,07941248	0,09686577
34	0,0098902	0,02734349	0,04479678	0,06225008	0,07970337	0,09715666
35	0,01018109	0,02763438	0,04508767	0,06254096	0,07999426	0,09744755
36	0,01047198	0,02792527	0,04537856	0,06283185	0,08028515	0,09773844
37	0,01076286	0,02821616	0,04566945	0,06312274	0,08057603	0,09802933
38	0,01105375	0,02850704	0,04596034	0,06341363	0,08086692	0,09832021
39	0,01134464	0,02879793	0,04625123	0,06370452	0,08115781	0,0986111
40	0,01163553	0,02908882	0,04654211	0,06399541	0,0814487	0,09890199
41	0,01192642	0,02937971	0,046833	0,06428629	0,08173959	0,09919288
42	0,0122173	0,0296706	0,04712389	0,06457718	0,08203047	0,09948377
43	0,01250819	0,02996149	0,04741478	0,06486807	0,08232136	0,09977466
44	0,01279908	0,03025237	0,04770567	0,06515896	0,08261225	0,10006554
45	0,01308997	0,03054326	0,04799655	0,06544985	0,08290314	0,10035643
46	0,01338086	0,03083415	0,04828744	0,06574074	0,08319403	0,10064732
47	0,01367175	0,03112504	0,04857833	0,06603162	0,08348492	0,10093821
48	0,01396263	0,03141593	0,04886922	0,06632251	0,0837758	0,1012291
49	0,01425352	0,03170681	0,04916011	0,0666134	0,08406669	0,10151998
50	0,01454441	0,0319977	0,049451	0,06690429	0,08435758	0,10181087
51	0,0148353	0,03228859	0,04974188	0,06719518	0,08464847	0,10210176
52	0,01512619	0,03257948	0,05003277	0,06748606	0,08493936	0,10239265
53	0,01541708	0,03287037	0,05032366	0,06777695	0,08523025	0,10268354
54	0,01570796	0,03316126	0,05061455	0,06806784	0,08552113	0,10297443
55	0,01599885	0,03345214	0,05090544	0,06835873	0,08581202	0,10326531
56	0,01628974	0,03374303	0,05119632	0,06864962	0,08610291	0,1035562
57	0,01658063	0,03403392	0,05148721	0,06894051	0,0863938	0,10384709
58	0,01687152	0,03432481	0,0517781	0,06923139	0,08668469	0,10413798
59	0,0171624	0,0346157	0,05206899	0,06952228	0,08697557	0,10442887
60	0,01745329	0,03490659	0,05235988	0,06981317	0,08726646	0,10471976

	6°	7°	8°	9°	10°	11°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	0,10471976	0,12217305	0,13962634	0,15707963	0,17453293	0,19198622
1	0,10501064	0,12246394	0,13991723	0,15737052	0,17482381	0,19227711
2	0,10530153	0,12275482	0,14020812	0,15766141	0,1751147	0,19256799
3	0,10559242	0,12304571	0,140499	0,1579523	0,17540559	0,19285888
4	0,10588331	0,1233366	0,14078989	0,15824319	0,17569648	0,19314977
5	0,1061742	0,12362749	0,14108078	0,15853407	0,17598737	0,19344066
6	0,10646508	0,12391838	0,14137167	0,15882496	0,17627825	0,19373155
7	0,10675597	0,12420927	0,14166256	0,15911585	0,17656914	0,19402244
8	0,10704686	0,12450015	0,14195345	0,15940674	0,17686003	0,19431332
9	0,10733775	0,12479104	0,14224433	0,15969763	0,17715092	0,19460421
10	0,10762864	0,12508193	0,14253522	0,15998851	0,17744181	0,1948951
11	0,10791953	0,12537282	0,14282611	0,1602794	0,1777327	0,19518599
12	0,10821041	0,12566371	0,143117	0,16057029	0,17802358	0,19547688
13	0,1085013	0,12595459	0,14340789	0,16086118	0,17831447	0,19576776
14	0,10879219	0,12624548	0,14369878	0,16115207	0,17860536	0,19605865
15	0,10908308	0,12653637	0,14398966	0,16144296	0,17889625	0,19634954
16	0,10937397	0,12682726	0,14428055	0,16173384	0,17918714	0,19664043
17	0,10966485	0,12711815	0,14457144	0,16202473	0,17947802	0,19693132
18	0,10995574	0,12740904	0,14486233	0,16231562	0,17976891	0,19722221
19	0,11024663	0,12769992	0,14515322	0,16260651	0,1800598	0,19751309
20	0,11053752	0,12799081	0,1454441	0,1628974	0,18035069	0,19780398
21	0,11082841	0,1282817	0,14573499	0,16318829	0,18064158	0,19809487
22	0,1111193	0,12857259	0,14602588	0,16347917	0,18093247	0,19838576
23	0,11141018	0,12886348	0,14631677	0,16377006	0,18122335	0,19867665
24	0,11170107	0,12915436	0,14660766	0,16406095	0,18151424	0,19896753
25	0,11199196	0,12944525	0,14689855	0,16435184	0,18180513	0,19925842
26	0,11228285	0,12973614	0,14718943	0,16464273	0,18209602	0,19954931
27	0,11257374	0,13002703	0,14748032	0,16493361	0,18238691	0,1998402
28	0,11286462	0,13031792	0,14777121	0,1652245	0,1826778	0,20013109
29	0,11315551	0,13060881	0,1480621	0,16551539	0,18296868	0,20042198
30	0,1134464	0,13089969	0,14835299	0,16580628	0,18325957	0,20071286
31	0,11373729	0,13119058	0,14864387	0,16609717	0,18355046	0,20100375
32	0,11402818	0,13148147	0,14893476	0,16638806	0,18384135	0,20129464
33	0,11431907	0,13177236	0,14922565	0,16667894	0,18413224	0,20158553
34	0,11460995	0,13206325	0,14951654	0,16696983	0,18442312	0,20187642
35	0,11490084	0,13235413	0,14980743	0,16726072	0,18471401	0,20216731
36	0,11519173	0,13264502	0,15009832	0,16755161	0,1850049	0,20245819
37	0,11548262	0,13293591	0,1503892	0,1678425	0,18529579	0,20274908
38	0,11577351	0,1332268	0,15068009	0,16813338	0,18558668	0,20303997
39	0,1160644	0,13351769	0,15097098	0,16842427	0,18587757	0,20333086
40	0,11635528	0,13380858	0,15126187	0,16871516	0,18616845	0,20362175
41	0,11664617	0,13409946	0,15155276	0,16900605	0,18645934	0,20391263
42	0,11693706	0,13439035	0,15184364	0,16929694	0,18675023	0,20420352
43	0,11722795	0,13468124	0,15213453	0,16958783	0,18704112	0,20449441
44	0,11751884	0,13497213	0,15242542	0,16987871	0,18733201	0,2047853
45	0,11780972	0,13526302	0,15271631	0,1701696	0,18762289	0,20507619
46	0,11810061	0,13555391	0,1530072	0,17046049	0,18791378	0,20536708
47	0,1183915	0,13584479	0,15329809	0,17075138	0,18820467	0,20565796
48	0,11868239	0,13613568	0,15358897	0,17104227	0,18849556	0,20594885
49	0,11897328	0,13642657	0,15387986	0,17133315	0,18878645	0,20623974
50	0,11926417	0,13671746	0,15417075	0,17162404	0,18907734	0,20653063
51	0,11955505	0,13700835	0,15446164	0,17191493	0,18936822	0,20682152
52	0,11984594	0,13729923	0,15475253	0,17220582	0,18965911	0,2071124
53	0,12013683	0,13759012	0,15504342	0,17249671	0,18995	0,20740329
54	0,12042772	0,13788101	0,1553343	0,1727876	0,19024089	0,20769418
55	0,12071861	0,1381719	0,15562519	0,17307848	0,19053178	0,20798507
56	0,12100949	0,13846279	0,15591608	0,17336937	0,19082266	0,20827596
57	0,12130038	0,13875368	0,15620697	0,17366026	0,19111355	0,20856685
58	0,12159127	0,13904456	0,15649786	0,17395115	0,19140444	0,20885773
59	0,12188216	0,13933545	0,15678874	0,17424204	0,19169533	0,20914862
60	0,12217305	0,13962634	0,15707963	0,17453293	0,19198622	0,20943951

Minute	12°	13°	14°	15°	16°	17°
	Radian	Radian	Radian	Radian	Radian	Radian
0	0,20943951	0,2268928	0,2443461	0,26179939	0,27925268	0,29670597
1	0,2097304	0,22718369	0,24463698	0,26209028	0,27954357	0,29699686
2	0,21002129	0,22747458	0,24492787	0,26238116	0,27983446	0,29728775
3	0,21031217	0,22776547	0,24521876	0,26267205	0,28012534	0,29757864
4	0,21060306	0,22805636	0,24550965	0,26296294	0,28041623	0,29786953
5	0,21089395	0,22834724	0,24580054	0,26325383	0,28070712	0,29816041
6	0,21118484	0,22863813	0,24609142	0,26354472	0,28099801	0,2984513
7	0,21147573	0,22892902	0,24638231	0,26383561	0,2812889	0,29874219
8	0,21176662	0,22921991	0,2466732	0,26412649	0,28157979	0,29903308
9	0,2120575	0,2295108	0,24696409	0,26441738	0,28187067	0,29932397
10	0,21234839	0,22980168	0,24725498	0,26470827	0,28216156	0,29961485
11	0,21263928	0,23009257	0,24754587	0,26499916	0,28245245	0,29990574
12	0,21293017	0,23038346	0,24783675	0,26529005	0,28274334	0,30019663
13	0,21322106	0,23067435	0,24812764	0,26558093	0,28303423	0,30048752
14	0,21351195	0,23096524	0,24841853	0,26587182	0,28332512	0,30077841
15	0,21380283	0,23125613	0,24870942	0,26616271	0,283616	0,3010693
16	0,21409372	0,23154701	0,24900031	0,2664536	0,28390689	0,30136018
17	0,21438461	0,2318379	0,24929119	0,26674449	0,28419778	0,30165107
18	0,2146755	0,23212879	0,24958208	0,26703538	0,28448867	0,30194196
19	0,21496639	0,23241968	0,24987297	0,26732626	0,28477956	0,30223285
20	0,21525727	0,23271057	0,25016386	0,26761715	0,28507044	0,30252374
21	0,21554816	0,23300146	0,25045475	0,26790804	0,28536133	0,30281463
22	0,21583905	0,23329234	0,25074564	0,26819893	0,28565222	0,30310551
23	0,21612994	0,23358323	0,25103652	0,26848982	0,28594311	0,3033964
24	0,21642083	0,23387412	0,25132741	0,2687807	0,286234	0,30368729
25	0,21671172	0,23416501	0,2516183	0,26907159	0,28652489	0,30397818
26	0,2170026	0,2344559	0,25190919	0,26936248	0,28681577	0,30426907
27	0,21729349	0,23474678	0,25220008	0,26965337	0,28710666	0,30455995
28	0,21758438	0,23503767	0,25249097	0,26994426	0,28739755	0,30485084
29	0,21787527	0,23532856	0,25278185	0,27023515	0,28768844	0,30514173
30	0,21816616	0,23561945	0,25307274	0,27052603	0,28797933	0,30543262
31	0,21845704	0,23591034	0,25336363	0,27081692	0,28827021	0,30572351
32	0,21874793	0,23620123	0,25365452	0,27110781	0,2885611	0,3060144
33	0,21903882	0,23649211	0,25394541	0,2713987	0,28885199	0,30630528
34	0,21932971	0,236783	0,25423629	0,27168959	0,28914288	0,30659617
35	0,2196206	0,23707389	0,25452718	0,27198048	0,28943377	0,30688706
36	0,21991149	0,23736478	0,25481807	0,27227136	0,28972466	0,30717795
37	0,22020237	0,23765567	0,25510896	0,27256225	0,29001554	0,30746884
38	0,22049326	0,23794655	0,25539985	0,27285314	0,29030643	0,30775972
39	0,22078415	0,23823744	0,25569074	0,27314403	0,29059732	0,30805061
40	0,22107504	0,23852833	0,25598162	0,27343492	0,29088821	0,3083415
41	0,22136593	0,23881922	0,25627251	0,2737258	0,2911791	0,30863239
42	0,22165682	0,23911011	0,2565634	0,27401669	0,29146999	0,30892328
43	0,2219477	0,239401	0,25685429	0,27430758	0,29176087	0,30921417
44	0,22223859	0,23969188	0,25714518	0,27459847	0,29205176	0,30950505
45	0,22252948	0,23998277	0,25743606	0,27488936	0,29234265	0,30979594
46	0,22282037	0,24027366	0,25772695	0,27518025	0,29263354	0,31008683
47	0,22311126	0,24056455	0,25801784	0,27547113	0,29292443	0,31037772
48	0,22340214	0,24085544	0,25830873	0,27576202	0,29321531	0,31066861
49	0,22369303	0,24114632	0,25859962	0,27605291	0,2935062	0,3109595
50	0,22398392	0,24143721	0,25889051	0,2763438	0,29379709	0,31125038
51	0,22427481	0,2417281	0,25918139	0,27663469	0,29408798	0,31154127
52	0,2245657	0,24201899	0,25947228	0,27692557	0,29437887	0,31183216
53	0,22485659	0,24230988	0,25976317	0,27721646	0,29466976	0,31212305
54	0,22514747	0,24260077	0,26005406	0,27750735	0,29496064	0,31241394
55	0,22543836	0,24289165	0,26034495	0,27779824	0,29525153	0,31270482
56	0,22572925	0,24318254	0,26063583	0,27808913	0,29554242	0,31299571
57	0,22602014	0,24347343	0,26092672	0,27838002	0,29583331	0,3132866
58	0,22631103	0,24376432	0,26121761	0,2786709	0,2961242	0,31357749
59	0,22660191	0,24405521	0,2615085	0,27896179	0,29641508	0,31386838
60	0,2268928	0,2443461	0,26179939	0,27925268	0,29670597	0,31415927

	18°	19°	20°	21°	22°	23°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	0,31415927	0,33161256	0,34906585	0,36651914	0,38397244	0,40142573
1	0,31445015	0,33190345	0,34935674	0,36681003	0,38426332	0,40171662
2	0,31474104	0,33219433	0,34964763	0,36710092	0,38455421	0,4020075
3	0,31503193	0,33248522	0,34993852	0,36739181	0,3848451	0,40229839
4	0,31532282	0,33277611	0,3502294	0,3676827	0,38513599	0,40258928
5	0,31561371	0,333067	0,35052029	0,36797358	0,38542688	0,40288017
6	0,31590459	0,33335789	0,35081118	0,36826447	0,38571776	0,40317106
7	0,31619548	0,33364878	0,35110207	0,36855536	0,38600865	0,40346195
8	0,31648637	0,33393966	0,35139296	0,36884625	0,38629954	0,40375283
9	0,31677726	0,33423055	0,35168384	0,36913714	0,38659043	0,40404372
10	0,31706815	0,33452144	0,35197473	0,36942803	0,38688132	0,40433461
11	0,31735904	0,33481233	0,35226562	0,36971891	0,38717221	0,4046255
12	0,31764992	0,33510322	0,35255651	0,3700098	0,38746309	0,40491639
13	0,31794081	0,3353941	0,3528474	0,37030069	0,38775398	0,40520727
14	0,3182317	0,33568499	0,35313829	0,37059158	0,38804487	0,40549816
15	0,31852259	0,33597588	0,35342917	0,37088247	0,38833576	0,40578905
16	0,31881348	0,33626677	0,35372006	0,37117335	0,38862665	0,40607994
17	0,31910436	0,33655766	0,35401095	0,37146424	0,38891753	0,40637083
18	0,31939525	0,33684855	0,35430184	0,37175513	0,38920842	0,40666172
19	0,31968614	0,33713943	0,35459273	0,37204602	0,38949931	0,4069526
20	0,31997703	0,33743032	0,35488361	0,37233691	0,3897902	0,40724349
21	0,32026792	0,33772121	0,3551745	0,3726278	0,39008109	0,40753438
22	0,32055881	0,3380121	0,35546539	0,37291868	0,39037198	0,40782527
23	0,32084969	0,33830299	0,35575628	0,37320957	0,39066286	0,40811616
24	0,32114058	0,33859387	0,35604717	0,37350046	0,39095375	0,40840704
25	0,32143147	0,33888476	0,35633806	0,37379135	0,39124464	0,40869793
26	0,32172236	0,33917565	0,35662894	0,37408224	0,39153553	0,40898882
27	0,32201325	0,33946654	0,35691983	0,37437312	0,39182642	0,40927971
28	0,32230414	0,33975743	0,35721072	0,37466401	0,39211731	0,4095706
29	0,32259502	0,34004832	0,35750161	0,3749549	0,39240819	0,40986149
30	0,32288591	0,3403392	0,3577925	0,37524579	0,39269908	0,41015237
31	0,3231768	0,34063009	0,35808338	0,37553668	0,39298997	0,41044326
32	0,32346769	0,34092098	0,35837427	0,37582757	0,39328086	0,41073415
33	0,32375858	0,34121187	0,35866516	0,37611845	0,39357175	0,41102504
34	0,32404946	0,34150276	0,35895605	0,37640934	0,39386263	0,41131593
35	0,32434035	0,34179365	0,35924694	0,37670023	0,39415352	0,41160682
36	0,32463124	0,34208453	0,35953783	0,37699112	0,39444441	0,4118977
37	0,32492213	0,34237542	0,35982871	0,37728201	0,3947353	0,41218859
38	0,32521302	0,34266631	0,3601196	0,37757289	0,39502619	0,41247948
39	0,32550391	0,3429572	0,36041049	0,37786378	0,39531708	0,41277037
40	0,32579479	0,34324809	0,36070138	0,37815467	0,39560796	0,41306126
41	0,32608568	0,34353897	0,36099227	0,37844556	0,39589885	0,41335214
42	0,32637657	0,34382986	0,36128316	0,37873645	0,39618974	0,41364303
43	0,32666746	0,34412075	0,36157404	0,37902734	0,39648063	0,41393392
44	0,32695835	0,34441164	0,36186493	0,37931822	0,39677152	0,41422481
45	0,32724923	0,34470253	0,36215582	0,37960911	0,3970624	0,4145157
46	0,32754012	0,34499342	0,36244671	0,3799	0,39735329	0,41480659
47	0,32783101	0,3452843	0,3627376	0,38019089	0,39764418	0,41509747
48	0,3281219	0,34557519	0,36302848	0,38048178	0,39793507	0,41538836
49	0,32841279	0,34586608	0,36331937	0,38077267	0,39822596	0,41567925
50	0,32870368	0,34615697	0,36361026	0,38106355	0,39851685	0,41597014
51	0,32899456	0,34644786	0,36390115	0,38135444	0,39880773	0,41626103
52	0,32928545	0,34673874	0,36419204	0,38164533	0,39909862	0,41655191
53	0,32957634	0,34702963	0,36448293	0,38193622	0,39938951	0,4168428
54	0,32986723	0,34732052	0,36477381	0,38222711	0,3996804	0,41713369
55	0,33015812	0,34761141	0,3650647	0,38251799	0,39997129	0,41742458
56	0,33044901	0,3479023	0,36535559	0,38280888	0,40026218	0,41771547
57	0,33073989	0,34819319	0,36564648	0,38309977	0,40055306	0,41800636
58	0,33103078	0,34848407	0,36593737	0,38339066	0,40084395	0,41829724
59	0,33132167	0,34877496	0,36622825	0,38368155	0,40113484	0,41858813
60	0,33161256	0,34906585	0,36651914	0,38397244	0,40142573	0,41887902

Minute	24°	25°	26°	27°	28°	29°
	Radian	Radian	Radian	Radian	Radian	Radian
0	0,41887902	0,43633231	0,45378561	0,4712389	0,48869219	0,50614548
1	0,41916991	0,4366232	0,45407649	0,47152979	0,48898308	0,50643637
2	0,4194608	0,43691409	0,45436738	0,47182067	0,48927397	0,50672726
3	0,41975169	0,43720498	0,45465827	0,47211156	0,48956486	0,50701815
4	0,42004257	0,43749587	0,45494916	0,47240245	0,48985574	0,50730904
5	0,42033346	0,43778675	0,45524005	0,47269334	0,49014663	0,50759992
6	0,42062435	0,43807764	0,45553093	0,47298423	0,49043752	0,50789081
7	0,42091524	0,43836853	0,45582182	0,47327512	0,49072841	0,5081817
8	0,42120613	0,43865942	0,45611271	0,473566	0,4910193	0,50847259
9	0,42149701	0,43895031	0,4564036	0,47385689	0,49131018	0,50876348
10	0,4217879	0,4392412	0,45669449	0,47414778	0,49160107	0,50905437
11	0,42207879	0,43953208	0,45698538	0,47443867	0,49189196	0,50934525
12	0,42236968	0,43982297	0,45727626	0,47472956	0,49218285	0,50963614
13	0,42266057	0,44011386	0,45756715	0,47502044	0,49247374	0,50992703
14	0,42295146	0,44040475	0,45785804	0,47531133	0,49276463	0,51021792
15	0,42324234	0,44069564	0,45814893	0,47560222	0,49305551	0,51050881
16	0,42353323	0,44098652	0,45843982	0,47589311	0,4933464	0,51079969
17	0,42382412	0,44127741	0,45873071	0,476184	0,49363729	0,51109058
18	0,42411501	0,4415683	0,45902159	0,47647489	0,49392818	0,51138147
19	0,4244059	0,44185919	0,45931248	0,47676577	0,49421907	0,51167236
20	0,42469678	0,44215008	0,45960337	0,47705666	0,49450995	0,51196325
21	0,42498767	0,44244097	0,45989426	0,47734755	0,49480084	0,51225414
22	0,42527856	0,44273185	0,46018515	0,47763844	0,49509173	0,51254502
23	0,42556945	0,44302274	0,46047603	0,47792933	0,49538262	0,51283591
24	0,42586034	0,44331363	0,46076692	0,47822022	0,49567351	0,5131268
25	0,42615123	0,44360452	0,46105781	0,47851111	0,4959644	0,51341769
26	0,42644211	0,44389541	0,4613487	0,47880199	0,49625528	0,51370858
27	0,426733	0,44418629	0,46163959	0,47909288	0,49654617	0,51399946
28	0,42702389	0,44447718	0,46193048	0,47938377	0,49683706	0,51429035
29	0,42731478	0,44476807	0,46222136	0,47967466	0,49712795	0,51458124
30	0,42760567	0,44505896	0,46251225	0,47996554	0,49741884	0,51487213
31	0,42789655	0,44534985	0,46280314	0,48025643	0,49770973	0,51516302
32	0,42818744	0,44564074	0,46309403	0,48054732	0,49800061	0,51545391
33	0,42847833	0,44593162	0,46338492	0,48083821	0,4982915	0,51574479
34	0,42876922	0,44622251	0,4636758	0,4811291	0,49858239	0,51603568
35	0,42906011	0,4465134	0,46396669	0,48141999	0,49887328	0,51632657
36	0,429351	0,44680429	0,46425758	0,48171087	0,49916417	0,51661746
37	0,42964188	0,44709518	0,46454847	0,48200176	0,49945505	0,51690835
38	0,42993277	0,44738606	0,46483936	0,48229265	0,49974594	0,51719924
39	0,43022366	0,44767695	0,46513025	0,48258354	0,50003683	0,51749012
40	0,43051455	0,44796784	0,46542113	0,48287443	0,50032772	0,51778101
41	0,43080544	0,44825873	0,46571202	0,48316531	0,50061861	0,5180719
42	0,43109633	0,44854962	0,46600291	0,4834562	0,5009095	0,51836279
43	0,43138721	0,44884051	0,4662938	0,48374709	0,50120038	0,51865368
44	0,4316781	0,44913139	0,46658469	0,48403798	0,50149127	0,51894456
45	0,43196899	0,44942228	0,46687557	0,48432887	0,50178216	0,51923545
46	0,43225988	0,44971317	0,46716646	0,48461976	0,50207305	0,51952634
47	0,43255077	0,45000406	0,46745735	0,48491064	0,50236394	0,51981723
48	0,43284165	0,45029495	0,46774824	0,48520153	0,50265482	0,52010812
49	0,43313254	0,45058584	0,46803913	0,48549242	0,50294571	0,52039901
50	0,43342343	0,45087672	0,46833002	0,48578331	0,5032366	0,52068989
51	0,43371432	0,45116761	0,4686209	0,4860742	0,50352749	0,52098078
52	0,43400521	0,4514585	0,46891179	0,48636508	0,50381838	0,52127167
53	0,4342961	0,45174939	0,46920268	0,48665597	0,50410927	0,52156256
54	0,43458698	0,45204028	0,46949357	0,48694686	0,50440015	0,52185345
55	0,43487787	0,45233116	0,46978446	0,48723775	0,50469104	0,52214433
56	0,43516876	0,45262205	0,47007535	0,48752864	0,50498193	0,52243522
57	0,43545965	0,45291294	0,47036623	0,48781953	0,50527282	0,52272611
58	0,43575054	0,45320383	0,47065712	0,48811041	0,50556371	0,523017
59	0,43604142	0,45349472	0,47094801	0,4884013	0,50585459	0,52330789
60	0,43633231	0,45378561	0,4712389	0,48869219	0,50614548	0,52359878

	30°	31°	32°	33°	34°	35°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	0,52359878	0,54105207	0,55850536	0,57595865	0,59341195	0,61086524
1	0,52388966	0,54134296	0,55879625	0,57624954	0,59370283	0,61115613
2	0,52418055	0,54163384	0,55908714	0,57654043	0,59399372	0,61144701
3	0,52447144	0,54192473	0,55937803	0,57683132	0,59428461	0,6117379
4	0,52476233	0,54221562	0,55966891	0,57712221	0,5945755	0,61202879
5	0,52505322	0,54250651	0,5599598	0,57741309	0,59486639	0,61231968
6	0,5253441	0,5427974	0,56025069	0,57770398	0,59515727	0,61261057
7	0,52563499	0,54308829	0,56054158	0,57799487	0,59544816	0,61290146
8	0,52592588	0,54337917	0,56083247	0,57828576	0,59573905	0,61319234
9	0,52621677	0,54367006	0,56112335	0,57857665	0,59602994	0,61348323
10	0,52650766	0,54396095	0,56141424	0,57886754	0,59632083	0,61377412
11	0,52679855	0,54425184	0,56170513	0,57915842	0,59661172	0,61406501
12	0,52708943	0,54454273	0,56199602	0,57944931	0,5969026	0,6143559
13	0,52738032	0,54483361	0,56228691	0,5797402	0,59719349	0,61464678
14	0,52767121	0,5451245	0,5625778	0,58003109	0,59748438	0,61493767
15	0,5279621	0,54541539	0,56286868	0,58032198	0,59777527	0,61522856
16	0,52825299	0,54570628	0,56315957	0,58061286	0,59806616	0,61551945
17	0,52854388	0,54599717	0,56345046	0,58090375	0,59835705	0,61581034
18	0,52883476	0,54628806	0,56374135	0,58119464	0,59864793	0,61610123
19	0,52912565	0,54657894	0,56403224	0,58148553	0,59893882	0,61639211
20	0,52941654	0,54686983	0,56432312	0,58177642	0,59922971	0,616683
21	0,52970743	0,54716072	0,56461401	0,58206731	0,5995206	0,61697389
22	0,52999832	0,54745161	0,5649049	0,58235819	0,59981149	0,61726478
23	0,5302892	0,5477425	0,56519579	0,58264908	0,60010237	0,61755567
24	0,53058009	0,54803339	0,56548668	0,58293997	0,60039326	0,61784656
25	0,53087098	0,54832427	0,56577757	0,58323086	0,60068415	0,61813744
26	0,53116187	0,54861516	0,56606845	0,58352175	0,60097504	0,61842833
27	0,53145276	0,54890605	0,56635934	0,58381263	0,60126593	0,61871922
28	0,53174365	0,54919694	0,56665023	0,58410352	0,60155682	0,61901011
29	0,53203453	0,54948783	0,56694112	0,58439441	0,6018477	0,619301
30	0,53232542	0,54977871	0,56723201	0,5846853	0,60213859	0,61959188
31	0,53261631	0,5500696	0,5675229	0,58497619	0,60242948	0,61988277
32	0,5329072	0,55036049	0,56781378	0,58526708	0,60272037	0,62017366
33	0,53319809	0,55065138	0,56810467	0,58555796	0,60301126	0,62046455
34	0,53348897	0,55094227	0,56839556	0,58584885	0,60330214	0,62075544
35	0,53377986	0,55123316	0,56868645	0,58613974	0,60359303	0,62104633
36	0,53407075	0,55152404	0,56897734	0,58643063	0,60388392	0,62133721
37	0,53436164	0,55181493	0,56926822	0,58672152	0,60417481	0,6216281
38	0,53465253	0,55210582	0,56955911	0,58701241	0,6044657	0,62191899
39	0,53494342	0,55239671	0,56985	0,58730329	0,60475659	0,62220988
40	0,5352343	0,5526876	0,57014089	0,58759418	0,60504747	0,62250077
41	0,53552519	0,55297848	0,57043178	0,58788507	0,60533836	0,62279165
42	0,53581608	0,55326937	0,57072267	0,58817596	0,60562925	0,62308254
43	0,53610697	0,55356026	0,57101355	0,58846685	0,60592014	0,62337343
44	0,53639786	0,55385115	0,57130444	0,58875773	0,60621103	0,62366432
45	0,53668874	0,55414204	0,57159533	0,58904862	0,60650192	0,62395521
46	0,53697963	0,55443293	0,57188622	0,58933951	0,6067928	0,6242461
47	0,53727052	0,55472381	0,57217711	0,5896304	0,60708369	0,62453698
48	0,53756141	0,5550147	0,57246799	0,58992129	0,60737458	0,62482787
49	0,5378523	0,55530559	0,57275888	0,59021218	0,60766547	0,62511876
50	0,53814319	0,55559648	0,57304977	0,59050306	0,60795636	0,62540965
51	0,53843407	0,55588737	0,57334066	0,59079395	0,60824724	0,62570054
52	0,53872496	0,55617825	0,57363155	0,59108484	0,60853813	0,62599143
53	0,53901585	0,55646914	0,57392244	0,59137573	0,60882902	0,62628231
54	0,53930674	0,55676003	0,57421332	0,59166662	0,60911991	0,6265732
55	0,53959763	0,55705092	0,57450421	0,5919575	0,6094108	0,62686409
56	0,53988852	0,55734181	0,5747951	0,59224839	0,60970169	0,62715498
57	0,5401794	0,5576327	0,57508599	0,59253928	0,60999257	0,62744587
58	0,54047029	0,55792358	0,57537688	0,59283017	0,61028346	0,62773675
59	0,54076118	0,55821447	0,57566776	0,59312106	0,61057435	0,62802764
60	0,54105207	0,55850536	0,57595865	0,59341195	0,61086524	0,62831853

	36°	37°	38°	39°	40°	41°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	0,62831853	0,64577182	0,66322512	0,68067841	0,6981317	0,71558499
1	0,62860942	0,64606271	0,663516	0,6809693	0,69842259	0,71587588
2	0,62890031	0,6463536	0,66380689	0,68126018	0,69871348	0,71616677
3	0,6291912	0,64664449	0,66409778	0,68155107	0,69900437	0,71645766
4	0,62948208	0,64693538	0,66438867	0,68184196	0,69929525	0,71674855
5	0,62977297	0,64722626	0,66467956	0,68213285	0,69958614	0,71703943
6	0,63006386	0,64751715	0,66497045	0,68242374	0,69987703	0,71733032
7	0,63035475	0,64780804	0,66526133	0,68271463	0,70016792	0,71762121
8	0,63064564	0,64809893	0,66555222	0,68300551	0,70045881	0,7179121
9	0,63093652	0,64838982	0,66584311	0,6832964	0,70074969	0,71820299
10	0,63122741	0,64868071	0,666134	0,68358729	0,70104058	0,71849388
11	0,6315183	0,64897159	0,66642489	0,68387818	0,70133147	0,71878476
12	0,63180919	0,64926248	0,66671577	0,68416907	0,70162236	0,71907565
13	0,63210008	0,64955337	0,66700666	0,68445995	0,70191325	0,71936654
14	0,63239097	0,64984426	0,66729755	0,68475084	0,70220414	0,71965743
15	0,63268185	0,65013515	0,66758844	0,68504173	0,70249502	0,71994832
16	0,63297274	0,65042603	0,66787933	0,68533262	0,70278591	0,7202392
17	0,63326363	0,65071692	0,66817022	0,68562351	0,7030768	0,72053009
18	0,63355452	0,65100781	0,6684611	0,6859144	0,70336769	0,72082098
19	0,63384541	0,6512987	0,66875199	0,68620528	0,70365858	0,72111187
20	0,63413629	0,65158959	0,66904288	0,68649617	0,70394946	0,72140276
21	0,63442718	0,65188048	0,66933377	0,68678706	0,70424035	0,72169365
22	0,63471807	0,65217136	0,66962466	0,68707795	0,70453124	0,72198453
23	0,63500896	0,65246225	0,66991554	0,68736884	0,70482213	0,72227542
24	0,63529985	0,65275314	0,67020643	0,68765973	0,70511302	0,72256631
25	0,63559074	0,65304403	0,67049732	0,68795061	0,70540391	0,7228572
26	0,63588162	0,65333492	0,67078821	0,6882415	0,70569479	0,72314809
27	0,63617251	0,6536258	0,6710791	0,68853239	0,70598568	0,72343897
28	0,6364634	0,65391669	0,67136999	0,68882328	0,70627657	0,72372986
29	0,63675429	0,65420758	0,67166087	0,68911417	0,70656746	0,72402075
30	0,63704518	0,65449847	0,67195176	0,68940505	0,70685835	0,72431164
31	0,63733607	0,65478936	0,67224265	0,68969594	0,70714924	0,72460253
32	0,63762695	0,65508025	0,67253354	0,68998683	0,70744012	0,72489342
33	0,63791784	0,65537113	0,67282443	0,69027772	0,70773101	0,7251843
34	0,63820873	0,65566202	0,67311531	0,69056861	0,7080219	0,72547519
35	0,63849962	0,65595291	0,6734062	0,6908595	0,70831279	0,72576608
36	0,63879051	0,6562438	0,67369709	0,69115038	0,70860368	0,72605697
37	0,63908139	0,65653469	0,67398798	0,69144127	0,70889456	0,72634786
38	0,63937228	0,65682558	0,67427887	0,69173216	0,70918545	0,72663875
39	0,63966317	0,65711646	0,67456976	0,69202305	0,70947634	0,72692963
40	0,63995406	0,65740735	0,67486064	0,69231394	0,70976723	0,72722052
41	0,64024495	0,65769824	0,67515153	0,69260482	0,71005812	0,72751141
42	0,64053584	0,65798913	0,67544242	0,69289571	0,71034901	0,7278023
43	0,64082672	0,65828002	0,67573331	0,6931866	0,71063989	0,72809319
44	0,64111761	0,6585709	0,6760242	0,69347749	0,71093078	0,72838407
45	0,6414085	0,65886179	0,67631509	0,69376838	0,71122167	0,72867496
46	0,64169939	0,65915268	0,67660597	0,69405927	0,71151256	0,72896585
47	0,64199028	0,65944357	0,67689686	0,69435015	0,71180345	0,72925674
48	0,64228116	0,65973446	0,67718775	0,69464104	0,71209433	0,72954763
49	0,64257205	0,66002535	0,67747864	0,69493193	0,71238522	0,72983852
50	0,64286294	0,66031623	0,67776953	0,69522282	0,71267611	0,7301294
51	0,64315383	0,66060712	0,67806041	0,69551371	0,712967	0,73042029
52	0,64344472	0,66089801	0,6783513	0,6958046	0,71325789	0,73071118
53	0,64373561	0,6611889	0,67864219	0,69609548	0,71354878	0,73100207
54	0,64402649	0,66147979	0,67893308	0,69638637	0,71383966	0,73129296
55	0,64431738	0,66177067	0,67922397	0,69667726	0,71413055	0,73158384
56	0,64460827	0,66206156	0,67951486	0,69696815	0,71442144	0,73187473
57	0,64489916	0,66235245	0,67980574	0,69725904	0,71471233	0,73216562
58	0,64519005	0,66264334	0,68009663	0,69754992	0,71500322	0,73245651
59	0,64548094	0,66293423	0,68038752	0,69784081	0,71529411	0,7327474
60	0,64577182	0,66322512	0,68067841	0,6981317	0,71558499	0,73303829

	42°	43°	44°	45°	46°	47°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	0,73303829	0,75049158	0,76794487	0,78539816	0,80285146	0,82030475
1	0,73332917	0,75078247	0,76823576	0,78568905	0,80314234	0,82059564
2	0,73362006	0,75107335	0,76852665	0,78597994	0,80343323	0,82088652
3	0,73391095	0,75136424	0,76881754	0,78627083	0,80372412	0,82117741
4	0,73420184	0,75165513	0,76910842	0,78656172	0,80401501	0,8214683
5	0,73449273	0,75194602	0,76939931	0,7868526	0,8043059	0,82175919
6	0,73478362	0,75223691	0,7696902	0,78714349	0,80459679	0,82205008
7	0,7350745	0,7525278	0,76998109	0,78743438	0,80488767	0,82234097
8	0,73536539	0,75281868	0,77027198	0,78772527	0,80517856	0,82263185
9	0,73565628	0,75310957	0,77056286	0,78801616	0,80546945	0,82292274
10	0,73594717	0,75340046	0,77085375	0,78830705	0,80576034	0,82321363
11	0,73623806	0,75369135	0,77114464	0,78859793	0,80605123	0,82350452
12	0,73652894	0,75398224	0,77143553	0,78888882	0,80634211	0,82379541
13	0,73681983	0,75427313	0,77172642	0,78917971	0,806633	0,8240863
14	0,73711072	0,75456401	0,77201731	0,7894706	0,80692389	0,82437718
15	0,73740161	0,7548549	0,77230819	0,78976149	0,80721478	0,82466807
16	0,7376925	0,75514579	0,77259908	0,79005237	0,80750567	0,82495896
17	0,73798339	0,75543668	0,77288997	0,79034326	0,80779656	0,82524985
18	0,73827427	0,75572757	0,77318086	0,79063415	0,80808744	0,82554074
19	0,73856516	0,75601845	0,77347175	0,79092504	0,80837833	0,82583162
20	0,73885605	0,75630934	0,77376264	0,79121593	0,80866922	0,82612251
21	0,73914694	0,75660023	0,77405352	0,79150682	0,80896011	0,8264134
22	0,73943783	0,75689112	0,77434441	0,7917977	0,809251	0,82670429
23	0,73972871	0,75718201	0,7746353	0,79208859	0,80954188	0,82699518
24	0,7400196	0,7574729	0,77492619	0,79237948	0,80983277	0,82728607
25	0,74031049	0,75776378	0,77521708	0,79267037	0,81012366	0,82757695
26	0,74060138	0,75805467	0,77550796	0,79296126	0,81041455	0,82786784
27	0,74089227	0,75834556	0,77579885	0,79325215	0,81070544	0,82815873
28	0,74118316	0,75863645	0,77608974	0,79354303	0,81099633	0,82844962
29	0,74147404	0,75892734	0,77638063	0,79383392	0,81128721	0,82874051
30	0,74176493	0,75921822	0,77667152	0,79412481	0,8115781	0,82903139
31	0,74205582	0,75950911	0,77696241	0,7944157	0,81186899	0,82932228
32	0,74234671	0,7598	0,77725329	0,79470659	0,81215988	0,82961317
33	0,7426376	0,76009089	0,77754418	0,79499747	0,81245077	0,82990406
34	0,74292848	0,76038178	0,77783507	0,79528836	0,81274166	0,83019495
35	0,74321937	0,76067267	0,77812596	0,79557925	0,81303254	0,83048584
36	0,74351026	0,76096355	0,77841685	0,79587014	0,81332343	0,83077672
37	0,74380115	0,76125444	0,77870773	0,79616103	0,81361432	0,83106761
38	0,74409204	0,76154533	0,77899862	0,79645192	0,81390521	0,8313585
39	0,74438293	0,76183622	0,77928951	0,7967428	0,8141961	0,83164939
40	0,74467381	0,76212711	0,7795804	0,79703369	0,81448698	0,83194028
41	0,7449647	0,76241799	0,77987129	0,79732458	0,81477787	0,83223116
42	0,74525559	0,76270888	0,78016218	0,79761547	0,81506876	0,83252205
43	0,74554648	0,76299977	0,78045306	0,79790636	0,81535965	0,83281294
44	0,74583737	0,76329066	0,78074395	0,79819724	0,81565054	0,83310383
45	0,74612826	0,76358155	0,78103484	0,79848813	0,81594143	0,83339472
46	0,74641914	0,76387244	0,78132573	0,79877902	0,81623231	0,83368561
47	0,74671003	0,76416332	0,78161662	0,79906991	0,8165232	0,83397649
48	0,74700092	0,76445421	0,7819075	0,7993608	0,81681409	0,83426738
49	0,74729181	0,7647451	0,78219839	0,79965169	0,81710498	0,83455827
50	0,7475827	0,76503599	0,78248928	0,79994257	0,81739587	0,83484916
51	0,74787358	0,76532688	0,78278017	0,80023346	0,81768675	0,83514005
52	0,74816447	0,76561777	0,78307106	0,80052435	0,81797764	0,83543094
53	0,74845536	0,76590865	0,78336195	0,80081524	0,81826853	0,83572182
54	0,74874625	0,76619954	0,78365283	0,80110613	0,81855942	0,83601271
55	0,74903714	0,76649043	0,78394372	0,80139701	0,81885031	0,8363036
56	0,74932803	0,76678132	0,78423461	0,8016879	0,8191412	0,83659449
57	0,74961891	0,76707221	0,7845255	0,80197879	0,81943208	0,83688538
58	0,7499098	0,76736309	0,78481639	0,80226968	0,81972297	0,83717626
59	0,75020069	0,76765398	0,78510728	0,80256057	0,82001386	0,83746715
60	0,75049158	0,76794487	0,78539816	0,80285146	0,82030475	0,83775804

	48°	49°	50°	51°	52°	53°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	0,83775804	0,85521133	0,87266463	0,89011792	0,90757121	0,9250245
1	0,83804893	0,85550222	0,87295551	0,89040881	0,9078621	0,92531539
2	0,83833982	0,85579311	0,8732464	0,89069969	0,90815299	0,92560628
3	0,83863071	0,856084	0,87353729	0,89099058	0,90844388	0,92589717
4	0,83892159	0,85637489	0,87382818	0,89128147	0,90873476	0,92618806
5	0,83921248	0,85666577	0,87411907	0,89157236	0,90902565	0,92647894
6	0,83950337	0,85695666	0,87440996	0,89186325	0,90931654	0,92676983
7	0,83979426	0,85724755	0,87470084	0,89215414	0,90960743	0,92706072
8	0,84008515	0,85753844	0,87499173	0,89244502	0,90989832	0,92735161
9	0,84037603	0,85782933	0,87528262	0,89273591	0,9101892	0,9276425
10	0,84066692	0,85812022	0,87557351	0,8930268	0,91048009	0,92793339
11	0,84095781	0,8584111	0,8758644	0,89331769	0,91077098	0,92822427
12	0,8412487	0,85870199	0,87615528	0,89360858	0,91106187	0,92851516
13	0,84153959	0,85899288	0,87644617	0,89389947	0,91135276	0,92880605
14	0,84183048	0,85928377	0,87673706	0,89419035	0,91164365	0,92909694
15	0,84212136	0,85957466	0,87702795	0,89448124	0,91193453	0,92938783
16	0,84241225	0,85986554	0,87731884	0,89477213	0,91222542	0,92967871
17	0,84270314	0,86015643	0,87760973	0,89506302	0,91251631	0,9299696
18	0,84299403	0,86044732	0,87790061	0,89535391	0,9128072	0,93026049
19	0,84328492	0,86073821	0,8781915	0,89564479	0,91309809	0,93055138
20	0,84357581	0,8610291	0,87848239	0,89593568	0,91338898	0,93084227
21	0,84386669	0,86131999	0,87877328	0,89622657	0,91367986	0,93113316
22	0,84415758	0,86161087	0,87906417	0,89651746	0,91397075	0,93142404
23	0,84444847	0,86190176	0,87935505	0,89680835	0,91426164	0,93171493
24	0,84473936	0,86219265	0,87964594	0,89709924	0,91455253	0,93200582
25	0,84503025	0,86248354	0,87993683	0,89739012	0,91484342	0,93229671
26	0,84532113	0,86277443	0,88022772	0,89768101	0,9151343	0,9325876
27	0,84561202	0,86306532	0,88051861	0,8979719	0,91542519	0,93287849
28	0,84590291	0,8633562	0,8808095	0,89826279	0,91571608	0,93316937
29	0,8461938	0,86364709	0,88110038	0,89855368	0,91600697	0,93346026
30	0,84648469	0,86393798	0,88139127	0,89884456	0,91629786	0,93375115
31	0,84677558	0,86422887	0,88168216	0,89913545	0,91658875	0,93404204
32	0,84706646	0,86451976	0,88197305	0,89942634	0,91687963	0,93433293
33	0,84735735	0,86481064	0,88226394	0,89971723	0,91717052	0,93462381
34	0,84764824	0,86510153	0,88255483	0,90000812	0,91746141	0,9349147
35	0,84793913	0,86539242	0,88284571	0,90029901	0,9177523	0,93520559
36	0,84823002	0,86568331	0,8831366	0,90058989	0,91804319	0,93549648
37	0,8485209	0,8659742	0,88342749	0,90088078	0,91833407	0,93578737
38	0,84881179	0,86626509	0,88371838	0,90117167	0,91862496	0,93607826
39	0,84910268	0,86655597	0,88400927	0,90146256	0,91891585	0,93636914
40	0,84939357	0,86684686	0,88430015	0,90175345	0,91920674	0,93666003
41	0,84968446	0,86713775	0,88459104	0,90204434	0,91949763	0,93695092
42	0,84997535	0,86742864	0,88488193	0,90233522	0,91978852	0,93724181
43	0,85026623	0,86771953	0,88517282	0,90262611	0,9200794	0,9375327
44	0,85055712	0,86801041	0,88546371	0,902917	0,92037029	0,93782358
45	0,85084801	0,8683013	0,8857546	0,90320789	0,92066118	0,93811447
46	0,8511389	0,86859219	0,88604548	0,90349878	0,92095207	0,93840536
47	0,85142979	0,86888308	0,88633637	0,90378966	0,92124296	0,93869625
48	0,85172067	0,86917397	0,88662726	0,90408055	0,92153385	0,93898714
49	0,85201156	0,86946486	0,88691815	0,90437144	0,92182473	0,93927803
50	0,85230245	0,86975574	0,88720904	0,90466233	0,92211562	0,93956891
51	0,85259334	0,87004663	0,88749992	0,90495322	0,92240651	0,9398598
52	0,85288423	0,87033752	0,88779081	0,90524411	0,9226974	0,94015069
53	0,85317512	0,87062841	0,8880817	0,90553499	0,92298829	0,94044158
54	0,853466	0,8709193	0,88837259	0,90582588	0,92327917	0,94073247
55	0,85375689	0,87121018	0,88866348	0,90611677	0,92357006	0,94102336
56	0,85404778	0,87150107	0,88895437	0,90640766	0,92386095	0,94131424
57	0,85433867	0,87179196	0,88924525	0,90669855	0,92415184	0,94160513
58	0,85462956	0,87208285	0,88953614	0,90698943	0,92444273	0,94189602
59	0,85492045	0,87237374	0,88982703	0,90728032	0,92473362	0,94218691
60	0,85521133	0,87266463	0,89011792	0,90757121	0,9250245	0,9424778

	54°	55°	56°	57°	58°	59°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	0,9424778	0,95993109	0,97738438	0,99483767	1,01229097	1,02974426
1	0,94276868	0,96022198	0,97767527	0,99512856	1,01258185	1,03003515
2	0,94305957	0,96051287	0,97796616	0,99541945	1,01287274	1,03032604
3	0,94335046	0,96080375	0,97825705	0,99571034	1,01316363	1,03061692
4	0,94364135	0,96109464	0,97854793	0,99600123	1,01345452	1,03090781
5	0,94393224	0,96138553	0,97883882	0,99629211	1,01374541	1,03119870
6	0,94422313	0,96167642	0,97912971	0,996583	1,0140363	1,03148959
7	0,94451401	0,96196731	0,9794206	0,99687389	1,01432718	1,03178048
8	0,9448049	0,96225819	0,97971149	0,99716478	1,01461807	1,03207136
9	0,94509579	0,96254908	0,98000237	0,99745567	1,01490896	1,03236225
10	0,94538668	0,96283997	0,98029326	0,99774656	1,01519985	1,03265314
11	0,94567757	0,96313086	0,98058415	0,99803744	1,01549074	1,03294403
12	0,94596845	0,96342175	0,98087504	0,99832833	1,01578162	1,03323492
13	0,94625934	0,96371264	0,98116593	0,99861922	1,01607251	1,03352581
14	0,94655023	0,96400352	0,98145682	0,99891011	1,0163634	1,03381669
15	0,94684112	0,96429441	0,9817477	0,999201	1,01665429	1,03410758
16	0,94713201	0,9645853	0,98203859	0,99949188	1,01694518	1,03439847
17	0,9474229	0,96487619	0,98232948	0,99978277	1,01723607	1,03468936
18	0,94771378	0,96516708	0,98262037	1,00007366	1,01752695	1,03498025
19	0,94800467	0,96545796	0,98291126	1,00036455	1,01781784	1,03527113
20	0,94829556	0,96574885	0,98320215	1,00065544	1,01810873	1,03556202
21	0,94858645	0,96603974	0,98349303	1,00094633	1,01839962	1,03585291
22	0,94887734	0,96633063	0,98378392	1,00123721	1,01869051	1,0361438
23	0,94916822	0,96662152	0,98407481	1,0015281	1,01898139	1,03643469
24	0,94945911	0,96691241	0,9843657	1,00181899	1,01927228	1,03672558
25	0,94975	0,96720329	0,98465659	1,00210988	1,01956317	1,03701646
26	0,95004089	0,96749418	0,98494747	1,00240077	1,01985406	1,03730735
27	0,95033178	0,96778507	0,98523836	1,00269166	1,02014495	1,03759824
28	0,95062267	0,96807596	0,98552925	1,00298254	1,02043584	1,03788913
29	0,95091355	0,96836685	0,98582014	1,00327343	1,02072672	1,03818002
30	0,95120444	0,96865773	0,98611103	1,00356432	1,02101761	1,0384709
31	0,95149533	0,96894862	0,98640192	1,00385521	1,0213085	1,03876179
32	0,95178622	0,96923951	0,9866928	1,0041461	1,02159939	1,03905268
33	0,95207711	0,9695304	0,98698369	1,00443698	1,02189028	1,03934357
34	0,952368	0,96982129	0,98727458	1,00472787	1,02218117	1,03963446
35	0,95265888	0,97011218	0,98756547	1,00501876	1,02247205	1,03992535
36	0,95294977	0,97040306	0,98785636	1,00530965	1,02276294	1,04021623
37	0,95324066	0,97069395	0,98814724	1,00560054	1,02305383	1,04050712
38	0,95353155	0,97098484	0,98843813	1,00589143	1,02334472	1,04079801
39	0,95382244	0,97127573	0,98872902	1,00618231	1,02363561	1,0410889
40	0,95411332	0,97156662	0,98901991	1,0064732	1,02392649	1,04137979
41	0,95440421	0,97185751	0,9893108	1,00676409	1,02421738	1,04167068
42	0,9546951	0,97214839	0,98960169	1,00705498	1,02450827	1,04196156
43	0,95498599	0,97243928	0,98989257	1,00734587	1,02479916	1,04225245
44	0,95527688	0,97273017	0,99018346	1,00763675	1,02509005	1,04254334
45	0,95556777	0,97302106	0,99047435	1,00792764	1,02538094	1,04283423
46	0,95585865	0,97331195	0,99076524	1,00821853	1,02567182	1,04312512
47	0,95614954	0,97360283	0,99105613	1,00850942	1,02596271	1,043416
48	0,95644043	0,97389372	0,99134702	1,00880031	1,0262536	1,04370689
49	0,95673132	0,97418461	0,9916379	1,0090912	1,02654449	1,04399778
50	0,95702221	0,9744755	0,99192879	1,00938208	1,02683538	1,04428867
51	0,95731309	0,97476639	0,99221968	1,00967297	1,02712626	1,04457956
52	0,95760398	0,97505728	0,99251057	1,00996386	1,02741715	1,04487045
53	0,95789487	0,97534816	0,99280146	1,01025475	1,02770804	1,04516133
54	0,95818576	0,97563905	0,99309234	1,01054564	1,02799893	1,04545222
55	0,95847665	0,97592994	0,99338323	1,01083653	1,02828982	1,04574311
56	0,95876754	0,97622083	0,99367412	1,01112741	1,02858071	1,046034
57	0,95905842	0,97651172	0,99396501	1,0114183	1,02887159	1,04632489
58	0,95934931	0,9768026	0,9942559	1,01170919	1,02916248	1,04661577
59	0,9596402	0,97709349	0,99454679	1,01200008	1,02945337	1,04690666
60	0,95993109	0,97738438	0,99483767	1,01229097	1,02974426	1,04719755

Minute	60°	61°	62°	63°	64°	65°
	Radian	Radian	Radian	Radian	Radian	Radian
0	1,04719755	1,06465084	1,08210414	1,09955743	1,11701072	1,13446401
1	1,04748844	1,06494173	1,08239502	1,09984832	1,11730161	1,1347549
2	1,04777933	1,06523262	1,08268591	1,10013921	1,1175925	1,13504579
3	1,04807022	1,06552351	1,0829768	1,10043009	1,11788339	1,13533668
4	1,04836111	1,0658144	1,08326769	1,10072098	1,11817427	1,13562757
5	1,04865199	1,06610528	1,08355858	1,10101187	1,11846516	1,13591845
6	1,04894288	1,06639617	1,08384947	1,10130276	1,11875605	1,13620934
7	1,04923377	1,06668706	1,08414035	1,10159365	1,11904694	1,13650023
8	1,04952466	1,06697795	1,08443124	1,10188453	1,11933783	1,13679112
9	1,04981555	1,06726884	1,08472213	1,10217542	1,11962872	1,13708201
10	1,05010643	1,06755973	1,08501302	1,10246631	1,1199196	1,1373729
11	1,05039732	1,06785061	1,08530391	1,1027572	1,12021049	1,13766378
12	1,05068821	1,0681415	1,08559479	1,10304809	1,12050138	1,13795467
13	1,0509791	1,06843239	1,08588568	1,10333898	1,12079227	1,13824556
14	1,05126999	1,06872328	1,08617657	1,10362986	1,12108316	1,13853645
15	1,05156087	1,06901417	1,08646746	1,10392075	1,12137404	1,13882734
16	1,05185176	1,06930506	1,08675835	1,10421164	1,12166493	1,13911823
17	1,05214265	1,06959594	1,08704924	1,10450253	1,12195582	1,13940911
18	1,05243354	1,06988683	1,08734012	1,10479342	1,12224671	1,1397
19	1,05272443	1,07017772	1,08763101	1,1050843	1,1225376	1,13999089
20	1,05301532	1,07046861	1,0879219	1,10537519	1,12282849	1,14028178
21	1,0533062	1,0707595	1,08821279	1,10566608	1,12311937	1,14057267
22	1,05359709	1,07105038	1,08850368	1,10595697	1,12341026	1,14086355
23	1,05388798	1,07134127	1,08879457	1,10624786	1,12370115	1,14115444
24	1,05417887	1,07163216	1,08908545	1,10653875	1,12399204	1,14144533
25	1,05446976	1,07192305	1,08937634	1,10682963	1,12428293	1,14173622
26	1,05476064	1,07221394	1,08966723	1,10712052	1,12457381	1,14202711
27	1,05505153	1,07250483	1,08995812	1,10741141	1,1248647	1,142318
28	1,05534242	1,07279571	1,09024901	1,1077023	1,12515559	1,14260888
29	1,05563331	1,0730866	1,09053989	1,10799319	1,12544648	1,14289977
30	1,0559242	1,07337749	1,09083078	1,10828408	1,12573737	1,14319066
31	1,05621509	1,07366838	1,09112167	1,10857496	1,12602826	1,14348155
32	1,05650597	1,07395927	1,09141256	1,10886585	1,12631914	1,14377244
33	1,05679686	1,07425015	1,09170345	1,10915674	1,12661003	1,14406332
34	1,05708775	1,07454104	1,09199434	1,10944763	1,12690092	1,14435421
35	1,05737864	1,07483193	1,09228522	1,10973852	1,12719181	1,1446451
36	1,05766953	1,07512282	1,09257611	1,1100294	1,1274827	1,14493599
37	1,05796041	1,07541371	1,092867	1,11032029	1,12777358	1,14522688
38	1,0582513	1,0757046	1,09315789	1,11061118	1,12806447	1,14551777
39	1,05854219	1,07599548	1,09344878	1,11090207	1,12835536	1,14580865
40	1,05883308	1,07628637	1,09373966	1,11119296	1,12864625	1,14609954
41	1,05912397	1,07657726	1,09403055	1,11148385	1,12893714	1,14639043
42	1,05941486	1,07686815	1,09432144	1,11177473	1,12922803	1,14668132
43	1,05970574	1,07715904	1,09461233	1,11206562	1,12951891	1,14697221
44	1,05999663	1,07744992	1,09490322	1,11235651	1,1298098	1,14726309
45	1,06028752	1,07774081	1,09519411	1,1126474	1,13010069	1,14755398
46	1,06057841	1,0780317	1,09548499	1,11293829	1,13039158	1,14784487
47	1,0608693	1,07832259	1,09577588	1,11322917	1,13068247	1,14813576
48	1,06116019	1,07861348	1,09606677	1,11352006	1,13097336	1,14842665
49	1,06145107	1,07890437	1,09635766	1,11381095	1,13126424	1,14871754
50	1,06174196	1,07919525	1,09664855	1,11410184	1,13155513	1,14900842
51	1,06203285	1,07948614	1,09693943	1,11439273	1,13184602	1,14929931
52	1,06232374	1,07977703	1,09723032	1,11468362	1,13213691	1,1495902
53	1,06261463	1,08006792	1,09752121	1,1149745	1,1324278	1,14988109
54	1,06290551	1,08035881	1,0978121	1,11526539	1,13271868	1,15017198
55	1,0631964	1,0806497	1,09810299	1,11555628	1,13300957	1,15046287
56	1,06348729	1,08094058	1,09839388	1,11584717	1,13330046	1,15075375
57	1,06377818	1,08123147	1,09868476	1,11613806	1,13359135	1,15104464
58	1,06406907	1,08152236	1,09897565	1,11642894	1,13388224	1,15133553
59	1,06435996	1,08181325	1,09926654	1,11671983	1,13417313	1,15162642
60	1,06465084	1,08210414	1,09955743	1,11701072	1,13446401	1,15191731

	66°	67°	68°	69°	70°	71°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	1,15191731	1,1693706	1,18682389	1,20427718	1,22173048	1,23918377
1	1,15220819	1,16966149	1,18711478	1,20456807	1,22202136	1,23947466
2	1,15249908	1,16995238	1,18740567	1,20485896	1,22231225	1,23976555
3	1,15278997	1,17024326	1,18769656	1,20514985	1,22260314	1,24005643
4	1,15308086	1,17053415	1,18798744	1,20544074	1,22289403	1,24034732
5	1,15337175	1,17082504	1,18827833	1,20573162	1,22318492	1,24063821
6	1,15366264	1,17111593	1,18856922	1,20602251	1,22347581	1,2409291
7	1,15395352	1,17140682	1,18886011	1,2063134	1,22376669	1,24121999
8	1,15424441	1,1716977	1,189151	1,20660429	1,22405758	1,24151087
9	1,1545353	1,17198859	1,18944189	1,20689518	1,22434847	1,24180176
10	1,15482619	1,17227948	1,18973277	1,20718607	1,22463936	1,24209265
11	1,15511708	1,17257037	1,19002366	1,20747695	1,22493025	1,24238354
12	1,15540796	1,17286126	1,19031455	1,20776784	1,22522113	1,24267443
13	1,15569885	1,17315215	1,19060544	1,20805873	1,22551202	1,24296532
14	1,15598974	1,17344303	1,19089633	1,20834962	1,22580291	1,24325621
15	1,15628063	1,17373392	1,19118721	1,20864051	1,2260938	1,24354709
16	1,15657152	1,17402481	1,1914781	1,2089314	1,22638469	1,24383798
17	1,15686241	1,1743157	1,19176899	1,20922228	1,22667558	1,24412887
18	1,15715329	1,17460659	1,19205988	1,20951317	1,22696646	1,24441976
19	1,15744418	1,17489747	1,19235077	1,20980406	1,22725735	1,24471064
20	1,15773507	1,17518836	1,19264166	1,21009495	1,22754824	1,24500153
21	1,15802596	1,17547925	1,19293254	1,21038584	1,22783913	1,24529242
22	1,15831685	1,17577014	1,19322343	1,21067672	1,22813002	1,24558331
23	1,15860774	1,17606103	1,19351432	1,21096761	1,22842091	1,2458742
24	1,15889862	1,17635192	1,19380521	1,2112585	1,22871179	1,24616509
25	1,15918951	1,1766428	1,1940961	1,21154939	1,22900268	1,24645597
26	1,1594804	1,17693369	1,19438698	1,21184028	1,22929357	1,24674686
27	1,15977129	1,17722458	1,19467787	1,21213117	1,22958446	1,24703775
28	1,16006218	1,17751547	1,19496876	1,21242205	1,22987535	1,24732864
29	1,16035306	1,17780636	1,19525965	1,21271294	1,23016623	1,24761953
30	1,16064395	1,17809725	1,19555054	1,21300383	1,23045712	1,24791042
31	1,16093484	1,17838813	1,19584143	1,21329472	1,23074801	1,2482013
32	1,16122573	1,17867902	1,19613231	1,21358561	1,2310389	1,24849219
33	1,16151662	1,17896991	1,1964232	1,21387649	1,23132979	1,24878308
34	1,16180751	1,1792608	1,19671409	1,21416738	1,23162068	1,24907397
35	1,16209839	1,17955169	1,19700498	1,21445827	1,23191156	1,24936486
36	1,16238928	1,17984257	1,19729587	1,21474916	1,23220245	1,24965574
37	1,16268017	1,18013346	1,19758676	1,21504005	1,23249334	1,24994663
38	1,16297106	1,18042435	1,19787764	1,21533094	1,23278423	1,25023752
39	1,16326195	1,18071524	1,19816853	1,21562182	1,23307512	1,25052841
40	1,16355283	1,18100613	1,19845942	1,21591271	1,233366	1,2508193
41	1,16384372	1,18129702	1,19875031	1,2162036	1,23365689	1,25111019
42	1,16413461	1,1815879	1,1990412	1,21649449	1,23394778	1,25140107
43	1,1644255	1,18187879	1,19933208	1,21678538	1,23423867	1,25169196
44	1,16471639	1,18216968	1,19962297	1,21707627	1,23452956	1,25198285
45	1,16500728	1,18246057	1,19991386	1,21736715	1,23482045	1,25227374
46	1,16529816	1,18275146	1,20020475	1,21765804	1,23511133	1,25256463
47	1,16558905	1,18304234	1,20049564	1,21794893	1,23540222	1,25285551
48	1,16587994	1,18333323	1,20078653	1,21823982	1,23569311	1,2531464
49	1,16617083	1,18362412	1,20107741	1,21853071	1,235984	1,25343729
50	1,16646172	1,18391501	1,2013683	1,21882159	1,23627489	1,25372818
51	1,1667526	1,1842059	1,20165919	1,21911248	1,23656578	1,25401907
52	1,16704349	1,18449679	1,20195008	1,21940337	1,23685666	1,25430996
53	1,16733438	1,18478767	1,20224097	1,21969426	1,23714755	1,25460084
54	1,16762527	1,18507856	1,20253185	1,21998515	1,23743844	1,25489173
55	1,16791616	1,18536945	1,20282274	1,22027604	1,23772933	1,25518262
56	1,16820705	1,18566034	1,20311363	1,22056692	1,23802022	1,25547351
57	1,16849793	1,18595123	1,20340452	1,22085781	1,23831111	1,2557644
58	1,16878882	1,18624211	1,20369541	1,2211487	1,23860199	1,25605529
59	1,16907971	1,186533	1,2039863	1,22143959	1,23889288	1,25634617
60	1,1693706	1,18682389	1,20427718	1,22173048	1,23918377	1,25663706

	72°	73°	74°	75°	76°	77°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	1,25663706	1,27409035	1,29154365	1,30899694	1,32645023	1,34390352
1	1,25692795	1,27438124	1,29183453	1,30928783	1,32674112	1,34419441
2	1,25721884	1,27467213	1,29212542	1,30957872	1,32703201	1,3444853
3	1,25750973	1,27496302	1,29241631	1,3098696	1,3273229	1,34477619
4	1,25780061	1,27525391	1,2927072	1,31016049	1,32761378	1,34506708
5	1,2580915	1,27554479	1,29299809	1,31045138	1,32790467	1,34535797
6	1,25838239	1,27583568	1,29328898	1,31074227	1,32819556	1,34564885
7	1,25867328	1,27612657	1,29357986	1,31103316	1,32848645	1,34593974
8	1,25896417	1,27641746	1,29387075	1,31132404	1,32877734	1,34623063
9	1,25925506	1,27670835	1,29416164	1,31161493	1,32906823	1,34652152
10	1,25954594	1,27699924	1,29445253	1,31190582	1,32935911	1,34681241
11	1,25983683	1,27729012	1,29474342	1,31219671	1,32965	1,34710329
12	1,26012772	1,27758101	1,2950343	1,3124876	1,32994089	1,34739418
13	1,26041861	1,2778719	1,29532519	1,31277849	1,33023178	1,34768507
14	1,2607095	1,27816279	1,29561608	1,31306937	1,33052267	1,34797596
15	1,26100038	1,27845368	1,29590697	1,31336026	1,33081355	1,34826685
16	1,26129127	1,27874457	1,29619786	1,31365115	1,33110444	1,34855774
17	1,26158216	1,27903545	1,29648875	1,31394204	1,33139533	1,34884862
18	1,26187305	1,27932634	1,29677963	1,31423293	1,33168622	1,34913951
19	1,26216394	1,27961723	1,29707052	1,31452381	1,33197711	1,3494304
20	1,26245483	1,27990812	1,29736141	1,3148147	1,332268	1,34972129
21	1,26274571	1,28019901	1,2976523	1,31510559	1,33255888	1,35001218
22	1,2630366	1,28048989	1,29794319	1,31539648	1,33284977	1,35030306
23	1,26332749	1,28078078	1,29823408	1,31568737	1,33314066	1,35059395
24	1,26361838	1,28107167	1,29852496	1,31597826	1,33343155	1,35088484
25	1,26390927	1,28136256	1,29881585	1,31626914	1,33372244	1,35117573
26	1,26420015	1,28165345	1,29910674	1,31656003	1,33401332	1,35146662
27	1,26449104	1,28194434	1,29939763	1,31685092	1,33430421	1,35175751
28	1,26478193	1,28223522	1,29968852	1,31714181	1,3345951	1,35204839
29	1,26507282	1,28252611	1,2999794	1,3174327	1,33488599	1,35233928
30	1,26536371	1,282817	1,30027029	1,31772359	1,33517688	1,35263017
31	1,2656546	1,28310789	1,30056118	1,31801447	1,33546777	1,35292106
32	1,26594548	1,28339878	1,30085207	1,31830536	1,33575865	1,35321195
33	1,26623637	1,28368966	1,30114296	1,31859625	1,33604954	1,35350283
34	1,26652726	1,28398055	1,30143385	1,31888714	1,33634043	1,35379372
35	1,26681815	1,28427144	1,30172473	1,31917803	1,33663132	1,35408461
36	1,26710904	1,28456233	1,30201562	1,31946891	1,33692221	1,3543755
37	1,26739993	1,28485322	1,30230651	1,3197598	1,3372131	1,35466639
38	1,26769081	1,28514411	1,3025974	1,32005069	1,33750398	1,35495728
39	1,2679817	1,28543499	1,30288829	1,32034158	1,33779487	1,35524816
40	1,26827259	1,28572588	1,30317917	1,32063247	1,33808576	1,35553905
41	1,26856348	1,28601677	1,30347006	1,32092336	1,33837665	1,35582994
42	1,26885437	1,28630766	1,30376095	1,32121424	1,33866754	1,35612083
43	1,26914525	1,28659855	1,30405184	1,32150513	1,33895842	1,35641172
44	1,26943614	1,28688944	1,30434273	1,32179602	1,33924931	1,35670261
45	1,26972703	1,28718032	1,30463362	1,32208691	1,3395402	1,35699349
46	1,27001792	1,28747121	1,3049245	1,3223778	1,33983109	1,35728438
47	1,27030881	1,2877621	1,30521539	1,32266868	1,34012198	1,35757527
48	1,2705997	1,28805299	1,30550628	1,32295957	1,34041287	1,35786616
49	1,27089058	1,28834388	1,30579717	1,32325046	1,34070375	1,35815705
50	1,27118147	1,28863476	1,30608806	1,32354135	1,34099464	1,35844793
51	1,27147236	1,28892565	1,30637895	1,32383224	1,34128553	1,35873882
52	1,27176325	1,28921654	1,30666983	1,32412313	1,34157642	1,35902971
53	1,27205414	1,28950743	1,30696072	1,32441401	1,34186731	1,3593206
54	1,27234502	1,28979832	1,30725161	1,3247049	1,34215819	1,35961149
55	1,27263591	1,29008921	1,3075425	1,32499579	1,34244908	1,35990238
56	1,2729268	1,29038009	1,30783339	1,32528668	1,34273997	1,36019326
57	1,27321769	1,29067098	1,30812427	1,32557757	1,34303086	1,36048415
58	1,27350858	1,29096187	1,30841516	1,32586846	1,34332175	1,36077504
59	1,27379947	1,29125276	1,30870605	1,32615934	1,34361264	1,36106593
60	1,27409035	1,29154365	1,30899694	1,32645023	1,34390352	1,36135682

	78°	79°	80°	81°	82°	83°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	1,36135682	1,37881011	1,3962634	1,41371669	1,43116999	1,44862328
1	1,3616477	1,379101	1,39655429	1,41400758	1,43146087	1,44891417
2	1,36193859	1,37939189	1,39684518	1,41429847	1,43175176	1,44920506
3	1,36222948	1,37968277	1,39713607	1,41458936	1,43204265	1,44949594
4	1,36252037	1,37997366	1,39742695	1,41488025	1,43233354	1,44978683
5	1,36281126	1,38026455	1,39771784	1,41517114	1,43262443	1,45007772
6	1,36310215	1,38055544	1,39800873	1,41546202	1,43291532	1,45036861
7	1,36339303	1,38084633	1,39829962	1,41575291	1,4332062	1,4506595
8	1,36368392	1,38113721	1,39859051	1,4160438	1,43349709	1,45095038
9	1,36397481	1,3814281	1,3988814	1,41633469	1,43378798	1,45124127
10	1,3642657	1,38171899	1,39917228	1,41662558	1,43407887	1,45153216
11	1,36455659	1,38200988	1,39946317	1,41691646	1,43436976	1,45182305
12	1,36484748	1,38230077	1,39975406	1,41720735	1,43466065	1,45211394
13	1,36513836	1,38259166	1,40004495	1,41749824	1,43495153	1,45240483
14	1,36542925	1,38288254	1,40033584	1,41778913	1,43524242	1,45269571
15	1,36572014	1,38317343	1,40062672	1,41808002	1,43553331	1,4529866
16	1,36601103	1,38346432	1,40091761	1,41837091	1,4358242	1,45327749
17	1,36630192	1,38375521	1,4012085	1,41866179	1,43611509	1,45356838
18	1,3665928	1,3840461	1,40149939	1,41895268	1,43640597	1,45385927
19	1,36688369	1,38433699	1,40179028	1,41924357	1,43669686	1,45415016
20	1,36717458	1,38462787	1,40208117	1,41953446	1,43698775	1,45444104
21	1,36746547	1,38491876	1,40237205	1,41982535	1,43727864	1,45473193
22	1,36775636	1,38520965	1,40266294	1,42011623	1,43756953	1,45502282
23	1,36804725	1,38550054	1,40295383	1,42040712	1,43786042	1,45531371
24	1,36833813	1,38579143	1,40324472	1,42069801	1,4381513	1,4556046
25	1,36862902	1,38608231	1,40353561	1,4209889	1,43844219	1,45589548
26	1,36891991	1,3863732	1,4038265	1,42127979	1,43873308	1,45618637
27	1,3692108	1,38666409	1,40411738	1,42157068	1,43902397	1,45647726
28	1,36950169	1,38695498	1,40440827	1,42186156	1,43931486	1,45676815
29	1,36979257	1,38724587	1,40469916	1,42215245	1,43960574	1,45705904
30	1,37008346	1,38753676	1,40499005	1,42244334	1,43989663	1,45734993
31	1,37037435	1,38782764	1,40528094	1,42273423	1,44018752	1,45764081
32	1,37066524	1,38811853	1,40557182	1,42302512	1,44047841	1,4579317
33	1,37095613	1,38840942	1,40586271	1,42331601	1,4407693	1,45822259
34	1,37124702	1,38870031	1,4061536	1,42360689	1,44106019	1,45851348
35	1,3715379	1,3889912	1,40644449	1,42389778	1,44135107	1,45880437
36	1,37182879	1,38928208	1,40673538	1,42418867	1,44164196	1,45909525
37	1,37211968	1,38957297	1,40702627	1,42447956	1,44193285	1,45938614
38	1,37241057	1,38986386	1,40731715	1,42477045	1,44222374	1,45967703
39	1,37270146	1,39015475	1,40760804	1,42506133	1,44251463	1,45996792
40	1,37299234	1,39044564	1,40789893	1,42535222	1,44280551	1,46025881
41	1,37328323	1,39073653	1,40818982	1,42564311	1,4430964	1,4605497
42	1,37357412	1,39102741	1,40848071	1,425934	1,44338729	1,46084058
43	1,37386501	1,3913183	1,40877159	1,42622489	1,44367818	1,46113147
44	1,3741559	1,39160919	1,40906248	1,42651578	1,44396907	1,46142236
45	1,37444679	1,39190008	1,40935337	1,42680666	1,44425996	1,46171325
46	1,37473767	1,39219097	1,40964426	1,42709755	1,44455084	1,46200414
47	1,37502856	1,39248185	1,40993515	1,42738844	1,44484173	1,46229502
48	1,37531945	1,39277274	1,41022604	1,42767933	1,44513262	1,46258591
49	1,37561034	1,39306363	1,41051692	1,42797022	1,44542351	1,4628768
50	1,37590123	1,39335452	1,41080781	1,4282611	1,4457144	1,46316769
51	1,37619212	1,39364541	1,4110987	1,42855199	1,44600529	1,46345858
52	1,376483	1,3939363	1,41138959	1,42884288	1,44629617	1,46374947
53	1,37677389	1,39422718	1,41168048	1,42913377	1,44658706	1,46404035
54	1,37706478	1,39451807	1,41197136	1,42942466	1,44687795	1,46433124
55	1,37735567	1,39480896	1,41226225	1,42971555	1,44716884	1,46462213
56	1,37764656	1,39509985	1,41255314	1,43000643	1,44745973	1,46491302
57	1,37793744	1,39539074	1,41284403	1,43029732	1,44775061	1,46520391
58	1,37822833	1,39568163	1,41313492	1,43058821	1,4480415	1,4654948
59	1,37851922	1,39597251	1,41342581	1,4308791	1,44833239	1,46578568
60	1,37881011	1,3962634	1,41371669	1,43116999	1,44862328	1,46607657

	84°	85°	86°	87°	88°	89°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	1,46607657	1,48352986	1,50098316	1,51843645	1,53588974	1,55334303
1	1,46636746	1,48382075	1,50127404	1,51872734	1,53618063	1,55363392
2	1,46665835	1,48411164	1,50156493	1,51901823	1,53647152	1,55392481
3	1,46694924	1,48440253	1,50185582	1,51930911	1,53676241	1,5542157
4	1,46724012	1,48469342	1,50214671	1,5196	1,53705329	1,55450659
5	1,46753101	1,48498431	1,5024376	1,51989089	1,53734418	1,55479748
6	1,4678219	1,48527519	1,50272849	1,52018178	1,53763507	1,55508836
7	1,46811279	1,48556608	1,50301937	1,52047267	1,53792596	1,55537925
8	1,46840368	1,48585697	1,50331026	1,52076355	1,53821685	1,55567014
9	1,46869457	1,48614786	1,50360115	1,52105444	1,53850774	1,55596103
10	1,46898545	1,48643875	1,50389204	1,52134533	1,53879862	1,55625192
11	1,46927634	1,48672963	1,50418293	1,52163622	1,53908951	1,5565428
12	1,46956723	1,48702052	1,50447382	1,52192711	1,5393804	1,55683369
13	1,46985812	1,48731141	1,5047647	1,522218	1,53967129	1,55712458
14	1,47014901	1,4876023	1,50505559	1,52250888	1,53996218	1,55741547
15	1,47043989	1,48789319	1,50534648	1,52279977	1,54025306	1,55770636
16	1,47073078	1,48818408	1,50563737	1,52309066	1,54054395	1,55799725
17	1,47102167	1,48847496	1,50592826	1,52338155	1,54083484	1,55828813
18	1,47131256	1,48876585	1,50621914	1,52367244	1,54112573	1,55857902
19	1,47160345	1,48905674	1,50651003	1,52396333	1,54141662	1,55886991
20	1,47189434	1,48934763	1,50680092	1,52425421	1,54170751	1,5591608
21	1,47218522	1,48963852	1,50709181	1,5245451	1,54199839	1,55945169
22	1,47247611	1,4899294	1,5073827	1,52483599	1,54228928	1,55974257
23	1,472767	1,49022029	1,50767359	1,52512688	1,54258017	1,56003346
24	1,47305789	1,49051118	1,50796447	1,52541777	1,54287106	1,56032435
25	1,47334878	1,49080207	1,50825536	1,52570865	1,54316195	1,56061524
26	1,47363967	1,49109296	1,50854625	1,52599954	1,54345284	1,56090613
27	1,47393055	1,49138385	1,50883714	1,52629043	1,54374372	1,56119702
28	1,47422144	1,49167473	1,50912803	1,52658132	1,54403461	1,5614879
29	1,47451233	1,49196562	1,50941891	1,52687221	1,5443255	1,56177879
30	1,47480322	1,49225651	1,5097098	1,5271631	1,54461639	1,56206968
31	1,47509411	1,4925474	1,51000069	1,52745398	1,54490728	1,56236057
32	1,47538499	1,49283829	1,51029158	1,52774487	1,54519816	1,56265146
33	1,47567588	1,49312918	1,51058247	1,52803576	1,54548905	1,56294235
34	1,47596677	1,49342006	1,51087336	1,52832665	1,54577994	1,56323323
35	1,47625766	1,49371095	1,51116424	1,52861754	1,54607083	1,56352412
36	1,47654855	1,49400184	1,51145513	1,52890842	1,54636172	1,56381501
37	1,47683944	1,49429273	1,51174602	1,52919931	1,54665261	1,5641059
38	1,47713032	1,49458362	1,51203691	1,5294902	1,54694349	1,56439679
39	1,47742121	1,4948745	1,5123278	1,52978109	1,54723438	1,56468767
40	1,4777121	1,49516539	1,51261869	1,53007198	1,54752527	1,56497856
41	1,47800299	1,49545628	1,51290957	1,53036287	1,54781616	1,56526945
42	1,47829388	1,49574717	1,51320046	1,53065375	1,54810705	1,56556034
43	1,47858476	1,49603806	1,51349135	1,53094464	1,54839793	1,56585123
44	1,47887565	1,49632895	1,51378224	1,53123553	1,54868882	1,56614212
45	1,47916654	1,49661983	1,51407313	1,53152642	1,54897971	1,566433
46	1,47945743	1,49691072	1,51436401	1,53181731	1,5492706	1,56672389
47	1,47974832	1,49720161	1,5146549	1,5321082	1,54956149	1,56701478
48	1,48003921	1,4974925	1,51494579	1,53239908	1,54985238	1,56730567
49	1,48033009	1,49778339	1,51523668	1,53268997	1,55014326	1,56759656
50	1,48062098	1,49807427	1,51552757	1,53298086	1,55043415	1,56788744
51	1,48091187	1,49836516	1,51581846	1,53327175	1,55072504	1,56817833
52	1,48120276	1,49865605	1,51610934	1,53356264	1,55101593	1,56846922
53	1,48149365	1,49894694	1,51640023	1,53385352	1,55130682	1,56876011
54	1,48178453	1,49923783	1,51669112	1,53414441	1,55159771	1,569051
55	1,48207542	1,49952872	1,51698201	1,5344353	1,55188859	1,56934189
56	1,48236631	1,4998196	1,5172729	1,53472619	1,55217948	1,56963277
57	1,4826572	1,50011049	1,51756378	1,53501708	1,55247037	1,56992366
58	1,48294809	1,50040138	1,51785467	1,53530797	1,55276126	1,57021455
59	1,48323898	1,50069227	1,51814556	1,53559885	1,55305215	1,57050544
60	1,48352986	1,50098316	1,51843645	1,53588974	1,55334303	1,57079633

	90°	91°	92°	93°	94°	95°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	1,57079633	1,58824962	1,60570291	1,6231562	1,6406095	1,65806279
1	1,57108722	1,58854051	1,6059938	1,62344709	1,64090039	1,65835368
2	1,5713781	1,5888314	1,60628469	1,62373798	1,64119127	1,65864457
3	1,57166899	1,58912228	1,60657558	1,62402887	1,64148216	1,65893545
4	1,57195988	1,58941317	1,60686646	1,62431976	1,64177305	1,65922634
5	1,57225077	1,58970406	1,60715735	1,62461065	1,64206394	1,65951723
6	1,57254166	1,58999495	1,60744824	1,62490153	1,64235483	1,65980812
7	1,57283254	1,59028584	1,60773913	1,62519242	1,64264571	1,66009901
8	1,57312343	1,59057672	1,60803002	1,62548331	1,6429366	1,6603899
9	1,57341432	1,59086761	1,60832091	1,6257742	1,64322749	1,66068078
10	1,57370521	1,5911585	1,60861179	1,62606509	1,64351838	1,66097167
11	1,5739961	1,59144939	1,60890268	1,62635597	1,64380927	1,66126256
12	1,57428699	1,59174028	1,60919357	1,62664686	1,64410016	1,66155345
13	1,57457787	1,59203117	1,60948446	1,62693775	1,64439104	1,66184434
14	1,57486876	1,59232205	1,60977535	1,62722864	1,64468193	1,66213522
15	1,57515965	1,59261294	1,61006623	1,62751953	1,64497282	1,66242611
16	1,57545054	1,59290383	1,61035712	1,62781042	1,64526371	1,662717
17	1,57574143	1,59319472	1,61064801	1,6281013	1,6455546	1,66300789
18	1,57603231	1,59348561	1,6109389	1,62839219	1,64584548	1,66329878
19	1,5763232	1,5937765	1,61122979	1,62868308	1,64613637	1,66358967
20	1,57661409	1,59406738	1,61152068	1,62897397	1,64642726	1,66388055
21	1,57690498	1,59435827	1,61181156	1,62926486	1,64671815	1,66417144
22	1,57719587	1,59464916	1,61210245	1,62955574	1,64700904	1,66446233
23	1,57748676	1,59494005	1,61239334	1,62984663	1,64729993	1,66475322
24	1,57777764	1,59523094	1,61268423	1,63013752	1,64759081	1,66504411
25	1,57806853	1,59552182	1,61297512	1,63042841	1,6478817	1,66533499
26	1,57835942	1,59581271	1,61326601	1,6307193	1,64817259	1,66562588
27	1,57865031	1,5961036	1,61355689	1,63101019	1,64846348	1,66591677
28	1,5789412	1,59639449	1,61384778	1,63130107	1,64875437	1,66620766
29	1,57923208	1,59668538	1,61413867	1,63159196	1,64904525	1,66649855
30	1,57952297	1,59697627	1,61442956	1,63188285	1,64933614	1,66678944
31	1,57981386	1,59726715	1,61472045	1,63217374	1,64962703	1,66708032
32	1,58010475	1,59755804	1,61501133	1,63246463	1,64991792	1,66737121
33	1,58039564	1,59784893	1,61530222	1,63275552	1,65020881	1,6676621
34	1,58068653	1,59813982	1,61559311	1,6330464	1,6504997	1,66795299
35	1,58097741	1,59843071	1,615884	1,63333729	1,65079058	1,66824388
36	1,5812683	1,59872159	1,61617489	1,63362818	1,65108147	1,66853476
37	1,58155919	1,59901248	1,61646578	1,63391907	1,65137236	1,66882565
38	1,58185008	1,59930337	1,61675666	1,63420996	1,65166325	1,66911654
39	1,58214097	1,59959426	1,61704755	1,63450084	1,65195414	1,66940743
40	1,58243186	1,59988515	1,61733844	1,63479173	1,65224503	1,66969832
41	1,58272274	1,60017604	1,61762933	1,63508262	1,65253591	1,66998921
42	1,58301363	1,60046692	1,61792022	1,63537351	1,6528268	1,67028009
43	1,58330452	1,60075781	1,6182111	1,6356644	1,65311769	1,67057098
44	1,58359541	1,6010487	1,61850199	1,63595529	1,65340858	1,67086187
45	1,5838863	1,60133959	1,61879288	1,63624617	1,65369947	1,67115276
46	1,58417718	1,60163048	1,61908377	1,63653706	1,65399035	1,67144365
47	1,58446807	1,60192137	1,61937466	1,63682795	1,65428124	1,67173454
48	1,58475896	1,60221225	1,61966555	1,63711884	1,65457213	1,67202542
49	1,58504985	1,60250314	1,61995643	1,63740973	1,65486302	1,67231631
50	1,58534074	1,60279403	1,62024732	1,63770061	1,65515391	1,6726072
51	1,58563163	1,60308492	1,62053821	1,6379915	1,6554448	1,67289809
52	1,58592251	1,60337581	1,6208291	1,63828239	1,65573568	1,67318898
53	1,5862134	1,60366669	1,62111999	1,63857328	1,65602657	1,67347986
54	1,58650429	1,60395758	1,62141088	1,63886417	1,65631746	1,67377075
55	1,58679518	1,60424847	1,62170176	1,63915506	1,65660835	1,67406164
56	1,58708607	1,60453936	1,62199265	1,63944594	1,65689924	1,67435253
57	1,58737695	1,60483025	1,62228354	1,63973683	1,65719012	1,67464342
58	1,58766784	1,60512114	1,62257443	1,64002772	1,65748101	1,67493431
59	1,58795873	1,60541202	1,62286532	1,64031861	1,6577719	1,67522519
60	1,58824962	1,60570291	1,6231562	1,6406095	1,65806279	1,67551608

	96°	97°	98°	99°	100°	101°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	1,67551608	1,69296937	1,71042267	1,72787596	1,74532925	1,76278254
1	1,67580697	1,69326026	1,71071356	1,72816685	1,74562014	1,76307343
2	1,67609786	1,69355115	1,71100444	1,72845774	1,74591103	1,76336432
3	1,67638875	1,69384204	1,71129533	1,72874862	1,74620192	1,76365521
4	1,67667963	1,69413293	1,71158622	1,72903951	1,7464928	1,7639461
5	1,67697052	1,69442382	1,71187711	1,7293304	1,74678369	1,76423699
6	1,67726141	1,6947147	1,712168	1,72962129	1,74707458	1,76452787
7	1,6775523	1,69500559	1,71245888	1,72991218	1,74736547	1,76481876
8	1,67784319	1,69529648	1,71274977	1,73020307	1,74765636	1,76510965
9	1,67813408	1,69558737	1,71304066	1,73049395	1,74794725	1,76540054
10	1,67842496	1,69587826	1,71333155	1,73078484	1,74823813	1,76569143
11	1,67871585	1,69616914	1,71362244	1,73107573	1,74852902	1,76598231
12	1,67900674	1,69646003	1,71391333	1,73136662	1,74881991	1,7662732
13	1,67929763	1,69675092	1,71420421	1,73165751	1,7491108	1,76656409
14	1,67958852	1,69704181	1,7144951	1,73194839	1,74940169	1,76685498
15	1,67987941	1,6973327	1,71478599	1,73223928	1,74969258	1,76714587
16	1,68017029	1,69762359	1,71507688	1,73253017	1,74998346	1,76743676
17	1,68046118	1,69791447	1,71536777	1,73282106	1,75027435	1,76772764
18	1,68075207	1,69820536	1,71565865	1,73311195	1,75056524	1,76801853
19	1,68104296	1,69849625	1,71594954	1,73340284	1,75085613	1,76830942
20	1,68133385	1,69878714	1,71624043	1,73369372	1,75114702	1,76860031
21	1,68162473	1,69907803	1,71653132	1,73398461	1,7514379	1,7688912
22	1,68191562	1,69936892	1,71682221	1,7342755	1,75172879	1,76918209
23	1,68220651	1,6996598	1,7171131	1,73456639	1,75201968	1,76947297
24	1,6824974	1,69995069	1,71740398	1,73485728	1,75231057	1,76976386
25	1,68278829	1,70024158	1,71769487	1,73514816	1,75260146	1,77005475
26	1,68307918	1,70053247	1,71798576	1,73543905	1,75289235	1,77034564
27	1,68337006	1,70082336	1,71827665	1,73572994	1,75318323	1,77063653
28	1,68366095	1,70111424	1,71856754	1,73602083	1,75347412	1,77092741
29	1,68395184	1,70140513	1,71885843	1,73631172	1,75376501	1,7712183
30	1,68424273	1,70169602	1,71914931	1,73660261	1,7540559	1,77150919
31	1,68453362	1,70198691	1,7194402	1,73689349	1,75434679	1,77180008
32	1,6848245	1,7022778	1,71973109	1,73718438	1,75463767	1,77209097
33	1,68511539	1,70256869	1,72002198	1,73747527	1,75492856	1,77238186
34	1,68540628	1,70285957	1,72031287	1,73776616	1,75521945	1,77267274
35	1,68569717	1,70315046	1,72060375	1,73805705	1,75551034	1,77296363
36	1,68598806	1,70344135	1,72089464	1,73834793	1,75580123	1,77325452
37	1,68627895	1,70373224	1,72118553	1,73863882	1,75609212	1,77354541
38	1,68656983	1,70402313	1,72147642	1,73892971	1,756383	1,7738363
39	1,68686072	1,70431401	1,72176731	1,7392206	1,75667389	1,77412718
40	1,68715161	1,7046049	1,7220582	1,73951149	1,75696478	1,77441807
41	1,6874425	1,70489579	1,72234908	1,73980238	1,75725567	1,77470896
42	1,68773339	1,70518668	1,72263997	1,74009326	1,75754656	1,77499985
43	1,68802427	1,70547757	1,72293086	1,74038415	1,75783744	1,77529074
44	1,68831516	1,70576846	1,72322175	1,74067504	1,75812833	1,77558163
45	1,68860605	1,70605934	1,72351264	1,74096593	1,75841922	1,77587251
46	1,68889694	1,70635023	1,72380352	1,74125682	1,75871011	1,7761634
47	1,68918783	1,70664112	1,72409441	1,74154771	1,759001	1,77645429
48	1,68947872	1,70693201	1,7243853	1,74183859	1,75929189	1,77674518
49	1,6897696	1,7072229	1,72467619	1,74212948	1,75958277	1,77703607
50	1,69006049	1,70751378	1,72496708	1,74242037	1,75987366	1,77732695
51	1,69035138	1,70780467	1,72525797	1,74271126	1,76016455	1,77761784
52	1,69064227	1,70809556	1,72554885	1,74300215	1,76045544	1,77790873
53	1,69093316	1,70838645	1,72583974	1,74329303	1,76074633	1,77819962
54	1,69122405	1,70867734	1,72613063	1,74358392	1,76103722	1,77849051
55	1,69151493	1,70896823	1,72642152	1,74387481	1,7613281	1,7787814
56	1,69180582	1,70925911	1,72671241	1,7441657	1,76161899	1,77907228
57	1,69209671	1,70955	1,72700329	1,74445659	1,76190988	1,77936317
58	1,6923876	1,70984089	1,72729418	1,74474748	1,76220077	1,77965406
59	1,69267849	1,71013178	1,72758507	1,74503836	1,76249166	1,77994495
60	1,69296937	1,71042267	1,72787596	1,74532925	1,76278254	1,78023584

	102°	103°	104°	105°	106°	107°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	1,78023584	1,79768913	1,81514242	1,83259571	1,85004901	1,8675023
1	1,78052673	1,79798002	1,81543331	1,8328866	1,8503399	1,86779319
2	1,78081761	1,79827091	1,8157242	1,83317749	1,85063078	1,86808408
3	1,7811085	1,79856179	1,81601509	1,83346838	1,85092167	1,86837496
4	1,78139939	1,79885268	1,81630597	1,83375927	1,85121256	1,86866585
5	1,78169028	1,79914357	1,81659686	1,83405016	1,85150345	1,86895674
6	1,78198117	1,79943446	1,81688775	1,83434104	1,85179434	1,86924763
7	1,78227205	1,79972535	1,81717864	1,83463193	1,85208522	1,86953852
8	1,78256294	1,80001624	1,81746953	1,83492282	1,85237611	1,86982941
9	1,78285383	1,80030712	1,81776042	1,83521371	1,852667	1,87012029
10	1,78314472	1,80059801	1,8180513	1,8355046	1,85295789	1,87041118
11	1,78343561	1,8008889	1,81834219	1,83579548	1,85324878	1,87070207
12	1,7837265	1,80117979	1,81863308	1,83608637	1,85353967	1,87099296
13	1,78401738	1,80147068	1,81892397	1,83637726	1,85383055	1,87128385
14	1,78430827	1,80176156	1,81921486	1,83666815	1,85412144	1,87157473
15	1,78459916	1,80205245	1,81950575	1,83695904	1,85441233	1,87186562
16	1,78489005	1,80234334	1,81979663	1,83724993	1,85470322	1,87215651
17	1,78518094	1,80263423	1,82008752	1,83754081	1,85499411	1,8724474
18	1,78547182	1,80292512	1,82037841	1,8378317	1,85528499	1,87273829
19	1,78576271	1,80321601	1,8206693	1,83812259	1,85557588	1,87302918
20	1,7860536	1,80350689	1,82096019	1,83841348	1,85586677	1,87332006
21	1,78634449	1,80379778	1,82125107	1,83870437	1,85615766	1,87361095
22	1,78663538	1,80408867	1,82154196	1,83899526	1,85644855	1,87390184
23	1,78692627	1,80437956	1,82183285	1,83928614	1,85673944	1,87419273
24	1,78721715	1,80467045	1,82212374	1,83957703	1,85703032	1,87448362
25	1,78750804	1,80496133	1,82241463	1,83986792	1,85732121	1,8747745
26	1,78779893	1,80525222	1,82270552	1,84015881	1,8576121	1,87506539
27	1,78808982	1,80554311	1,8229964	1,8404497	1,85790299	1,87535628
28	1,78838071	1,805834	1,82328729	1,84074058	1,85819388	1,87564717
29	1,7886716	1,80612489	1,82357818	1,84103147	1,85848477	1,87593806
30	1,78896248	1,80641578	1,82386907	1,84132236	1,85877565	1,87622895
31	1,78925337	1,80670666	1,82415996	1,84161325	1,85906654	1,87651983
32	1,78954426	1,80699755	1,82445084	1,84190414	1,85935743	1,87681072
33	1,78983515	1,80728844	1,82474173	1,84219503	1,85964832	1,87710161
34	1,79012604	1,80757933	1,82503262	1,84248591	1,85993921	1,8773925
35	1,79041692	1,80787022	1,82532351	1,8427768	1,86023009	1,87768339
36	1,79070781	1,80816111	1,8256144	1,84306769	1,86052098	1,87797428
37	1,7909987	1,80845199	1,82590529	1,84335858	1,86081187	1,87826516
38	1,79128959	1,80874288	1,82619617	1,84364947	1,86110276	1,87855605
39	1,79158048	1,80903377	1,82648706	1,84394035	1,86139365	1,87884694
40	1,79187137	1,80932466	1,82677795	1,84423124	1,86168454	1,87913783
41	1,79216225	1,80961555	1,82706884	1,84452213	1,86197542	1,87942872
42	1,79245314	1,80990643	1,82735973	1,84481302	1,86226631	1,8797196
43	1,79274403	1,81019732	1,82765062	1,84510391	1,8625572	1,88001049
44	1,79303492	1,81048821	1,8279415	1,8453948	1,86284809	1,88030138
45	1,79332581	1,8107791	1,82823239	1,84568568	1,86313898	1,88059227
46	1,79361669	1,81106999	1,82852328	1,84597657	1,86342986	1,88088316
47	1,79390758	1,81136088	1,82881417	1,84626746	1,86372075	1,88117405
48	1,79419847	1,81165176	1,82910506	1,84655835	1,86401164	1,88146493
49	1,79448936	1,81194265	1,82939594	1,84684924	1,86430253	1,88175582
50	1,79478025	1,81223354	1,82968683	1,84714013	1,86459342	1,88204671
51	1,79507114	1,81252443	1,82997772	1,84743101	1,86488431	1,8823376
52	1,79536202	1,81281532	1,83026861	1,8477219	1,86517519	1,88262849
53	1,79565291	1,8131062	1,8305595	1,84801279	1,86546608	1,88291937
54	1,7959438	1,81339709	1,83085039	1,84830368	1,86575697	1,88321026
55	1,79623469	1,81368798	1,83114127	1,84859457	1,86604786	1,88350115
56	1,79652558	1,81397887	1,83143216	1,84888545	1,86633875	1,88379204
57	1,79681646	1,81426976	1,83172305	1,84917634	1,86662964	1,88408293
58	1,79710735	1,81456065	1,83201394	1,84946723	1,86692052	1,88437382
59	1,79739824	1,81485153	1,83230483	1,84975812	1,86721141	1,8846647
60	1,79768913	1,81514242	1,83259571	1,85004901	1,8675023	1,88495559

	108°	109°	110°	111°	112°	113°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	1,88495559	1,90240888	1,91986218	1,93731547	1,95476876	1,97222205
1	1,88524648	1,90269977	1,92015307	1,93760636	1,95505965	1,97251294
2	1,88553737	1,90299066	1,92044395	1,93789725	1,95535054	1,97280383
3	1,88582826	1,90328155	1,92073484	1,93818813	1,95564143	1,97309472
4	1,88611914	1,90357244	1,92102573	1,93847902	1,95593232	1,97338561
5	1,88641003	1,90386333	1,92131662	1,93876991	1,95622321	1,97367650
6	1,88670092	1,90415421	1,92160751	1,93906080	1,95651409	1,97396738
7	1,88699181	1,90444510	1,92189839	1,93935169	1,95680498	1,97425827
8	1,88728270	1,90473599	1,92218928	1,93964258	1,95709587	1,97454916
9	1,88757359	1,90502688	1,92248017	1,93993346	1,95738676	1,97484005
10	1,88786447	1,90531777	1,92277106	1,94022435	1,95767764	1,97513094
11	1,88815536	1,90560865	1,92306195	1,94051524	1,95796853	1,97542183
12	1,88844625	1,90589954	1,92335284	1,94080613	1,95825942	1,97571271
13	1,88873714	1,90619043	1,92364372	1,94109702	1,95855031	1,97600360
14	1,88902803	1,90648132	1,92393461	1,94138791	1,95884120	1,97629449
15	1,88931892	1,90677221	1,92422550	1,94167879	1,95913209	1,97658538
16	1,88960981	1,90706310	1,92451639	1,94196968	1,95942297	1,97687627
17	1,88990069	1,90735398	1,92480728	1,94226057	1,95971386	1,97716715
18	1,89019158	1,90764487	1,92509816	1,94255146	1,96000475	1,97745804
19	1,89048247	1,90793576	1,92538905	1,94284235	1,96029564	1,97774893
20	1,89077336	1,90822665	1,92567994	1,94313323	1,96058653	1,97803982
21	1,89106424	1,90851754	1,92597083	1,94342412	1,96087741	1,97833071
22	1,89135513	1,90880843	1,92626172	1,94371501	1,96116830	1,97862160
23	1,89164602	1,90909931	1,92655261	1,94400590	1,96145919	1,97891249
24	1,89193691	1,90939020	1,92684349	1,94429679	1,96175008	1,97920337
25	1,89222780	1,90968109	1,92713438	1,94458767	1,96204097	1,97949426
26	1,89251869	1,90997198	1,92742527	1,94487856	1,96233186	1,97978515
27	1,89280957	1,91026287	1,92771616	1,94516945	1,96262274	1,98007604
28	1,89310046	1,91055375	1,92800705	1,94546034	1,96291363	1,98036692
29	1,89339135	1,91084464	1,92829794	1,94575123	1,96320452	1,98065781
30	1,89368224	1,91113553	1,92858882	1,94604212	1,96349541	1,98094870
31	1,89397313	1,91142642	1,92887971	1,94633301	1,96378630	1,98123959
32	1,89426401	1,91171731	1,92917060	1,94662389	1,96407718	1,98153048
33	1,89455490	1,91200820	1,92946149	1,94691478	1,96436807	1,98182137
34	1,89484579	1,91229908	1,92975238	1,94720567	1,96465896	1,98211225
35	1,89513668	1,91258997	1,93004326	1,94749656	1,96494985	1,98240314
36	1,89542757	1,91288086	1,93033415	1,94778745	1,96524074	1,98269403
37	1,89571846	1,91317175	1,93062504	1,94807833	1,96553163	1,98298492
38	1,89600934	1,91346264	1,93091593	1,94836922	1,96582251	1,98327581
39	1,89630023	1,91375352	1,93120682	1,94866011	1,96611340	1,98356669
40	1,89659112	1,91404441	1,93149771	1,94895100	1,96640429	1,98385758
41	1,89688201	1,91433530	1,93178859	1,94924189	1,96669518	1,98414847
42	1,89717290	1,91462619	1,93207948	1,94953277	1,96698607	1,98443936
43	1,89746379	1,91491708	1,93237037	1,94982366	1,96727696	1,98473025
44	1,89775467	1,91520797	1,93266126	1,95011455	1,96756784	1,98502114
45	1,89804556	1,91549885	1,93295215	1,95040544	1,96785873	1,98531202
46	1,89833645	1,91578974	1,93324303	1,95069633	1,96814962	1,98560291
47	1,89862734	1,91608063	1,93353392	1,95098722	1,96844051	1,98589380
48	1,89891823	1,91637152	1,93382481	1,95127811	1,96873140	1,98618469
49	1,89920911	1,91666241	1,93411570	1,95156899	1,96902228	1,98647558
50	1,89950000	1,91695330	1,93440659	1,95185988	1,96931317	1,98676647
51	1,89979089	1,91724418	1,93469748	1,95215077	1,96960406	1,98705735
52	1,90008178	1,91753507	1,93498836	1,95244166	1,96989495	1,98734824
53	1,90037267	1,91782596	1,93527925	1,95273254	1,97018584	1,98763913
54	1,90066356	1,91811685	1,93557014	1,95302343	1,97047673	1,98793002
55	1,90095444	1,91840774	1,93586103	1,95331432	1,97076761	1,98822091
56	1,90124533	1,91869862	1,93615192	1,95360521	1,97105850	1,98851179
57	1,90153622	1,91898951	1,93644281	1,95389610	1,97134939	1,98880268
58	1,90182711	1,91928040	1,93673369	1,95418699	1,97164028	1,98909357
59	1,90211800	1,91957129	1,93702458	1,95447787	1,97193117	1,98938446
60	1,90240888	1,91986218	1,93731547	1,95476876	1,97222205	1,98967535

	114°	115°	116°	117°	118°	119°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	1,98967535	2,00712864	2,02458193	2,04203522	2,05948852	2,07694181
1	1,98996624	2,00741953	2,02487282	2,04232611	2,05977941	2,0772327
2	1,99025712	2,00771042	2,02516371	2,042617	2,06007029	2,07752359
3	1,99054801	2,0080013	2,0254546	2,04290789	2,06036118	2,07781447
4	1,9908389	2,00829219	2,02574549	2,04319878	2,06065207	2,07810536
5	1,99112979	2,00858308	2,02603637	2,04348967	2,06094296	2,07839625
6	1,99142068	2,00887397	2,02632726	2,04378055	2,06123385	2,07868714
7	1,99171156	2,00916486	2,02661815	2,04407144	2,06152473	2,07897803
8	1,99200245	2,00945575	2,02690904	2,04436233	2,06181562	2,07926892
9	1,99229334	2,00974663	2,02719993	2,04465322	2,06210651	2,0795598
10	1,99258423	2,01003752	2,02749081	2,04494411	2,0623974	2,07985069
11	1,99287512	2,01032841	2,0277817	2,045235	2,06268829	2,08014158
12	1,99316601	2,0106193	2,02807259	2,04552588	2,06297918	2,08043247
13	1,99345689	2,01091019	2,02836348	2,04581677	2,06327006	2,08072336
14	1,99374778	2,01120107	2,02865437	2,04610766	2,06356095	2,08101424
15	1,99403867	2,01149196	2,02894526	2,04639855	2,06385184	2,08130513
16	1,99432956	2,01178285	2,02923614	2,04668944	2,06414273	2,08159602
17	1,99462045	2,01207374	2,02952703	2,04698032	2,06443362	2,08188691
18	1,99491134	2,01236463	2,02981792	2,04727121	2,06472451	2,0821778
19	1,99520222	2,01265552	2,03010881	2,0475621	2,06501539	2,08246869
20	1,99549311	2,0129464	2,0303997	2,04785299	2,06530628	2,08275957
21	1,995784	2,01323729	2,03069058	2,04814388	2,06559717	2,08305046
22	1,99607489	2,01352818	2,03098147	2,04843477	2,06588806	2,08334135
23	1,99636578	2,01381907	2,03127236	2,04872565	2,06617895	2,08363224
24	1,99665666	2,01410996	2,03156325	2,04901654	2,06646983	2,08392313
25	1,99694755	2,01440085	2,03185414	2,04930743	2,06676072	2,08421402
26	1,99723844	2,01469173	2,03214503	2,04959832	2,06705161	2,0845049
27	1,99752933	2,01498262	2,03243591	2,04988921	2,0673425	2,08479579
28	1,99782022	2,01527351	2,0327268	2,05018009	2,06763339	2,08508668
29	1,99811111	2,0155644	2,03301769	2,05047098	2,06792428	2,08537757
30	1,99840199	2,01585529	2,03330858	2,05076187	2,06821516	2,08566846
31	1,99869288	2,01614617	2,03359947	2,05105276	2,06850605	2,08595934
32	1,99898377	2,01643706	2,03389035	2,05134365	2,06879694	2,08625023
33	1,99927466	2,01672795	2,03418124	2,05163454	2,06908783	2,08654112
34	1,99956555	2,01701884	2,03447213	2,05192542	2,06937872	2,08683201
35	1,99985643	2,01730973	2,03476302	2,05221631	2,0696696	2,0871229
36	2,00014732	2,01760062	2,03505391	2,0525072	2,06996049	2,08741379
37	2,00043821	2,0178915	2,0353448	2,05279809	2,07025138	2,08770467
38	2,0007291	2,01818239	2,03563568	2,05308898	2,07054227	2,08799556
39	2,00101999	2,01847328	2,03592657	2,05337986	2,07083316	2,08828645
40	2,00131088	2,01876417	2,03621746	2,05367075	2,07112405	2,08857734
41	2,00160176	2,01905506	2,03650835	2,05396164	2,07141493	2,08886823
42	2,00189265	2,01934594	2,03679924	2,05425253	2,07170582	2,08915911
43	2,00218354	2,01963683	2,03709013	2,05454342	2,07199671	2,08945
44	2,00247443	2,01992772	2,03738101	2,05483431	2,0722876	2,08974089
45	2,00276532	2,02021861	2,0376719	2,05512519	2,07257849	2,09003178
46	2,0030562	2,0205095	2,03796279	2,05541608	2,07286937	2,09032267
47	2,00334709	2,02080039	2,03825368	2,05570697	2,07316026	2,09061356
48	2,00363798	2,02109127	2,03854457	2,05599786	2,07345115	2,09090444
49	2,00392887	2,02138216	2,03883545	2,05628875	2,07374204	2,09119533
50	2,00421976	2,02167305	2,03912634	2,05657964	2,07403293	2,09148622
51	2,00451065	2,02196394	2,03941723	2,05687052	2,07432382	2,09177711
52	2,00480153	2,02225483	2,03970812	2,05716141	2,0746147	2,092068
53	2,00509242	2,02254571	2,03999901	2,0574523	2,07490559	2,09235888
54	2,00538331	2,0228366	2,0402899	2,05774319	2,07519648	2,09264977
55	2,0056742	2,02312749	2,04058078	2,05803408	2,07548737	2,09294066
56	2,00596509	2,02341838	2,04087167	2,05832496	2,07577826	2,09323155
57	2,00625598	2,02370927	2,04116256	2,05861585	2,07606915	2,09352244
58	2,00654686	2,02400016	2,04145345	2,05890674	2,07636003	2,09381333
59	2,00683775	2,02429104	2,04174434	2,05919763	2,07665092	2,09410421
60	2,00712864	2,02458193	2,04203522	2,05948852	2,07694181	2,0943951

	120°	121°	122°	123°	124°	125°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	2,0943951	2,11184839	2,12930169	2,14675498	2,16420827	2,18166156
1	2,09468599	2,11213928	2,12959258	2,14704587	2,16449916	2,18195245
2	2,09497688	2,11243017	2,12988346	2,14733676	2,16479005	2,18224334
3	2,09526777	2,11272106	2,13017435	2,14762764	2,16508094	2,18253423
4	2,09555866	2,11301195	2,13046524	2,14791853	2,16537183	2,18282512
5	2,09584954	2,11330284	2,13075613	2,14820942	2,16566271	2,18311601
6	2,09614043	2,11359372	2,13104702	2,14850031	2,16595360	2,18340689
7	2,09643132	2,11388461	2,13133791	2,14879120	2,16624449	2,18369778
8	2,09672221	2,11417550	2,13162879	2,14908209	2,16653538	2,18398867
9	2,09701310	2,11446639	2,13191968	2,14937297	2,16682627	2,18427956
10	2,09730398	2,11475728	2,13221057	2,14966386	2,16711715	2,18457045
11	2,09759487	2,11504817	2,13250146	2,14995475	2,16740804	2,18486134
12	2,09788576	2,11533905	2,13279235	2,15024564	2,16769893	2,18515222
13	2,09817665	2,11562994	2,13308323	2,15053653	2,16798982	2,18544311
14	2,09846754	2,11592083	2,13337412	2,15082741	2,16828071	2,18573400
15	2,09875843	2,11621172	2,13366501	2,15111830	2,16857160	2,18602489
16	2,09904931	2,11650261	2,13395590	2,15140919	2,16886248	2,18631578
17	2,09934020	2,11679349	2,13424679	2,15170008	2,16915337	2,18660666
18	2,09963109	2,11708438	2,13453768	2,15199097	2,16944426	2,18689755
19	2,09992198	2,11737527	2,13482856	2,15228186	2,16973515	2,18718844
20	2,10021287	2,11766616	2,13511945	2,15257274	2,17002604	2,18747933
21	2,10050375	2,11795705	2,13541034	2,15286363	2,17031692	2,18777022
22	2,10079464	2,11824794	2,13570123	2,15315452	2,17060781	2,18806111
23	2,10108553	2,11853882	2,13599212	2,15344541	2,17089870	2,18835199
24	2,10137642	2,11882971	2,13628301	2,15373630	2,17118959	2,18864288
25	2,10166731	2,11912060	2,13657389	2,15402719	2,17148048	2,18893377
26	2,10195820	2,11941149	2,13686478	2,15431807	2,17177137	2,18922466
27	2,10224908	2,11970238	2,13715567	2,15460896	2,17206225	2,18951555
28	2,10253997	2,11999326	2,13744656	2,15489985	2,17235314	2,18980643
29	2,10283086	2,12028415	2,13773745	2,15519074	2,17264403	2,19009732
30	2,10312175	2,12057504	2,13802833	2,15548163	2,17293492	2,19038821
31	2,10341264	2,12086593	2,13831922	2,15577251	2,17322581	2,19067910
32	2,10370353	2,12115682	2,13861011	2,15606340	2,17351670	2,19096999
33	2,10399441	2,12144771	2,13890100	2,15635429	2,17380758	2,19126088
34	2,10428530	2,12173859	2,13919189	2,15664518	2,17409847	2,19155176
35	2,10457619	2,12202948	2,13948277	2,15693607	2,17438936	2,19184265
36	2,10486708	2,12232037	2,13977366	2,15722696	2,17468025	2,19213354
37	2,10515797	2,12261126	2,14006455	2,15751784	2,17497114	2,19242443
38	2,10544885	2,12290215	2,14035544	2,15780873	2,17526202	2,19271532
39	2,10573974	2,12319304	2,14064633	2,15809962	2,17555291	2,19300621
40	2,10603063	2,12348392	2,14093722	2,15839051	2,17584380	2,19329710
41	2,10632152	2,12377481	2,14122811	2,15868140	2,17613469	2,19358799
42	2,10661241	2,12406570	2,14151899	2,15897228	2,17642558	2,19387888
43	2,10690330	2,12435659	2,14180988	2,15926317	2,17671647	2,19416976
44	2,10719418	2,12464748	2,14210077	2,15955406	2,17700735	2,19446065
45	2,10748507	2,12493836	2,14239166	2,15984495	2,17729824	2,19475153
46	2,10777596	2,12522925	2,14268255	2,16013584	2,17758913	2,19504242
47	2,10806685	2,12552014	2,14297343	2,16042673	2,17788002	2,19533331
48	2,10835774	2,12581103	2,14326432	2,16071761	2,17817091	2,19562420
49	2,10864862	2,12610192	2,14355521	2,16100850	2,17846179	2,19591509
50	2,10893951	2,12639281	2,14384610	2,16129939	2,17875268	2,19620598
51	2,10923040	2,12668369	2,14413699	2,16159028	2,17904357	2,19649686
52	2,10952129	2,12697458	2,14442787	2,16188117	2,17933446	2,19678775
53	2,10981218	2,12726547	2,14471876	2,16217206	2,17962535	2,19707864
54	2,11010307	2,12755636	2,14500965	2,16246294	2,17991624	2,19736953
55	2,11039395	2,12784725	2,14530054	2,16275383	2,18020712	2,19766042
56	2,11068484	2,12813813	2,14559143	2,16304472	2,18049801	2,19795131
57	2,11097573	2,12842902	2,14588232	2,16333561	2,18078889	2,19824219
58	2,11126662	2,12871991	2,14617321	2,16362650	2,18107979	2,19853308
59	2,11155751	2,12901080	2,14646409	2,16391738	2,18137068	2,19882397
60	2,11184839	2,12930169	2,14675498	2,16420827	2,18166156	2,19911486

	126°	127°	128°	129°	130°	131°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	2,19911486	2,21656815	2,23402144	2,25147474	2,26892803	2,28638132
1	2,19940575	2,21685904	2,23431233	2,25176562	2,26921892	2,28667221
2	2,19969663	2,21714993	2,23460322	2,25205651	2,2695098	2,2869631
3	2,19998752	2,21744081	2,23489411	2,2523474	2,26980069	2,28725398
4	2,20027841	2,2177317	2,235185	2,25263829	2,27009158	2,28754487
5	2,2005693	2,21802259	2,23547588	2,25292918	2,27038247	2,28783576
6	2,20086019	2,21831348	2,23576677	2,25322006	2,27067336	2,28812665
7	2,20115107	2,21860437	2,23605766	2,25351095	2,27096425	2,28841754
8	2,20144196	2,21889526	2,23634855	2,25380184	2,27125513	2,28870843
9	2,20173285	2,21918614	2,23663944	2,25409273	2,27154602	2,28899931
10	2,20202374	2,21947703	2,23693032	2,25438362	2,27183691	2,2892902
11	2,20231463	2,21976792	2,23722121	2,25467451	2,2721278	2,28958109
12	2,20260552	2,22005881	2,2375121	2,25496539	2,27241869	2,28987198
13	2,2028964	2,2203497	2,23780299	2,25525628	2,27270957	2,29016287
14	2,20318729	2,22064058	2,23809388	2,25554717	2,27300046	2,29045376
15	2,20347818	2,22093147	2,23838477	2,25583806	2,27329135	2,29074464
16	2,20376907	2,22122236	2,23867565	2,25612895	2,27358224	2,29103553
17	2,20405996	2,22151325	2,23896654	2,25641983	2,27387313	2,29132642
18	2,20435085	2,22180414	2,23925743	2,25671072	2,27416402	2,29161731
19	2,20464173	2,22209503	2,23954832	2,25700161	2,2744549	2,2919082
20	2,20493262	2,22238591	2,23983921	2,2572925	2,27474579	2,29219908
21	2,20522351	2,2226768	2,24013009	2,25758339	2,27503668	2,29248997
22	2,2055144	2,22296769	2,24042098	2,25787428	2,27532757	2,29278086
23	2,20580529	2,22325858	2,24071187	2,25816516	2,27561846	2,29307175
24	2,20609617	2,22354947	2,24100276	2,25845605	2,27590934	2,29336264
25	2,20638706	2,22384036	2,24129365	2,25874694	2,27620023	2,29365353
26	2,20667795	2,22413124	2,24158454	2,25903783	2,27649112	2,29394441
27	2,20696884	2,22442213	2,24187542	2,25932872	2,27678201	2,2942353
28	2,20725973	2,22471302	2,24216631	2,2596196	2,2770729	2,29452619
29	2,20755062	2,22500391	2,2424572	2,25991049	2,27736379	2,29481708
30	2,2078415	2,2252948	2,24274809	2,26020138	2,27765467	2,29510797
31	2,20813239	2,22558568	2,24303898	2,26049227	2,27794556	2,29539885
32	2,20842328	2,22587657	2,24332987	2,26078316	2,27823645	2,29568974
33	2,20871417	2,22616746	2,24362075	2,26107405	2,27852734	2,29598063
34	2,20900506	2,22645835	2,24391164	2,26136493	2,27881823	2,29627152
35	2,20929594	2,22674924	2,24420253	2,26165582	2,27910911	2,29656241
36	2,20958683	2,22704013	2,24449342	2,26194671	2,2794	2,2968533
37	2,20987772	2,22733101	2,24478431	2,2622376	2,27969089	2,29714418
38	2,21016861	2,2276219	2,24507519	2,26252849	2,27998178	2,29743507
39	2,2104595	2,22791279	2,24536608	2,26281938	2,28027267	2,29772596
40	2,21075039	2,22820368	2,24565697	2,26311026	2,28056356	2,29801685
41	2,21104127	2,22849457	2,24594786	2,26340115	2,28085444	2,29830774
42	2,21133216	2,22878545	2,24623875	2,26369204	2,28114533	2,29859862
43	2,21162305	2,22907634	2,24652964	2,26398293	2,28143622	2,29888951
44	2,21191394	2,22936723	2,24682052	2,26427382	2,28172711	2,2991804
45	2,21220483	2,22965812	2,24711141	2,2645647	2,282018	2,29947129
46	2,21249572	2,22994901	2,2474023	2,26485559	2,28230889	2,29976218
47	2,2127866	2,2302399	2,24769319	2,26514648	2,28259977	2,30005307
48	2,21307749	2,23053078	2,24798408	2,26543737	2,28289066	2,30034395
49	2,21336838	2,23082167	2,24827496	2,26572826	2,28318155	2,30063484
50	2,21365927	2,23111256	2,24856585	2,26601915	2,28347244	2,30092573
51	2,21395016	2,23140345	2,24885674	2,26631003	2,28376333	2,30121662
52	2,21424104	2,23169434	2,24914763	2,26660092	2,28405421	2,30150751
53	2,21453193	2,23198523	2,24943852	2,26689181	2,2843451	2,3017984
54	2,21482282	2,23227611	2,24972941	2,2671827	2,28463599	2,30208928
55	2,21511371	2,232567	2,25002029	2,26747359	2,28492688	2,30238017
56	2,2154046	2,23285789	2,25031118	2,26776447	2,28521777	2,30267106
57	2,21569549	2,23314878	2,25060207	2,26805536	2,28550866	2,30296195
58	2,21598637	2,23343967	2,25089296	2,26834625	2,28579954	2,30325284
59	2,21627726	2,23373055	2,25118385	2,26863714	2,28609043	2,30354372
60	2,21656815	2,23402144	2,25147474	2,26892803	2,28638132	2,30383461

	132°	133°	134°	135°	136°	137°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	2,30383461	2,32128791	2,3387412	2,35619449	2,37364778	2,39110108
1	2,3041255	2,32157879	2,33903209	2,35648538	2,37393867	2,39139196
2	2,30441639	2,32186968	2,33932297	2,35677627	2,37422956	2,39168285
3	2,30470728	2,32216057	2,33961386	2,35706715	2,37452045	2,39197374
4	2,30499817	2,32245146	2,33990475	2,35735804	2,37481134	2,39226463
5	2,30528905	2,32274235	2,34019564	2,35764893	2,37510222	2,39255552
6	2,30557994	2,32303323	2,34048653	2,35793982	2,37539311	2,3928464
7	2,30587083	2,32332412	2,34077742	2,35823071	2,375684	2,39313729
8	2,30616172	2,32361501	2,3410683	2,3585216	2,37597489	2,39342818
9	2,30645261	2,3239059	2,34135919	2,35881248	2,37626578	2,39371907
10	2,30674349	2,32419679	2,34165008	2,35910337	2,37655666	2,39400996
11	2,30703438	2,32448768	2,34194097	2,35939426	2,37684755	2,39430085
12	2,30732527	2,32477856	2,34223186	2,35968515	2,37713844	2,39459173
13	2,30761616	2,32506945	2,34252274	2,35997604	2,37742933	2,39488262
14	2,30790705	2,32536034	2,34281363	2,36026693	2,37772022	2,39517351
15	2,30819794	2,32565123	2,34310452	2,36055781	2,37801111	2,3954644
16	2,30848882	2,32594212	2,34339541	2,3608487	2,37830199	2,39575529
17	2,30877971	2,326233	2,3436863	2,36113959	2,37859288	2,39604617
18	2,3090706	2,32652389	2,34397719	2,36143048	2,37888377	2,39633706
19	2,30936149	2,32681478	2,34426807	2,36172137	2,37917466	2,39662795
20	2,30965238	2,32710567	2,34455896	2,36201225	2,37946555	2,39691884
21	2,30994327	2,32739656	2,34484985	2,36230314	2,37975644	2,39720973
22	2,31023415	2,32768745	2,34514074	2,36259403	2,38004732	2,39750062
23	2,31052504	2,32797833	2,34543163	2,36288492	2,38033821	2,3977915
24	2,31081593	2,32826922	2,34572251	2,36317581	2,3806291	2,39808239
25	2,31110682	2,32856011	2,3460134	2,3634667	2,38091999	2,39837328
26	2,31139771	2,328851	2,34630429	2,36375758	2,38121088	2,39866417
27	2,31168859	2,32914189	2,34659518	2,36404847	2,38150176	2,39895506
28	2,31197948	2,32943277	2,34688607	2,36433936	2,38179265	2,39924595
29	2,31227037	2,32972366	2,34717696	2,36463025	2,38208354	2,39953683
30	2,31256126	2,33001455	2,34746784	2,36492114	2,38237443	2,39982772
31	2,31285215	2,33030544	2,34775873	2,36521202	2,38266532	2,40011861
32	2,31314304	2,33059633	2,34804962	2,36550291	2,38295621	2,4004095
33	2,31343392	2,33088722	2,34834051	2,3657938	2,38324709	2,40070039
34	2,31372481	2,3311781	2,3486314	2,36608469	2,38353798	2,40099127
35	2,3140157	2,33146899	2,34892228	2,36637558	2,38382887	2,40128216
36	2,31430659	2,33175988	2,34921317	2,36666647	2,38411976	2,40157305
37	2,31459748	2,33205077	2,34950406	2,36695735	2,38441065	2,40186394
38	2,31488836	2,33234166	2,34979495	2,36724824	2,38470153	2,40215483
39	2,31517925	2,33263255	2,35008584	2,36753913	2,38499242	2,40244572
40	2,31547014	2,33292343	2,35037673	2,36783002	2,38528331	2,4027366
41	2,31576103	2,33321432	2,35066761	2,36812091	2,3855742	2,40302749
42	2,31605192	2,33350521	2,3509585	2,36841179	2,38586509	2,40331838
43	2,31634281	2,3337961	2,35124939	2,36870268	2,38615598	2,40360927
44	2,31663369	2,33408699	2,35154028	2,36899357	2,38644686	2,40390016
45	2,31692458	2,33437787	2,35183117	2,36928446	2,38673775	2,40419104
46	2,31721547	2,33466876	2,35212206	2,36957535	2,38702864	2,40448193
47	2,31750636	2,33495965	2,35241294	2,36986624	2,38731953	2,40477282
48	2,31779725	2,33525054	2,35270383	2,37015712	2,38761042	2,40506371
49	2,31808813	2,33554143	2,35299472	2,37044801	2,3879013	2,4053546
50	2,31837902	2,33583232	2,35328561	2,3707389	2,38819219	2,40564549
51	2,31866991	2,3361232	2,3535765	2,37102979	2,38848308	2,40593637
52	2,3189608	2,33641409	2,35386738	2,37132068	2,38877397	2,40622726
53	2,31925169	2,33670498	2,35415827	2,37161157	2,38906486	2,40651815
54	2,31954258	2,33699587	2,35444916	2,37190245	2,38935575	2,40680904
55	2,31983346	2,33728676	2,35474005	2,37219334	2,38964663	2,40709993
56	2,32012435	2,33757764	2,35503094	2,37248423	2,38993752	2,40739081
57	2,32041524	2,33786853	2,35532183	2,37277512	2,39022841	2,4076817
58	2,32070613	2,33815942	2,35561271	2,37306601	2,3905193	2,40797259
59	2,32099702	2,33845031	2,3559036	2,37335689	2,39081019	2,40826348
60	2,32128791	2,3387412	2,35619449	2,37364778	2,39110108	2,40855437

	138°	139°	140°	141°	142°	143°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	2,40855437	2,42600766	2,44346095	2,46091425	2,47836754	2,49582083
1	2,40884526	2,42629855	2,44375184	2,46120513	2,47865843	2,49611172
2	2,40913614	2,42658944	2,44404273	2,46149602	2,47894931	2,49640261
3	2,40942703	2,42688032	2,44433362	2,46178691	2,4792402	2,49669349
4	2,40971792	2,42717121	2,44462451	2,4620778	2,47953109	2,49698438
5	2,41000881	2,4274621	2,44491539	2,46236869	2,47982198	2,49727527
6	2,4102997	2,42775299	2,44520628	2,46265957	2,48011287	2,49756616
7	2,41059059	2,42804388	2,44549717	2,46295046	2,48040376	2,49785705
8	2,41088147	2,42833477	2,44578806	2,46324135	2,48069464	2,49814794
9	2,41117236	2,42862565	2,44607895	2,46353224	2,48098553	2,49843882
10	2,41146325	2,42891654	2,44636983	2,46382313	2,48127642	2,49872971
11	2,41175414	2,42920743	2,44666072	2,46411402	2,48156731	2,4990206
12	2,41204503	2,42949832	2,44695161	2,4644049	2,4818582	2,49931149
13	2,41233591	2,42978921	2,4472425	2,46469579	2,48214908	2,49960238
14	2,4126268	2,4300801	2,44753339	2,46498668	2,48243997	2,49989327
15	2,41291769	2,43037098	2,44782428	2,46527757	2,48273086	2,50018415
16	2,41320858	2,43066187	2,44811516	2,46556846	2,48302175	2,50047504
17	2,41349947	2,43095276	2,44840605	2,46585934	2,48331264	2,50076593
18	2,41379036	2,43124365	2,44869694	2,46615023	2,48360353	2,50105682
19	2,41408124	2,43153454	2,44898783	2,46644112	2,48389441	2,50134771
20	2,41437213	2,43182542	2,44927872	2,46673201	2,4841853	2,50163859
21	2,41466302	2,43211631	2,44956961	2,4670229	2,48447619	2,50192948
22	2,41495391	2,4324072	2,44986049	2,46731379	2,48476708	2,50222037
23	2,4152448	2,43269809	2,45015138	2,46760467	2,48505797	2,50251126
24	2,41553568	2,43298898	2,45044227	2,46789556	2,48534885	2,50280215
25	2,41582657	2,43327987	2,45073316	2,46818645	2,48563974	2,50309304
26	2,41611746	2,43357075	2,45102405	2,46847734	2,48593063	2,50338392
27	2,41640835	2,43386164	2,45131493	2,46876823	2,48622152	2,50367481
28	2,41669924	2,43415253	2,45160582	2,46905912	2,48651241	2,5039657
29	2,41699013	2,43444342	2,45189671	2,46935	2,4868033	2,50425659
30	2,41728101	2,43473431	2,4521876	2,46964089	2,48709418	2,50454748
31	2,4175719	2,43502519	2,45247849	2,46993178	2,48738507	2,50483836
32	2,41786279	2,43531608	2,45276938	2,47022267	2,48767596	2,50512925
33	2,41815368	2,43560697	2,45306026	2,47051356	2,48796685	2,50542014
34	2,41844457	2,43589786	2,45335115	2,47080444	2,48825774	2,50571103
35	2,41873546	2,43618875	2,45364204	2,47109533	2,48854863	2,50600192
36	2,41902634	2,43647964	2,45393293	2,47138622	2,48883951	2,50629281
37	2,41931723	2,43677052	2,45422382	2,47167711	2,4891304	2,50658369
38	2,41960812	2,43706141	2,4545147	2,471968	2,48942129	2,50687458
39	2,41989901	2,4373523	2,45480559	2,47225889	2,48971218	2,50716547
40	2,4201899	2,43764319	2,45509648	2,47254977	2,49000307	2,50745636
41	2,42048078	2,43793408	2,45538737	2,47284066	2,49029395	2,50774725
42	2,42077167	2,43822497	2,45567826	2,47313155	2,49058484	2,50803814
43	2,42106256	2,43851585	2,45596915	2,47342244	2,49087573	2,50832902
44	2,42135345	2,43880674	2,45626003	2,47371333	2,49116662	2,50861991
45	2,42164434	2,43909763	2,45655092	2,47400421	2,49145751	2,5089108
46	2,42193523	2,43938852	2,45684181	2,4742951	2,4917484	2,50920169
47	2,42222611	2,43967941	2,4571327	2,47458599	2,49203928	2,50949258
48	2,422517	2,43997029	2,45742359	2,47487688	2,49233017	2,50978346
49	2,42280789	2,44026118	2,45771448	2,47516777	2,49262106	2,51007435
50	2,42309878	2,44055207	2,45800536	2,47545866	2,49291195	2,51036524
51	2,42338967	2,44084296	2,45829625	2,47574954	2,49320284	2,51065613
52	2,42368055	2,44113385	2,45858714	2,47604043	2,49349372	2,51094702
53	2,42397144	2,44142474	2,45887803	2,47633132	2,49378461	2,51123791
54	2,42426233	2,44171562	2,45916892	2,47662221	2,4940755	2,51152879
55	2,42455322	2,44200651	2,4594598	2,4769131	2,49436639	2,51181968
56	2,42484411	2,4422974	2,45975069	2,47720398	2,49465728	2,51211057
57	2,425135	2,44258829	2,46004158	2,47749487	2,49494817	2,51240146
58	2,42542588	2,44287918	2,46033247	2,47778576	2,49523905	2,51269235
59	2,42571677	2,44317006	2,46062336	2,47807665	2,49552994	2,51298323
60	2,42600766	2,44346095	2,46091425	2,47836754	2,49582083	2,51327412

	144°	145°	146°	147°	148°	149°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	2,51327412	2,53072742	2,54818071	2,565634	2,58308729	2,60054059
1	2,51356501	2,5310183	2,5484716	2,56592489	2,58337818	2,60083147
2	2,5138559	2,53130919	2,54876248	2,56621578	2,58366907	2,60112236
3	2,51414679	2,53160008	2,54905337	2,56650667	2,58395996	2,60141325
4	2,51443768	2,53189097	2,54934426	2,56679755	2,58425085	2,60170414
5	2,51472856	2,53218186	2,54963515	2,56708844	2,58454173	2,60199503
6	2,51501945	2,53247274	2,54992604	2,56737933	2,58483262	2,60228591
7	2,51531034	2,53276363	2,55021693	2,56767022	2,58512351	2,6025768
8	2,51560123	2,53305452	2,55050781	2,56796111	2,5854144	2,60286769
9	2,51589212	2,53334541	2,5507987	2,56825199	2,58570529	2,60315858
10	2,516183	2,5336363	2,55108959	2,56854288	2,58599618	2,60344947
11	2,51647389	2,53392719	2,55138048	2,56883377	2,58628706	2,60374036
12	2,51676478	2,53421807	2,55167137	2,56912466	2,58657795	2,60403124
13	2,51705567	2,53450896	2,55196225	2,56941555	2,58686884	2,60432213
14	2,51734656	2,53479985	2,55225314	2,56970644	2,58715973	2,60461302
15	2,51763745	2,53509074	2,55254403	2,56999732	2,58745062	2,60490391
16	2,51792833	2,53538163	2,55283492	2,57028821	2,5877415	2,6051948
17	2,51821922	2,53567251	2,55312581	2,5705791	2,58803239	2,60548569
18	2,51851011	2,5359634	2,5534167	2,57086999	2,58832328	2,60577657
19	2,518801	2,53625429	2,55370758	2,57116088	2,58861417	2,60606746
20	2,51909189	2,53654518	2,55399847	2,57145176	2,58890506	2,60635835
21	2,51938278	2,53683607	2,55428936	2,57174265	2,58919595	2,60664924
22	2,51967366	2,53712696	2,55458025	2,57203354	2,58948683	2,60694013
23	2,51996455	2,53741784	2,55487114	2,57232443	2,58977772	2,60723101
24	2,52025544	2,53770873	2,55516202	2,57261532	2,59006861	2,6075219
25	2,52054633	2,53799962	2,55545291	2,57290621	2,5903595	2,60781279
26	2,52083722	2,53829051	2,5557438	2,57319709	2,59065039	2,60810368
27	2,5211281	2,5385814	2,55603469	2,57348798	2,59094127	2,60839457
28	2,52141899	2,53887229	2,55632558	2,57377887	2,59123216	2,60868546
29	2,52170988	2,53916317	2,55661647	2,57406976	2,59152305	2,60897634
30	2,52200077	2,53945406	2,55690735	2,57436065	2,59181394	2,60926723
31	2,52229166	2,53974495	2,55719824	2,57465153	2,59210483	2,60955812
32	2,52258255	2,54003584	2,55748913	2,57494242	2,59239572	2,60984901
33	2,52287343	2,54032673	2,55778002	2,57523331	2,5926866	2,6101399
34	2,52316432	2,54061761	2,55807091	2,5755242	2,59297749	2,61043078
35	2,52345521	2,5409085	2,5583618	2,57581509	2,59326838	2,61072167
36	2,5237461	2,54119939	2,55865268	2,57610598	2,59355927	2,61101256
37	2,52403699	2,54149028	2,55894357	2,57639686	2,59385016	2,61130345
38	2,52432787	2,54178117	2,55923446	2,57668775	2,59414104	2,61159434
39	2,52461876	2,54207206	2,55952535	2,57697864	2,59443193	2,61188523
40	2,52490965	2,54236294	2,55981624	2,57726953	2,59472282	2,61217611
41	2,52520054	2,54265383	2,56010712	2,57756042	2,59501371	2,612467
42	2,52549143	2,54294472	2,56039801	2,57785131	2,5953046	2,61275789
43	2,52578232	2,54323561	2,5606889	2,57814219	2,59559549	2,61304878
44	2,5260732	2,5435265	2,56097979	2,57843308	2,59588637	2,61333967
45	2,52636409	2,54381738	2,56127068	2,57872397	2,59617726	2,61363055
46	2,52665498	2,54410827	2,56156157	2,57901486	2,59646815	2,61392144
47	2,52694587	2,54439916	2,56185245	2,57930575	2,59675904	2,61421233
48	2,52723676	2,54469005	2,56214334	2,57959663	2,59704993	2,61450322
49	2,52752765	2,54498094	2,56243423	2,57988752	2,59734082	2,61479411
50	2,52781853	2,54527183	2,56272512	2,58017841	2,5976317	2,615085
51	2,52810942	2,54556271	2,56301601	2,5804693	2,59792259	2,61537588
52	2,52840031	2,5458536	2,56330689	2,58076019	2,59821348	2,61566677
53	2,5286912	2,54614449	2,56359778	2,58105108	2,59850437	2,61595766
54	2,52898209	2,54643538	2,56388867	2,58134196	2,59879526	2,61624855
55	2,52927297	2,54672627	2,56417956	2,58163285	2,59908614	2,61653944
56	2,52956386	2,54701716	2,56447045	2,58192374	2,59937703	2,61683033
57	2,52985475	2,54730804	2,56476134	2,58221463	2,59966792	2,61712121
58	2,53014564	2,54759893	2,56505222	2,58250552	2,59995881	2,6174121
59	2,53043653	2,54788982	2,56534311	2,5827964	2,6002497	2,61770299
60	2,53072742	2,54818071	2,565634	2,58308729	2,60054059	2,61799388

Minute	150° Radian	151° Radian	152° Radian	153° Radian	154° Radian	155° Radian
0	2,61799388	2,63544717	2,65290046	2,67035376	2,68780705	2,70526034
1	2,61828477	2,63573806	2,65319135	2,67064464	2,68809794	2,70555123
2	2,61857565	2,63602895	2,65348224	2,67093553	2,68838882	2,70584212
3	2,61886654	2,63631984	2,65377313	2,67122642	2,68867971	2,70613301
4	2,61915743	2,63661072	2,65406402	2,67151731	2,6889706	2,70642389
5	2,61944832	2,63690161	2,6543549	2,6718082	2,68926149	2,70671478
6	2,61973921	2,6371925	2,65464579	2,67209908	2,68955238	2,70700567
7	2,6200301	2,63748339	2,65493668	2,67238997	2,68984327	2,70729656
8	2,62032098	2,63777428	2,65522757	2,67268086	2,69013415	2,70758745
9	2,62061187	2,63806516	2,65551846	2,67297175	2,69042504	2,70787833
10	2,62090276	2,63835605	2,65580935	2,67326264	2,69071593	2,70816922
11	2,62119365	2,63864694	2,65610023	2,67355353	2,69100682	2,70846011
12	2,62148454	2,63893783	2,65639112	2,67384441	2,69129771	2,708751
13	2,62177542	2,63922872	2,65668201	2,6741353	2,69158859	2,70904189
14	2,62206631	2,63951961	2,6569729	2,67442619	2,69187948	2,70933278
15	2,6223572	2,63981049	2,65726379	2,67471708	2,69217037	2,70962366
16	2,62264809	2,64010138	2,65755467	2,67500797	2,69246126	2,70991455
17	2,62293898	2,64039227	2,65784556	2,67529886	2,69275215	2,71020544
18	2,62322987	2,64068316	2,65813645	2,67558974	2,69304304	2,71049633
19	2,62352075	2,64097405	2,65842734	2,67588063	2,69333392	2,71078722
20	2,62381164	2,64126493	2,65871823	2,67617152	2,69362481	2,7110781
21	2,62410253	2,64155582	2,65900912	2,67646241	2,6939157	2,71136899
22	2,62439342	2,64184671	2,6593	2,6767533	2,69420659	2,71165988
23	2,62468431	2,6421376	2,65959089	2,67704418	2,69449748	2,71195077
24	2,62497519	2,64242849	2,65988178	2,67733507	2,69478837	2,71224166
25	2,62526608	2,64271938	2,66017267	2,67762596	2,69507925	2,71253255
26	2,62555697	2,64301026	2,66046356	2,67791685	2,69537014	2,71282343
27	2,62584786	2,64330115	2,66075444	2,67820774	2,69566103	2,71311432
28	2,62613875	2,64359204	2,66104533	2,67849863	2,69595192	2,71340521
29	2,62642964	2,64388293	2,66133622	2,67878951	2,69624281	2,7136961
30	2,62672052	2,64417382	2,66162711	2,6790804	2,69653369	2,71398699
31	2,62701141	2,6444647	2,661918	2,67937129	2,69682458	2,71427788
32	2,6273023	2,64475559	2,66220889	2,67966218	2,69711547	2,71456876
33	2,62759319	2,64504648	2,66249977	2,67995307	2,69740636	2,71485965
34	2,62788408	2,64533737	2,66279066	2,68024395	2,69769725	2,71515054
35	2,62817497	2,64562826	2,66308155	2,68053484	2,69798814	2,71544143
36	2,62846585	2,64591915	2,66337244	2,68082573	2,69827902	2,71573232
37	2,62875674	2,64621003	2,66366333	2,68111662	2,69856991	2,7160232
38	2,62904763	2,64650092	2,66395421	2,68140751	2,6988608	2,71631409
39	2,62933852	2,64679181	2,6642451	2,6816984	2,69915169	2,71660498
40	2,62962941	2,6470827	2,66453599	2,68198928	2,69944258	2,71689587
41	2,62992029	2,64737359	2,66482688	2,68228017	2,69973346	2,71718676
42	2,63021118	2,64766448	2,66511777	2,68257106	2,70002435	2,71747765
43	2,63050207	2,64795536	2,66540866	2,68286195	2,70031524	2,71776853
44	2,63079296	2,64824625	2,66569954	2,68315284	2,70060613	2,71805942
45	2,63108385	2,64853714	2,66599043	2,68344372	2,70089702	2,71835031
46	2,63137474	2,64882803	2,66628132	2,68373461	2,70118791	2,7186412
47	2,63166562	2,64911892	2,66657221	2,6840255	2,70147879	2,71893209
48	2,63195651	2,6494098	2,6668631	2,68431639	2,70176968	2,71922297
49	2,6322474	2,64970069	2,66715399	2,68460728	2,70206057	2,71951386
50	2,63253829	2,64999158	2,66744487	2,68489817	2,70235146	2,71980475
51	2,63282918	2,65028247	2,66773576	2,68518905	2,70264235	2,72009564
52	2,63312006	2,65057336	2,66802665	2,68547994	2,70293323	2,72038653
53	2,63341095	2,65086425	2,66831754	2,68577083	2,70322412	2,72067742
54	2,63370184	2,65115513	2,66860843	2,68606172	2,70351501	2,7209683
55	2,63399273	2,65144602	2,66889931	2,68635261	2,7038059	2,72125919
56	2,63428362	2,65173691	2,6691902	2,6866435	2,70409679	2,72155008
57	2,63457451	2,6520278	2,66948109	2,68693438	2,70438768	2,72184097
58	2,63486539	2,65231869	2,66977198	2,68722527	2,70467856	2,72213186
59	2,63515628	2,65260957	2,67006287	2,68751616	2,70496945	2,72242274
60	2,63544717	2,65290046	2,67035376	2,68780705	2,70526034	2,72271363

	156°	157°	158°	159°	160°	161°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	2,72271363	2,74016693	2,75762022	2,77507351	2,7925268	2,8099801
1	2,72300452	2,74045781	2,75791111	2,7753644	2,79281769	2,81027098
2	2,72329541	2,7407487	2,75820199	2,77565529	2,79310858	2,81056187
3	2,7235863	2,74103959	2,75849288	2,77594618	2,79339947	2,81085276
4	2,72387719	2,74133048	2,75878377	2,77623706	2,79369036	2,81114365
5	2,72416807	2,74162137	2,75907466	2,77652795	2,79398124	2,81143454
6	2,72445896	2,74191225	2,75936555	2,77681884	2,79427213	2,81172542
7	2,72474985	2,74220314	2,75965644	2,77710973	2,79456302	2,81201631
8	2,72504074	2,74249403	2,75994732	2,77740062	2,79485391	2,8123072
9	2,72533163	2,74278492	2,76023821	2,7776915	2,7951448	2,81259809
10	2,72562252	2,74307581	2,7605291	2,77798239	2,79543569	2,81288898
11	2,7259134	2,7433667	2,76081999	2,77827328	2,79572657	2,81317987
12	2,72620429	2,74365758	2,76111088	2,77856417	2,79601746	2,81347075
13	2,72649518	2,74394847	2,76140176	2,77885506	2,79630835	2,81376164
14	2,72678607	2,74423936	2,76169265	2,77914595	2,79659924	2,81405253
15	2,72707696	2,74453025	2,76198354	2,77943683	2,79689013	2,81434342
16	2,72736784	2,74482114	2,76227443	2,77972772	2,79718101	2,81463431
17	2,72765873	2,74511203	2,76256532	2,78001861	2,7974719	2,8149252
18	2,72794962	2,74540291	2,76285621	2,7803095	2,79776279	2,81521608
19	2,72824051	2,7456938	2,76314709	2,78060039	2,79805368	2,81550697
20	2,7285314	2,74598469	2,76343798	2,78089127	2,79834457	2,81579786
21	2,72882229	2,74627558	2,76372887	2,78118216	2,79863546	2,81608875
22	2,72911317	2,74656647	2,76401976	2,78147305	2,79892634	2,81637964
23	2,72940406	2,74685735	2,76431065	2,78176394	2,79921723	2,81667052
24	2,72969495	2,74714824	2,76460154	2,78205483	2,79950812	2,81696141
25	2,72998584	2,74743913	2,76489242	2,78234572	2,79979901	2,8172523
26	2,73027673	2,74773002	2,76518331	2,7826366	2,8000899	2,81754319
27	2,73056761	2,74802091	2,7654742	2,78292749	2,80038078	2,81783408
28	2,7308585	2,7483118	2,76576509	2,78321838	2,80067167	2,81812497
29	2,73114939	2,74860268	2,76605598	2,78350927	2,80096256	2,81841585
30	2,73144028	2,74889357	2,76634686	2,78380016	2,80125345	2,81870674
31	2,73173117	2,74918446	2,76663775	2,78409105	2,80154434	2,81899763
32	2,73202206	2,74947535	2,76692864	2,78438193	2,80183523	2,81928852
33	2,73231294	2,74976624	2,76721953	2,78467282	2,80212611	2,81957941
34	2,73260383	2,75005712	2,76751042	2,78496371	2,802417	2,81987029
35	2,73289472	2,75034801	2,76780131	2,7852546	2,80270789	2,82016118
36	2,73318561	2,7506389	2,76809219	2,78554549	2,80299878	2,82045207
37	2,7334765	2,75092979	2,76838308	2,78583637	2,80328967	2,82074296
38	2,73376739	2,75122068	2,76867397	2,78612726	2,80358056	2,82103385
39	2,73405827	2,75151157	2,76896486	2,78641815	2,80387144	2,82132474
40	2,73434916	2,75180245	2,76925575	2,78670904	2,80416233	2,82161562
41	2,73464005	2,75209334	2,76954663	2,78699993	2,80445322	2,82190651
42	2,73493094	2,75238423	2,76983752	2,78729082	2,80474411	2,8221974
43	2,73522183	2,75267512	2,77012841	2,7875817	2,805035	2,82248829
44	2,73551271	2,75296601	2,7704193	2,78787259	2,80532588	2,82277918
45	2,7358036	2,7532569	2,77071019	2,78816348	2,80561677	2,82307007
46	2,73609449	2,75354778	2,77100108	2,78845437	2,80590766	2,82336095
47	2,73638538	2,75383867	2,77129196	2,78874526	2,80619855	2,82365184
48	2,73667627	2,75412956	2,77158285	2,78903614	2,80648944	2,82394273
49	2,73696716	2,75442045	2,77187374	2,78932703	2,80678033	2,82423362
50	2,73725804	2,75471134	2,77216463	2,78961792	2,80707121	2,82452451
51	2,73754893	2,75500222	2,77245552	2,78990881	2,8073621	2,82481539
52	2,73783982	2,75529311	2,77274641	2,7901997	2,80765299	2,82510628
53	2,73813071	2,755584	2,77303729	2,79049059	2,80794388	2,82539717
54	2,7384216	2,75587489	2,77332818	2,79078147	2,80823477	2,82568806
55	2,73871248	2,75616578	2,77361907	2,79107236	2,80852565	2,82597895
56	2,73900337	2,75645667	2,77390996	2,79136325	2,80881654	2,82626984
57	2,73929426	2,75674755	2,77420085	2,79165414	2,80910743	2,82656072
58	2,73958515	2,75703844	2,77449173	2,79194503	2,80939832	2,82685161
59	2,73987604	2,75732933	2,77478262	2,79223591	2,80968921	2,8271425
60	2,74016693	2,75762022	2,77507351	2,7925268	2,8099801	2,82743339

Minute	162° Radian	163° Radian	164° Radian	165° Radian	166° Radian	167° Radian
0	2,82743339	2,84488668	2,86233997	2,87979327	2,89724656	2,91469985
1	2,82772428	2,84517757	2,86263086	2,88008415	2,89753745	2,91499074
2	2,82801516	2,84546846	2,86292175	2,88037504	2,89782833	2,91528163
3	2,82830605	2,84575935	2,86321264	2,88066593	2,89811922	2,91557252
4	2,82859694	2,84605023	2,86350353	2,88095682	2,89841011	2,9158634
5	2,82888783	2,84634112	2,86379441	2,88124771	2,898701	2,91615429
6	2,82917872	2,84663201	2,8640853	2,8815386	2,89899189	2,91644518
7	2,82946961	2,8469229	2,86437619	2,88182948	2,89928278	2,91673607
8	2,82976049	2,84721379	2,86466708	2,88212037	2,89957366	2,91702696
9	2,83005138	2,84750467	2,86495797	2,88241126	2,89986455	2,91731784
10	2,83034227	2,84779556	2,86524886	2,88270215	2,90015544	2,91760873
11	2,83063316	2,84808645	2,86553974	2,88299304	2,90044633	2,91789962
12	2,83092405	2,84837734	2,86583063	2,88328392	2,90073722	2,91819051
13	2,83121493	2,84866823	2,86612152	2,88357481	2,90102811	2,9184814
14	2,83150582	2,84895912	2,86641241	2,8838657	2,90131899	2,91877229
15	2,83179671	2,84925	2,8667033	2,88415659	2,90160988	2,91906317
16	2,8320876	2,84954089	2,86699418	2,88444748	2,90190077	2,91935406
17	2,83237849	2,84983178	2,86728507	2,88473837	2,90219166	2,91964495
18	2,83266938	2,85012267	2,86757596	2,88502925	2,90248255	2,91993584
19	2,83296026	2,85041356	2,86786685	2,88532014	2,90277343	2,92022673
20	2,83325115	2,85070444	2,86815774	2,88561103	2,90306432	2,92051762
21	2,83354204	2,85099533	2,86844863	2,88590192	2,90335521	2,9208085
22	2,83383293	2,85128622	2,86873951	2,88619281	2,9036461	2,92109939
23	2,83412382	2,85157711	2,8690304	2,88648369	2,90393699	2,92139028
24	2,83441471	2,851868	2,86932129	2,88677458	2,90422788	2,92168117
25	2,83470559	2,85215889	2,86961218	2,88706547	2,90451876	2,92197206
26	2,83499648	2,85244977	2,86990307	2,88735636	2,90480965	2,92226294
27	2,83528737	2,85274066	2,87019395	2,88764725	2,90510054	2,92255383
28	2,83557826	2,85303155	2,87048484	2,88793814	2,90539143	2,92284472
29	2,83586915	2,85332244	2,87077573	2,88822902	2,90568232	2,92313561
30	2,83616003	2,85361333	2,87106662	2,88851991	2,9059732	2,9234265
31	2,83645092	2,85390422	2,87135751	2,8888108	2,90626409	2,92371739
32	2,83674181	2,8541951	2,8716484	2,88910169	2,90655498	2,92400827
33	2,8370327	2,85448599	2,87193928	2,88939258	2,90684587	2,92429916
34	2,83732359	2,85477688	2,87223017	2,88968346	2,90713676	2,92459005
35	2,83761448	2,85506777	2,87252106	2,88997435	2,90742765	2,92488094
36	2,83790536	2,85535866	2,87281195	2,89026524	2,90771853	2,92517183
37	2,83819625	2,85564954	2,87310284	2,89055613	2,90800942	2,92546271
38	2,83848714	2,85594043	2,87339373	2,89084702	2,90830031	2,9257536
39	2,83877803	2,85623132	2,87368461	2,89113791	2,9085912	2,92604449
40	2,83906892	2,85652221	2,8739755	2,89142879	2,90888209	2,92633538
41	2,8393598	2,8568131	2,87426639	2,89171968	2,90917297	2,92662627
42	2,83965069	2,85710399	2,87455728	2,89201057	2,90946386	2,92691716
43	2,83994158	2,85739487	2,87484817	2,89230146	2,90975475	2,92720804
44	2,84023247	2,85768576	2,87513905	2,89259235	2,91004564	2,92749893
45	2,84052336	2,85797665	2,87542994	2,89288324	2,91033653	2,92778982
46	2,84081425	2,85826754	2,87572083	2,89317412	2,91062742	2,92808071
47	2,84110513	2,85855843	2,87601172	2,89346501	2,9109183	2,9283716
48	2,84139602	2,85884931	2,87630261	2,8937559	2,91120919	2,92866248
49	2,84168691	2,8591402	2,8765935	2,89404679	2,91150008	2,92895337
50	2,8419778	2,85943109	2,87688438	2,89433768	2,91179097	2,92924426
51	2,84226869	2,85972198	2,87717527	2,89462856	2,91208186	2,92953515
52	2,84255958	2,86001287	2,87746616	2,89491945	2,91237275	2,92982604
53	2,84285046	2,86030376	2,87775705	2,89521034	2,91266363	2,93011693
54	2,84314135	2,86059464	2,87804794	2,89550123	2,91295452	2,93040781
55	2,84343224	2,86088553	2,87833882	2,89579212	2,91324541	2,9306987
56	2,84372313	2,86117642	2,87862971	2,89608301	2,9135363	2,93098959
57	2,84401402	2,86146731	2,8789206	2,89637389	2,91382719	2,93128048
58	2,8443049	2,8617582	2,87921149	2,89666478	2,91411807	2,93157137
59	2,84459579	2,86204909	2,87950238	2,89695567	2,91440896	2,93186226
60	2,84488668	2,86233997	2,87979327	2,89724656	2,91469985	2,93215314

	168°	169°	170°	171°	172°	173°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	2,93215314	2,94960644	2,96705973	2,98451302	3,00196631	3,01941961
1	2,93244403	2,94989732	2,96735062	2,98480391	3,0022572	3,01971049
2	2,93273492	2,95018821	2,9676415	2,9850948	3,00254809	3,02000138
3	2,93302581	2,9504791	2,96793239	2,98538569	3,00283898	3,02029227
4	2,9333167	2,95076999	2,96822328	2,98567657	3,00312987	3,02058316
5	2,93360758	2,95106088	2,96851417	2,98596746	3,00342075	3,02087405
6	2,93389847	2,95135177	2,96880506	2,98625835	3,00371164	3,02116494
7	2,93418936	2,95164265	2,96909595	2,98654924	3,00400253	3,02145582
8	2,93448025	2,95193354	2,96938683	2,98684013	3,00429342	3,02174671
9	2,93477114	2,95222443	2,96967772	2,98713101	3,00458431	3,0220376
10	2,93506203	2,95251532	2,96996861	2,9874219	3,0048752	3,02232849
11	2,93535291	2,95280621	2,9702595	2,98771279	3,00516608	3,02261938
12	2,9356438	2,95309709	2,97055039	2,98800368	3,00545697	3,02291026
13	2,93593469	2,95338798	2,97084128	2,98829457	3,00574786	3,02320115
14	2,93622558	2,95367887	2,97113216	2,98858546	3,00603875	3,02349204
15	2,93651647	2,95396976	2,97142305	2,98887634	3,00632964	3,02378293
16	2,93680735	2,95426065	2,97171394	2,98916723	3,00662052	3,02407382
17	2,93709824	2,95455154	2,97200483	2,98945812	3,00691141	3,02436471
18	2,93738913	2,95484242	2,97229572	2,98974901	3,0072023	3,02465559
19	2,93768002	2,95513331	2,9725866	2,9900399	3,00749319	3,02494648
20	2,93797091	2,9554242	2,97287749	2,99033079	3,00778408	3,02523737
21	2,9382618	2,95571509	2,97316838	2,99062167	3,00807497	3,02552826
22	2,93855268	2,95600598	2,97345927	2,99091256	3,00836585	3,02581915
23	2,93884357	2,95629686	2,97375016	2,99120345	3,00865674	3,02611003
24	2,93913446	2,95658775	2,97404105	2,99149434	3,00894763	3,02640092
25	2,93942535	2,95687864	2,97433193	2,99178523	3,00923852	3,02669181
26	2,93971624	2,95716953	2,97462282	2,99207611	3,00952941	3,0269827
27	2,94000712	2,95746042	2,97491371	2,992367	3,0098203	3,02727359
28	2,94029801	2,95775131	2,9752046	2,99265789	3,01011118	3,02756448
29	2,9405889	2,95804219	2,97549549	2,99294878	3,01040207	3,02785536
30	2,94087979	2,95833308	2,97578637	2,99323967	3,01069296	3,02814625
31	2,94117068	2,95862397	2,97607726	2,99353056	3,01098385	3,02843714
32	2,94146157	2,95891486	2,97636815	2,99382144	3,01127474	3,02872803
33	2,94175245	2,95920575	2,97665904	2,99411233	3,01156562	3,02901892
34	2,94204334	2,95949663	2,97694993	2,99440322	3,01185651	3,02930981
35	2,94233423	2,95978752	2,97724082	2,99469411	3,0121474	3,02960069
36	2,94262512	2,96007841	2,9775317	2,994985	3,01243829	3,02989158
37	2,94291601	2,9603693	2,97782259	2,99527588	3,01272918	3,03018247
38	2,9432069	2,96066019	2,97811348	2,99556677	3,01302007	3,03047336
39	2,94349778	2,96095108	2,97840437	2,99585766	3,01331095	3,03076425
40	2,94378867	2,96124196	2,97869526	2,99614855	3,01360184	3,03105513
41	2,94407956	2,96153285	2,97898614	2,99643944	3,01389273	3,03134602
42	2,94437045	2,96182374	2,97927703	2,99673033	3,01418362	3,03163691
43	2,94466134	2,96211463	2,97956792	2,99702121	3,01447451	3,0319278
44	2,94495222	2,96240552	2,97985881	2,9973121	3,01476539	3,03221869
45	2,94524311	2,96269641	2,9801497	2,99760299	3,01505628	3,03250958
46	2,945534	2,96298729	2,98044059	2,99789388	3,01534717	3,03280046
47	2,94582489	2,96327818	2,98073147	2,99818477	3,01563806	3,03309135
48	2,94611578	2,96356907	2,98102236	2,99847565	3,01592895	3,03338224
49	2,94640667	2,96385996	2,98131325	2,99876654	3,01621984	3,03367313
50	2,94669755	2,96415085	2,98160414	2,99905743	3,01651072	3,03396402
51	2,94698844	2,96444173	2,98189503	2,99934832	3,01680161	3,0342549
52	2,94727933	2,96473262	2,98218592	2,99963921	3,0170925	3,03454579
53	2,94757022	2,96502351	2,9824768	2,9999301	3,01738339	3,03483668
54	2,94786111	2,9653144	2,98276769	3,00022098	3,01767428	3,03512757
55	2,94815199	2,96560529	2,98305858	3,00051187	3,01796516	3,03541846
56	2,94844288	2,96589618	2,98334947	3,00080276	3,01825605	3,03570935
57	2,94873377	2,96618706	2,98364036	3,00109365	3,01854694	3,03600023
58	2,94902466	2,96647795	2,98393124	3,00138454	3,01883783	3,03629112
59	2,94931555	2,96676884	2,98422213	3,00167543	3,01912872	3,03658201
60	2,94960644	2,96705973	2,98451302	3,00196631	3,01941961	3,0368729

	174°	175°	176°	177°	178°	179°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	3,0368729	3,05432619	3,07177948	3,08923278	3,10668607	3,12413936
1	3,03716379	3,05461708	3,07207037	3,08952366	3,10697696	3,12443025
2	3,03745467	3,05490797	3,07236126	3,08981455	3,10726784	3,12472114
3	3,03774556	3,05519886	3,07265215	3,09010544	3,10755873	3,12501203
4	3,03803645	3,05548974	3,07294304	3,09039633	3,10784962	3,12530291
5	3,03832734	3,05578063	3,07323392	3,09068722	3,10814051	3,1255938
6	3,03861823	3,05607152	3,07352481	3,09097811	3,1084314	3,12588469
7	3,03890912	3,05636241	3,0738157	3,09126899	3,10872229	3,12617558
8	3,0392	3,0566533	3,07410659	3,09155988	3,10901317	3,12646647
9	3,03949089	3,05694418	3,07439748	3,09185077	3,10930406	3,12675735
10	3,03978178	3,05723507	3,07468837	3,09214166	3,10959495	3,12704824
11	3,04007267	3,05752596	3,07497925	3,09243255	3,10988584	3,12733913
12	3,04036356	3,05781685	3,07527014	3,09272343	3,11017673	3,12763002
13	3,04065445	3,05810774	3,07556103	3,09301432	3,11046762	3,12792091
14	3,04094533	3,05839863	3,07585192	3,09330521	3,1107585	3,1282118
15	3,04123622	3,05868951	3,07614281	3,0935961	3,11104939	3,12850268
16	3,04152711	3,0589804	3,07643369	3,09388699	3,11134028	3,12879357
17	3,041818	3,05927129	3,07672458	3,09417788	3,11163117	3,12908446
18	3,04210889	3,05956218	3,07701547	3,09446876	3,11192206	3,12937535
19	3,04239977	3,05985307	3,07730636	3,09475965	3,11221294	3,12966624
20	3,04269066	3,06014396	3,07759725	3,09505054	3,11250383	3,12995713
21	3,04298155	3,06043484	3,07788814	3,09534143	3,11279472	3,13024801
22	3,04327244	3,06072573	3,07817902	3,09563232	3,11308561	3,1305389
23	3,04356333	3,06101662	3,07846991	3,0959232	3,1133765	3,13082979
24	3,04385422	3,06130751	3,0787608	3,09621409	3,11366739	3,13112068
25	3,0441451	3,0615984	3,07905169	3,09650498	3,11395827	3,13141157
26	3,04443599	3,06188928	3,07934258	3,09679587	3,11424916	3,13170245
27	3,04472688	3,06218017	3,07963347	3,09708676	3,11454005	3,13199334
28	3,04501777	3,06247106	3,07992435	3,09737765	3,11483094	3,13228423
29	3,04530866	3,06276195	3,08021524	3,09766853	3,11512183	3,13257512
30	3,04559954	3,06305284	3,08050613	3,09795942	3,11541271	3,13286601
31	3,04589043	3,06334373	3,08079702	3,09825031	3,1157036	3,1331569
32	3,04618132	3,06363461	3,08108791	3,0985412	3,11599449	3,13344778
33	3,04647221	3,0639255	3,08137879	3,09883209	3,11628538	3,13373867
34	3,0467631	3,06421639	3,08166968	3,09912298	3,11657627	3,13402956
35	3,04705399	3,06450728	3,08196057	3,09941386	3,11686716	3,13432045
36	3,04734487	3,06479817	3,08225146	3,09970475	3,11715804	3,13461134
37	3,04763576	3,06508905	3,08254235	3,09999564	3,11744893	3,13490222
38	3,04792665	3,06537994	3,08283324	3,10028653	3,11773982	3,13519311
39	3,04821754	3,06567083	3,08312412	3,10057742	3,11803071	3,135484
40	3,04850843	3,06596172	3,08341501	3,1008683	3,1183216	3,13577489
41	3,04879932	3,06625261	3,0837059	3,10115919	3,11861249	3,13606578
42	3,0490902	3,0665435	3,08399679	3,10145008	3,11890337	3,13635667
43	3,04938109	3,06683438	3,08428768	3,10174097	3,11919426	3,13664755
44	3,04967198	3,06712527	3,08457856	3,10203186	3,11948515	3,13693844
45	3,04996287	3,06741616	3,08486945	3,10232275	3,11977604	3,13722933
46	3,05025376	3,06770705	3,08516034	3,10261363	3,12006693	3,13752022
47	3,05054464	3,06799794	3,08545123	3,10290452	3,12035781	3,13781111
48	3,05083553	3,06828883	3,08574212	3,10319541	3,1206487	3,138102
49	3,05112642	3,06857971	3,08603301	3,1034863	3,12093959	3,13839288
50	3,05141731	3,0688706	3,08632389	3,10377719	3,12123048	3,13868377
51	3,0517082	3,06916149	3,08661478	3,10406807	3,12152137	3,13897466
52	3,05199909	3,06945238	3,08690567	3,10435896	3,12181226	3,13926555
53	3,05228997	3,06974327	3,08719656	3,10464985	3,12210314	3,13955644
54	3,05258086	3,07003415	3,08748745	3,10494074	3,12239403	3,13984732
55	3,05287175	3,07032504	3,08777833	3,10523163	3,12268492	3,14013821
56	3,05316264	3,07061593	3,08806922	3,10552252	3,12297581	3,1404291
57	3,05345353	3,07090682	3,08836011	3,1058134	3,1232667	3,14071999
58	3,05374441	3,07119771	3,088651	3,10610429	3,12355758	3,14101088
59	3,0540353	3,0714886	3,08894189	3,10639518	3,12384847	3,14130177
60	3,05432619	3,07177948	3,08923278	3,10668607	3,12413936	3,14159265

	180°	181°	182°	183°	184°	185°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	3,14159265	3,15904595	3,17649924	3,19395253	3,21140582	3,22885912
1	3,14188354	3,15933683	3,17679013	3,19424342	3,21169671	3,22915
2	3,14217443	3,15962772	3,17708102	3,19453431	3,2119876	3,22944089
3	3,14246532	3,15991861	3,17737191	3,1948252	3,21227849	3,22973178
4	3,14275621	3,1602095	3,17766279	3,19511608	3,21256938	3,23002267
5	3,14304709	3,16050039	3,17795368	3,19540697	3,21286026	3,23031356
6	3,14333798	3,16079128	3,17824457	3,19569786	3,21315115	3,23060445
7	3,14362887	3,16108216	3,17853546	3,19598875	3,21344204	3,23089533
8	3,14391976	3,16137305	3,17882634	3,19627964	3,21373293	3,23118622
9	3,14421065	3,16166394	3,17911723	3,19657053	3,21402382	3,23147711
10	3,14450154	3,16195483	3,17940812	3,19686141	3,21431471	3,231768
11	3,14479242	3,16224572	3,17969901	3,1971523	3,21460559	3,23205889
12	3,14508331	3,1625366	3,1799899	3,19744319	3,21489648	3,23234977
13	3,1453742	3,16282749	3,18028079	3,19773408	3,21518737	3,23264066
14	3,14566509	3,16311838	3,18057167	3,19802497	3,21547826	3,23293155
15	3,14595598	3,16340927	3,18086256	3,19831585	3,21576915	3,23322244
16	3,14624686	3,16370016	3,18115345	3,19860674	3,21606004	3,23351333
17	3,14653775	3,16399105	3,18144434	3,19889763	3,21635092	3,23380422
18	3,14682864	3,16428193	3,18173523	3,19918852	3,21664181	3,2340951
19	3,14711953	3,16457282	3,18202611	3,19947941	3,2169327	3,23438599
20	3,14741042	3,16486371	3,182317	3,1997703	3,21722359	3,23467688
21	3,14770131	3,1651546	3,18260789	3,20006118	3,21751448	3,23496777
22	3,14799219	3,16544549	3,18289878	3,20035207	3,21780536	3,23525866
23	3,14828308	3,16573637	3,18318967	3,20064296	3,21809625	3,23554954
24	3,14857397	3,16602726	3,18348056	3,20093385	3,21838714	3,23584043
25	3,14886486	3,16631815	3,18377144	3,20122474	3,21867803	3,23613132
26	3,14915575	3,16660904	3,18406233	3,20151562	3,21896892	3,23642221
27	3,14944664	3,16689993	3,18435322	3,20180651	3,21925981	3,2367131
28	3,14973752	3,16719082	3,18464411	3,2020974	3,21955069	3,23700399
29	3,15002841	3,1674817	3,184935	3,20238829	3,21984158	3,23729487
30	3,1503193	3,16777259	3,18522588	3,20267918	3,22013247	3,23758576
31	3,15061019	3,16806348	3,18551677	3,20297007	3,22042336	3,23787665
32	3,15090108	3,16835437	3,18580766	3,20326095	3,22071425	3,23816754
33	3,15119196	3,16864526	3,18609855	3,20355184	3,22100513	3,23845843
34	3,15148285	3,16893615	3,18638944	3,20384273	3,22129602	3,23874932
35	3,15177374	3,16922703	3,18668033	3,20413362	3,22158691	3,2390402
36	3,15206463	3,16951792	3,18697121	3,20442451	3,2218778	3,23933109
37	3,15235552	3,16980881	3,1872621	3,20471539	3,22216869	3,23962198
38	3,15264641	3,1700997	3,18755299	3,20500628	3,22245958	3,23991287
39	3,15293729	3,17039059	3,18784388	3,20529717	3,22275046	3,24020376
40	3,15322818	3,17068147	3,18813477	3,20558806	3,22304135	3,24049464
41	3,15351907	3,17097236	3,18842566	3,20587895	3,22333224	3,24078553
42	3,15380996	3,17126325	3,18871654	3,20616984	3,22362313	3,24107642
43	3,15410085	3,17155414	3,18900743	3,20646072	3,22391402	3,24136731
44	3,15439173	3,17184503	3,18929832	3,20675161	3,2242049	3,2416582
45	3,15468262	3,17213592	3,18958921	3,2070425	3,22449579	3,24194909
46	3,15497351	3,1724268	3,1898801	3,20733339	3,22478668	3,24223997
47	3,1552644	3,17271769	3,19017098	3,20762428	3,22507757	3,24253086
48	3,15555529	3,17300858	3,19046187	3,20791517	3,22536846	3,24282175
49	3,15584618	3,17329947	3,19075276	3,20820605	3,22565935	3,24311264
50	3,15613706	3,17359036	3,19104365	3,20849694	3,22595023	3,24340353
51	3,15642795	3,17388124	3,19133454	3,20878783	3,22624112	3,24369441
52	3,15671884	3,17417213	3,19162543	3,20907872	3,22653201	3,2439853
53	3,15700973	3,17446302	3,19191631	3,20936961	3,2268229	3,24427619
54	3,15730062	3,17475391	3,1922072	3,20966049	3,22711379	3,24456708
55	3,15759151	3,1750448	3,19249809	3,20995138	3,22740468	3,24485797
56	3,15788239	3,17533569	3,19278898	3,21024227	3,22769556	3,24514886
57	3,15817328	3,17562657	3,19307987	3,21053316	3,22798645	3,24543974
58	3,15846417	3,17591746	3,19337075	3,21082405	3,22827734	3,24573063
59	3,15875506	3,17620835	3,19366164	3,21111494	3,22856823	3,24602152
60	3,15904595	3,17649924	3,19395253	3,21140582	3,22885912	3,24631241

	186°	187°	188°	189°	190°	191°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	3,24631241	3,2637657	3,28121899	3,29867229	3,31612558	3,33357887
1	3,2466033	3,26405659	3,28150988	3,29896317	3,31641647	3,33386976
2	3,24689419	3,26434748	3,28180077	3,29925406	3,31670736	3,33416065
3	3,24718507	3,26463837	3,28209166	3,29954495	3,31699824	3,33445154
4	3,24747596	3,26492925	3,28238255	3,29983584	3,31728913	3,33474242
5	3,24776685	3,26522014	3,28267343	3,30012673	3,31758002	3,33503331
6	3,24805774	3,26551103	3,28296432	3,30041762	3,31787091	3,33532420
7	3,24834863	3,26580192	3,28325521	3,3007085	3,3181618	3,33561509
8	3,24863951	3,26609281	3,2835461	3,30099939	3,31845268	3,33590598
9	3,2489304	3,2663837	3,28383699	3,30129028	3,31874357	3,33619687
10	3,24922129	3,26667458	3,28412788	3,30158117	3,31903446	3,33648775
11	3,24951218	3,26696547	3,28441876	3,30187206	3,31932535	3,33677864
12	3,24980307	3,26725636	3,28470965	3,30216294	3,31961624	3,33706953
13	3,25009396	3,26754725	3,28500054	3,30245383	3,31990713	3,33736042
14	3,25038484	3,26783814	3,28529143	3,30274472	3,32019801	3,33765131
15	3,25067573	3,26812902	3,28558232	3,30303561	3,3204889	3,33794219
16	3,25096662	3,26841991	3,28587321	3,3033265	3,32077979	3,33823308
17	3,25125751	3,2687108	3,28616409	3,30361739	3,32107068	3,33852397
18	3,2515484	3,26900169	3,28645498	3,30390827	3,32136157	3,33881486
19	3,25183928	3,26929258	3,28674587	3,30419916	3,32165245	3,33910575
20	3,25213017	3,26958347	3,28703676	3,30449005	3,32194334	3,33939664
21	3,25242106	3,26987435	3,28732765	3,30478094	3,32223423	3,33968752
22	3,25271195	3,27016524	3,28761853	3,30507183	3,32252512	3,33997841
23	3,25300284	3,27045613	3,28790942	3,30536272	3,32281601	3,3402693
24	3,25329373	3,27074702	3,28820031	3,3056536	3,3231069	3,34056019
25	3,25358461	3,27103791	3,2884912	3,30594449	3,32339778	3,34085108
26	3,2538755	3,27132879	3,28878209	3,30623538	3,32368867	3,34114196
27	3,25416639	3,27161968	3,28907298	3,30652627	3,32397956	3,34143285
28	3,25445728	3,27191057	3,28936386	3,30681716	3,32427045	3,34172374
29	3,25474817	3,27220146	3,28965475	3,30710804	3,32456134	3,34201463
30	3,25503905	3,27249235	3,28994564	3,30739893	3,32485223	3,34230552
31	3,25532994	3,27278324	3,29023653	3,30768982	3,32514311	3,34259641
32	3,25562083	3,27307412	3,29052742	3,30798071	3,325434	3,34288729
33	3,25591172	3,27336501	3,2908183	3,3082716	3,32572489	3,34317818
34	3,25620261	3,2736559	3,29110919	3,30856249	3,32601578	3,34346907
35	3,2564935	3,27394679	3,29140008	3,30885337	3,32630667	3,34375996
36	3,25678438	3,27423768	3,29169097	3,30914426	3,32659755	3,34405085
37	3,25707527	3,27452856	3,29198186	3,30943515	3,32688844	3,34434174
38	3,25736616	3,27481945	3,29227275	3,30972604	3,32717933	3,34463262
39	3,25765705	3,27511034	3,29256363	3,31001693	3,32747022	3,34492351
40	3,25794794	3,27540123	3,29285452	3,31030781	3,32776111	3,3452144
41	3,25823883	3,27569212	3,29314541	3,3105987	3,328052	3,34550529
42	3,25852971	3,27598301	3,2934363	3,31088959	3,32834288	3,34579618
43	3,2588206	3,27627389	3,29372719	3,31118048	3,32863377	3,34608706
44	3,25911149	3,27656478	3,29401807	3,31147137	3,32892466	3,34637795
45	3,25940238	3,27685567	3,29430896	3,31176226	3,32921555	3,34666884
46	3,25969327	3,27714656	3,29459985	3,31205314	3,32950644	3,34695973
47	3,25998415	3,27743745	3,29489074	3,31234403	3,32979732	3,34725062
48	3,26027504	3,27772834	3,29518163	3,31263492	3,33008821	3,34754151
49	3,26056593	3,27801922	3,29547252	3,31292581	3,3303791	3,34783239
50	3,26085682	3,27831011	3,2957634	3,3132167	3,33066999	3,34812328
51	3,26114771	3,278601	3,29605429	3,31350758	3,33096088	3,34841417
52	3,2614386	3,27889189	3,29634518	3,31379847	3,33125177	3,34870506
53	3,26172948	3,27918278	3,29663607	3,31408936	3,33154265	3,34899595
54	3,26202037	3,27947366	3,29692696	3,31438025	3,33183354	3,34928683
55	3,26231126	3,27976455	3,29721785	3,31467114	3,33212443	3,34957772
56	3,26260215	3,28005544	3,29750873	3,31496203	3,33241532	3,34986861
57	3,26289304	3,28034633	3,29779962	3,31525291	3,33270621	3,3501595
58	3,26318392	3,28063722	3,29809051	3,3155438	3,33299709	3,35045039
59	3,26347481	3,28092811	3,2983814	3,31583469	3,33328798	3,35074128
60	3,2637657	3,28121899	3,29867229	3,31612558	3,33357887	3,35103216

	192°	193°	194°	195°	196°	197°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	3,35103216	3,36848546	3,38593875	3,40339204	3,42084533	3,43829863
1	3,35132305	3,36877634	3,38622964	3,40368293	3,42113622	3,43858951
2	3,35161394	3,36906723	3,38652053	3,40397382	3,42142711	3,4388804
3	3,35190483	3,36935812	3,38681141	3,40426471	3,421718	3,43917129
4	3,35219572	3,36964901	3,3871023	3,40455559	3,42200889	3,43946218
5	3,3524866	3,3699399	3,38739319	3,40484648	3,42229977	3,43975307
6	3,35277749	3,37023079	3,38768408	3,40513737	3,42259066	3,44004396
7	3,35306838	3,37052167	3,38797497	3,40542826	3,42288155	3,44033484
8	3,35335927	3,37081256	3,38826585	3,40571915	3,42317244	3,44062573
9	3,35365016	3,37110345	3,38855674	3,40601004	3,42346333	3,44091662
10	3,35394105	3,37139434	3,38884763	3,40630092	3,42375422	3,44120751
11	3,35423193	3,37168523	3,38913852	3,40659181	3,4240451	3,4414984
12	3,35452282	3,37197611	3,38942941	3,4068827	3,42433599	3,44178928
13	3,35481371	3,372267	3,3897203	3,40717359	3,42462688	3,44208017
14	3,3551046	3,37255789	3,39001118	3,40746448	3,42491777	3,44237106
15	3,35539549	3,37284878	3,39030207	3,40775536	3,42520866	3,44266195
16	3,35568638	3,37313967	3,39059296	3,40804625	3,42549955	3,44295284
17	3,35597726	3,37343056	3,39088385	3,40833714	3,42579043	3,44324373
18	3,35626815	3,37372144	3,39117474	3,40862803	3,42608132	3,44353461
19	3,35655904	3,37401233	3,39146562	3,40891892	3,42637221	3,4438255
20	3,35684993	3,37430322	3,39175651	3,40920981	3,4266631	3,44411639
21	3,35714082	3,37459411	3,3920474	3,40950069	3,42695399	3,44440728
22	3,3574317	3,374885	3,39233829	3,40979158	3,42724487	3,44469817
23	3,35772259	3,37517589	3,39262918	3,41008247	3,42753576	3,44498906
24	3,35801348	3,37546677	3,39292007	3,41037336	3,42782665	3,44527994
25	3,35830437	3,37575766	3,39321095	3,41066425	3,42811754	3,44557083
26	3,35859526	3,37604855	3,39350184	3,41095513	3,42840843	3,44586172
27	3,35888615	3,37633944	3,39379273	3,41124602	3,42869932	3,44615261
28	3,35917703	3,37663033	3,39408362	3,41153691	3,4289902	3,4464435
29	3,35946792	3,37692121	3,39437451	3,4118278	3,42928109	3,44673438
30	3,35975881	3,3772121	3,3946654	3,41211869	3,42957198	3,44702527
31	3,3600497	3,37750299	3,39495628	3,41240958	3,42986287	3,44731616
32	3,36034059	3,37779388	3,39524717	3,41270046	3,43015376	3,44760705
33	3,36063147	3,37808477	3,39553806	3,41299135	3,43044464	3,44789794
34	3,36092236	3,37837566	3,39582895	3,41328224	3,43073553	3,44818883
35	3,36121325	3,37866654	3,39611984	3,41357313	3,43102642	3,44847971
36	3,36150414	3,37895743	3,39641072	3,41386402	3,43131731	3,4487706
37	3,36179503	3,37924832	3,39670161	3,41415491	3,4316082	3,44906149
38	3,36208592	3,37953921	3,3969925	3,41444579	3,43189909	3,44935238
39	3,3623768	3,3798301	3,39728339	3,41473668	3,43218997	3,44964327
40	3,36266769	3,38012098	3,39757428	3,41502757	3,43248086	3,44993415
41	3,36295858	3,38041187	3,39786517	3,41531846	3,43277175	3,45022504
42	3,36324947	3,38070276	3,39815605	3,41560935	3,43306264	3,45051593
43	3,36354036	3,38099365	3,39844694	3,41590023	3,43335353	3,45080682
44	3,36383125	3,38128454	3,39873783	3,41619112	3,43364442	3,45109771
45	3,36412213	3,38157543	3,39902872	3,41648201	3,4339353	3,4513886
46	3,36441302	3,38186631	3,39931961	3,4167729	3,43422619	3,45167948
47	3,36470391	3,3821572	3,39961049	3,41706379	3,43451708	3,45197037
48	3,3649948	3,38244809	3,39990138	3,41735468	3,43480797	3,45226126
49	3,36528569	3,38273898	3,40019227	3,41764556	3,43509886	3,45255215
50	3,36557657	3,38302987	3,40048316	3,41793645	3,43538974	3,45284304
51	3,36586746	3,38332075	3,40077405	3,41822734	3,43568063	3,45313393
52	3,36615835	3,38361164	3,40106494	3,41851823	3,43597152	3,45342481
53	3,36644924	3,38390253	3,40135582	3,41880912	3,43626241	3,4537157
54	3,36674013	3,38419342	3,40164671	3,4191	3,4365533	3,45400659
55	3,36703102	3,38448431	3,4019376	3,41939089	3,43684419	3,45429748
56	3,3673219	3,3847752	3,40222849	3,41968178	3,43713507	3,45458837
57	3,36761279	3,38506608	3,40251938	3,41997267	3,43742596	3,45487925
58	3,36790368	3,38535697	3,40281026	3,42026356	3,43771685	3,45517014
59	3,36819457	3,38564786	3,40310115	3,42055445	3,43800774	3,45546103
60	3,36848546	3,38593875	3,40339204	3,42084533	3,43829863	3,45575192

	198°	199°	200°	201°	202°	203°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	3,45575192	3,47320521	3,4906585	3,5081118	3,52556509	3,54301838
1	3,45604281	3,4734961	3,49094939	3,50840268	3,52585598	3,54330927
2	3,4563337	3,47378699	3,49124028	3,50869357	3,52614687	3,54360016
3	3,45662458	3,47407788	3,49153117	3,50898446	3,52643775	3,54389105
4	3,45691547	3,47436876	3,49182206	3,50927535	3,52672864	3,54418193
5	3,45720636	3,47465965	3,49211295	3,50956624	3,52701953	3,54447282
6	3,45749725	3,47495054	3,49240383	3,50985713	3,52731042	3,54476371
7	3,45778814	3,47524143	3,49269472	3,51014801	3,52760131	3,5450546
8	3,45807902	3,47553232	3,49298561	3,5104389	3,52789219	3,54534549
9	3,45836991	3,47582321	3,4932765	3,51072979	3,52818308	3,54563638
10	3,4586608	3,47611409	3,49356739	3,51102068	3,52847397	3,54592726
11	3,45895169	3,47640498	3,49385827	3,51131157	3,52876486	3,54621815
12	3,45924258	3,47669587	3,49414916	3,51160246	3,52905575	3,54650904
13	3,45953347	3,47698676	3,49444005	3,51189334	3,52934664	3,54679993
14	3,45982435	3,47727765	3,49473094	3,51218423	3,52963752	3,54709082
15	3,46011524	3,47756853	3,49502183	3,51247512	3,52992841	3,5473817
16	3,46040613	3,47785942	3,49531272	3,51276601	3,5302193	3,54767259
17	3,46069702	3,47815031	3,4956036	3,5130569	3,53051019	3,54796348
18	3,46098791	3,4784412	3,49589449	3,51334778	3,53080108	3,54825437
19	3,46127879	3,47873209	3,49618538	3,51363867	3,53109196	3,54854526
20	3,46156968	3,47902298	3,49647627	3,51392956	3,53138285	3,54883615
21	3,46186057	3,47931386	3,49676716	3,51422045	3,53167374	3,54912703
22	3,46215146	3,47960475	3,49705804	3,51451134	3,53196463	3,54941792
23	3,46244235	3,47989564	3,49734893	3,51480223	3,53225552	3,54970881
24	3,46273324	3,48018653	3,49763982	3,51509311	3,53254641	3,5499997
25	3,46302412	3,48047742	3,49793071	3,515384	3,53283729	3,55029059
26	3,46331501	3,4807683	3,4982216	3,51567489	3,53312818	3,55058147
27	3,4636059	3,48105919	3,49851249	3,51596578	3,53341907	3,55087236
28	3,46389679	3,48135008	3,49880337	3,51625667	3,53370996	3,55116325
29	3,46418768	3,48164097	3,49909426	3,51654755	3,53400085	3,55145414
30	3,46447857	3,48193186	3,49938515	3,51683844	3,53429174	3,55174503
31	3,46476945	3,48222275	3,49967604	3,51712933	3,53458262	3,55203592
32	3,46506034	3,48251363	3,49996693	3,51742022	3,53487351	3,5523268
33	3,46535123	3,48280452	3,50025781	3,51771111	3,5351644	3,55261769
34	3,46564212	3,48309541	3,5005487	3,518002	3,53545529	3,55290858
35	3,46593301	3,4833863	3,50083959	3,51829288	3,53574618	3,55319947
36	3,46622389	3,48367719	3,50113048	3,51858377	3,53603706	3,55349036
37	3,46651478	3,48396808	3,50142137	3,51887466	3,53632795	3,55378125
38	3,46680567	3,48425896	3,50171226	3,51916555	3,53661884	3,55407213
39	3,46709656	3,48454985	3,50200314	3,51945644	3,53690973	3,55436302
40	3,46738745	3,48484074	3,50229403	3,51974732	3,53720062	3,55465391
41	3,46767834	3,48513163	3,50258492	3,52003821	3,53749151	3,5549448
42	3,46796922	3,48542252	3,50287581	3,5203291	3,53778239	3,55523569
43	3,46826011	3,4857134	3,5031667	3,52061999	3,53807328	3,55552657
44	3,468551	3,48600429	3,50345759	3,52091088	3,53836417	3,55581746
45	3,46884189	3,48629518	3,50374847	3,52120177	3,53865506	3,55610835
46	3,46913278	3,48658607	3,50403936	3,52149265	3,53894595	3,55639924
47	3,46942366	3,48687696	3,50433025	3,52178354	3,53923683	3,55669013
48	3,46971455	3,48716785	3,50462114	3,52207443	3,53952772	3,55698102
49	3,47000544	3,48745873	3,50491203	3,52236532	3,53981861	3,5572719
50	3,47029633	3,48774962	3,50520291	3,52265621	3,5401095	3,55756279
51	3,47058722	3,48804051	3,5054938	3,5229471	3,54040039	3,55785368
52	3,47087811	3,4883314	3,50578469	3,52323798	3,54069128	3,55814457
53	3,47116899	3,48862229	3,50607558	3,52352887	3,54098216	3,55843546
54	3,47145988	3,48891317	3,50636647	3,52381976	3,54127305	3,55872634
55	3,47175077	3,48920406	3,50665736	3,52411065	3,54156394	3,55901723
56	3,47204166	3,48949495	3,50694824	3,52440154	3,54185483	3,55930812
57	3,47233255	3,48978584	3,50723913	3,52469242	3,54214572	3,55959901
58	3,47262344	3,49007673	3,50753002	3,52498331	3,54243661	3,5598899
59	3,47291432	3,49036762	3,50782091	3,5252742	3,54272749	3,56018079
60	3,47320521	3,4906585	3,5081118	3,52556509	3,54301838	3,56047167

	204°	205°	206°	207°	208°	209°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	3,56047167	3,57792497	3,59537826	3,61283155	3,63028484	3,64773814
1	3,56076256	3,57821585	3,59566915	3,61312244	3,63057573	3,64802902
2	3,56105345	3,57850674	3,59596004	3,61341333	3,63086662	3,64831991
3	3,56134434	3,57879763	3,59625092	3,61370422	3,63115751	3,6486108
4	3,56163523	3,57908852	3,59654181	3,6139951	3,6314484	3,64890169
5	3,56192612	3,57937941	3,5968327	3,61428599	3,63173929	3,64919258
6	3,562217	3,5796703	3,59712359	3,61457688	3,63203017	3,64948347
7	3,56250789	3,57996118	3,59741448	3,61486777	3,63232106	3,64977435
8	3,56279878	3,58025207	3,59770536	3,61515866	3,63261195	3,65006524
9	3,56308967	3,58054296	3,59799625	3,61544955	3,63290284	3,65035613
10	3,56338056	3,58083385	3,59828714	3,61574043	3,63319373	3,65064702
11	3,56367144	3,58112474	3,59857803	3,61603132	3,63348461	3,65093791
12	3,56396233	3,58141563	3,59886892	3,61632221	3,6337755	3,6512288
13	3,56425322	3,58170651	3,59915981	3,6166131	3,63406639	3,65151968
14	3,56454411	3,5819974	3,59945069	3,61690399	3,63435728	3,65181057
15	3,564835	3,58228829	3,59974158	3,61719487	3,63464817	3,65210146
16	3,56512589	3,58257918	3,60003247	3,61748576	3,63493906	3,65239235
17	3,56541677	3,58287007	3,60032336	3,61777665	3,63522994	3,65268324
18	3,56570766	3,58316095	3,60061425	3,61806754	3,63552083	3,65297412
19	3,56599855	3,58345184	3,60090514	3,61835843	3,63581172	3,65326501
20	3,56628944	3,58374273	3,60119602	3,61864932	3,63610261	3,6535559
21	3,56658033	3,58403362	3,60148691	3,6189402	3,6363935	3,65384679
22	3,56687121	3,58432451	3,6017778	3,61923109	3,63668438	3,65413768
23	3,5671621	3,5846154	3,60206869	3,61952198	3,63697527	3,65442857
24	3,56745299	3,58490628	3,60235958	3,61981287	3,63726616	3,65471945
25	3,56774388	3,58519717	3,60265046	3,62010376	3,63755705	3,65501034
26	3,56803477	3,58548806	3,60294135	3,62039465	3,63784794	3,65530123
27	3,56832566	3,58577895	3,60323224	3,62068553	3,63813883	3,65559212
28	3,56861654	3,58606984	3,60352313	3,62097642	3,63842971	3,65588301
29	3,56890743	3,58636072	3,60381402	3,62126731	3,6387206	3,65617389
30	3,56919832	3,58665161	3,60410491	3,6215582	3,63901149	3,65646478
31	3,56948921	3,5869425	3,60439579	3,62184909	3,63930238	3,65675567
32	3,5697801	3,58723339	3,60468668	3,62213997	3,63959327	3,65704656
33	3,57007098	3,58752428	3,60497757	3,62243086	3,63988416	3,65733745
34	3,57036187	3,58781517	3,60526846	3,62272175	3,64017504	3,65762834
35	3,57065276	3,58810605	3,60555935	3,62301264	3,64046593	3,65791922
36	3,57094365	3,58839694	3,60585023	3,62330353	3,64075682	3,65821011
37	3,57123454	3,58868783	3,60614112	3,62359442	3,64104771	3,658501
38	3,57152543	3,58897872	3,60643201	3,6238853	3,6413386	3,65879189
39	3,57181631	3,58926961	3,6067229	3,62417619	3,64162948	3,65908278
40	3,5721072	3,58956049	3,60701379	3,62446708	3,64192037	3,65937367
41	3,57239809	3,58985138	3,60730468	3,62475797	3,64221126	3,65966455
42	3,57268898	3,59014227	3,60759556	3,62504886	3,64250215	3,65995544
43	3,57297987	3,59043316	3,60788645	3,62533974	3,64279304	3,66024633
44	3,57327076	3,59072405	3,60817734	3,62563063	3,64308393	3,66053722
45	3,57356164	3,59101494	3,60846823	3,62592152	3,64337481	3,66082811
46	3,57385253	3,59130582	3,60875912	3,62621241	3,6436657	3,66111899
47	3,57414342	3,59159671	3,60905	3,6265033	3,64395659	3,66140988
48	3,57443431	3,5918876	3,60934089	3,62679419	3,64424748	3,66170077
49	3,5747252	3,59217849	3,60963178	3,62708507	3,64453837	3,66199166
50	3,57501608	3,59246938	3,60992267	3,62737596	3,64482925	3,66228255
51	3,57530697	3,59276027	3,61021356	3,62766685	3,64512014	3,66257344
52	3,57559786	3,59305115	3,61050445	3,62795774	3,64541103	3,66286432
53	3,57588875	3,59334204	3,61079533	3,62824863	3,64570192	3,66315521
54	3,57617964	3,59363293	3,61108622	3,62853951	3,64599281	3,6634461
55	3,57647053	3,59392382	3,61137711	3,6288304	3,6462837	3,66373699
56	3,57676141	3,59421471	3,611668	3,62912129	3,64657458	3,66402788
57	3,5770523	3,59450559	3,61195889	3,62941218	3,64686547	3,66431876
58	3,57734319	3,59479648	3,61224978	3,62970307	3,64715636	3,66460965
59	3,57763408	3,59508737	3,61254066	3,62999396	3,64744725	3,66490054
60	3,57792497	3,59537826	3,61283155	3,63028484	3,64773814	3,66519143

Minute	210° Radian	211° Radian	212° Radian	213° Radian	214° Radian	215° Radian
0	3,66519143	3,68264472	3,70009801	3,71755131	3,7350046	3,75245789
1	3,66548232	3,68293561	3,7003889	3,71784219	3,73529549	3,75274878
2	3,66577321	3,6832265	3,70067979	3,71813308	3,73558638	3,75303967
3	3,66606409	3,68351739	3,70097068	3,71842397	3,73587726	3,75333056
4	3,66635498	3,68380827	3,70126157	3,71871486	3,73616815	3,75362144
5	3,66664587	3,68409916	3,70155246	3,71900575	3,73645904	3,75391233
6	3,66693676	3,68439005	3,70184334	3,71929664	3,73674993	3,75420322
7	3,66722765	3,68468094	3,70213423	3,71958752	3,73704082	3,75449411
8	3,66751853	3,68497183	3,70242512	3,71987841	3,7373317	3,754785
9	3,66780942	3,68526272	3,70271601	3,7201693	3,73762259	3,75507589
10	3,66810031	3,6855536	3,7030069	3,72046019	3,73791348	3,75536677
11	3,6683912	3,68584449	3,70329778	3,72075108	3,73820437	3,75565766
12	3,66868209	3,68613538	3,70358867	3,72104197	3,73849526	3,75594855
13	3,66897298	3,68642627	3,70387956	3,72133285	3,73878615	3,75623944
14	3,66926386	3,68671716	3,70417045	3,72162374	3,73907703	3,75653033
15	3,66955475	3,68700804	3,70446134	3,72191463	3,73936792	3,75682121
16	3,66984564	3,68729893	3,70475223	3,72220552	3,73965881	3,7571121
17	3,67013653	3,68758982	3,70504311	3,72249641	3,7399497	3,75740299
18	3,67042742	3,68788071	3,705334	3,72278729	3,74024059	3,75769388
19	3,67071831	3,6881716	3,70562489	3,72307818	3,74053148	3,75798477
20	3,67100919	3,68846249	3,70591578	3,72336907	3,74082236	3,75827566
21	3,67130008	3,68875337	3,70620667	3,72365996	3,74111325	3,75856654
22	3,67159097	3,68904426	3,70649755	3,72395085	3,74140414	3,75885743
23	3,67188186	3,68933515	3,70678844	3,72424174	3,74169503	3,75914832
24	3,67217275	3,68962604	3,70707933	3,72453262	3,74198592	3,75943921
25	3,67246363	3,68991693	3,70737022	3,72482351	3,7422768	3,7597301
26	3,67275452	3,69020782	3,70766111	3,7251144	3,74256769	3,76002099
27	3,67304541	3,6904987	3,707952	3,72540529	3,74285858	3,76031187
28	3,6733363	3,69078959	3,70824288	3,72569618	3,74314947	3,76060276
29	3,67362719	3,69108048	3,70853377	3,72598706	3,74344036	3,76089365
30	3,67391808	3,69137137	3,70882466	3,72627795	3,74373125	3,76118454
31	3,67420896	3,69166226	3,70911555	3,72656884	3,74402213	3,76147543
32	3,67449985	3,69195314	3,70940644	3,72685973	3,74431302	3,76176631
33	3,67479074	3,69224403	3,70969733	3,72715062	3,74460391	3,7620572
34	3,67508163	3,69253492	3,70998821	3,72744151	3,7448948	3,76234809
35	3,67537252	3,69282581	3,7102791	3,72773239	3,74518569	3,76263898
36	3,6756634	3,6931167	3,71056999	3,72802328	3,74547657	3,76292987
37	3,67595429	3,69340759	3,71086088	3,72831417	3,74576746	3,76322076
38	3,67624518	3,69369847	3,71115177	3,72860506	3,74605835	3,76351164
39	3,67653607	3,69398936	3,71144265	3,72889595	3,74634924	3,76380253
40	3,67682696	3,69428025	3,71173354	3,72918684	3,74664013	3,76409342
41	3,67711785	3,69457114	3,71202443	3,72947772	3,74693102	3,76438431
42	3,67740873	3,69486203	3,71231532	3,72976861	3,7472219	3,7646752
43	3,67769962	3,69515291	3,71260621	3,7300595	3,74751279	3,76496608
44	3,67799051	3,6954438	3,7128971	3,73035039	3,74780368	3,76525697
45	3,6782814	3,69573469	3,71318798	3,73064128	3,74809457	3,76554786
46	3,67857229	3,69602558	3,71347887	3,73093216	3,74838546	3,76583875
47	3,67886317	3,69631647	3,71376976	3,73122305	3,74867635	3,76612964
48	3,67915406	3,69660736	3,71406065	3,73151394	3,74896723	3,76642053
49	3,67944495	3,69689824	3,71435154	3,73180483	3,74925812	3,76671141
50	3,67973584	3,69718913	3,71464242	3,73209572	3,74954901	3,7670023
51	3,68002673	3,69748002	3,71493331	3,73238661	3,7498399	3,76729319
52	3,68031762	3,69777091	3,7152242	3,73267749	3,75013079	3,76758408
53	3,6806085	3,6980618	3,71551509	3,73296838	3,75042167	3,76787497
54	3,68089939	3,69835268	3,71580598	3,73325927	3,75071256	3,76816586
55	3,68119028	3,69864357	3,71609687	3,73355016	3,75100345	3,76845674
56	3,68148117	3,69893446	3,71638775	3,73384105	3,75129434	3,76874763
57	3,68177206	3,69922535	3,71667864	3,73413193	3,75158523	3,76903852
58	3,68206295	3,69951624	3,71696953	3,73442282	3,75187612	3,76932941
59	3,68235383	3,69980713	3,71726042	3,73471371	3,752167	3,7696203
60	3,68264472	3,70009801	3,71755131	3,7350046	3,75245789	3,76991118

	216°	217°	218°	219°	220°	221°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	3,76991118	3,78736448	3,80481777	3,82227106	3,83972435	3,85717765
1	3,77020207	3,78765537	3,80510866	3,82256195	3,84001524	3,85746854
2	3,77049296	3,78794625	3,80539955	3,82285284	3,84030613	3,85775942
3	3,77078385	3,78823714	3,80569043	3,82314373	3,84059702	3,85805031
4	3,77107474	3,78852803	3,80598132	3,82343461	3,84088791	3,85834120
5	3,77136563	3,78881892	3,80627221	3,82372550	3,84117880	3,85863209
6	3,77165651	3,78910981	3,80656310	3,82401639	3,84146968	3,85892298
7	3,77194740	3,78940069	3,80685399	3,82430728	3,84176057	3,85921386
8	3,77223829	3,78969158	3,80714488	3,82459817	3,84205146	3,85950475
9	3,77252918	3,78998247	3,80743576	3,82488906	3,84234235	3,85979564
10	3,77282007	3,79027336	3,80772665	3,82517994	3,84263324	3,86008653
11	3,77311095	3,79056425	3,80801754	3,82547083	3,84292412	3,86037742
12	3,77340184	3,79085514	3,80830843	3,82576172	3,84321501	3,86066831
13	3,77369273	3,79114602	3,80859932	3,82605261	3,84350590	3,86095919
14	3,77398362	3,79143691	3,80889021	3,82634350	3,84379679	3,86125008
15	3,77427451	3,79172780	3,80918110	3,82663438	3,84408768	3,86154097
16	3,77456540	3,79201869	3,80947199	3,82692527	3,84437857	3,86183186
17	3,77485628	3,79230958	3,80976287	3,82721616	3,84466945	3,86212275
18	3,77514717	3,79260046	3,81005376	3,82750705	3,84496034	3,86241363
19	3,77543806	3,79289135	3,81034465	3,82779794	3,84525123	3,86270452
20	3,77572895	3,79318224	3,81063553	3,82808883	3,84554212	3,86299541
21	3,77601984	3,79347313	3,81092642	3,82837971	3,84583301	3,86328630
22	3,77631072	3,79376402	3,81121731	3,82867060	3,84612389	3,86357719
23	3,77660161	3,79405491	3,81150820	3,82896149	3,84641478	3,86386808
24	3,77689250	3,79434579	3,81179909	3,82925238	3,84670567	3,86415896
25	3,77718339	3,79463668	3,81208997	3,82954327	3,84699656	3,86444985
26	3,77747428	3,79492757	3,81238086	3,82983416	3,84728745	3,86474074
27	3,77776517	3,79521846	3,81267175	3,83012504	3,84757834	3,86503163
28	3,77805605	3,79550935	3,81296264	3,83041593	3,84786922	3,86532252
29	3,77834694	3,79580023	3,81325353	3,83070682	3,84816011	3,86561341
30	3,77863783	3,79609112	3,81354442	3,83099771	3,84845100	3,86590429
31	3,77892872	3,79638201	3,81383531	3,83128860	3,84874189	3,86619518
32	3,77921961	3,79667290	3,81412619	3,83157948	3,84903278	3,86648607
33	3,77951050	3,79696379	3,81441708	3,83187037	3,84932367	3,86677696
34	3,77980138	3,79725468	3,81470797	3,83216126	3,84961455	3,86706785
35	3,78009227	3,79754556	3,81499886	3,83245215	3,84990544	3,86735873
36	3,78038316	3,79783645	3,81528974	3,83274304	3,85019633	3,86764962
37	3,78067405	3,79812734	3,81558063	3,83303393	3,85048722	3,86794051
38	3,78096494	3,79841823	3,81587152	3,83332481	3,85077811	3,86823140
39	3,78125582	3,79870912	3,81616241	3,83361570	3,85106899	3,86852229
40	3,78154671	3,79900001	3,81645330	3,83390659	3,85135988	3,86881318
41	3,78183760	3,79929089	3,81674419	3,83419748	3,85165077	3,86910406
42	3,78212849	3,79958178	3,81703507	3,83448837	3,85194166	3,86939495
43	3,78241938	3,79987267	3,81732596	3,83477925	3,85223255	3,86968584
44	3,78271027	3,80016356	3,81761685	3,83507014	3,85252344	3,86997673
45	3,78300115	3,80045445	3,81790774	3,83536103	3,85281432	3,87026762
46	3,78329204	3,80074533	3,81819863	3,83565192	3,85310521	3,87055851
47	3,78358293	3,80103622	3,81848952	3,83594281	3,85339610	3,87084939
48	3,78387382	3,80132711	3,81878041	3,83623370	3,85368699	3,87114028
49	3,78416471	3,80161800	3,81907129	3,83652458	3,85397788	3,87143117
50	3,78445559	3,80190889	3,81936218	3,83681547	3,85426876	3,87172206
51	3,78474648	3,80219978	3,81965307	3,83710636	3,85455965	3,87201295
52	3,78503737	3,80249066	3,81994396	3,83739725	3,85485054	3,87230383
53	3,78532826	3,80278155	3,82023484	3,83768814	3,85514143	3,87259472
54	3,78561915	3,80307244	3,82052573	3,83797903	3,85543232	3,87288561
55	3,78591004	3,80336333	3,82081662	3,83826991	3,85572321	3,87317650
56	3,78620092	3,80365422	3,82110751	3,83856080	3,85601409	3,87346739
57	3,78649181	3,80394511	3,82139840	3,83885169	3,85630498	3,87375827
58	3,78678270	3,80423599	3,82168929	3,83914258	3,85659587	3,87404916
59	3,78707359	3,80452688	3,82198017	3,83943347	3,85688676	3,87434005
60	3,78736448	3,80481777	3,82227106	3,83972435	3,85717765	3,87463094

	222°	223°	224°	225°	226°	227°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	3,87463094	3,89208423	3,90953752	3,92699082	3,94444411	3,9618974
1	3,87492183	3,89237512	3,90982841	3,92728171	3,944735	3,96218829
2	3,87521272	3,89266601	3,9101193	3,92757259	3,94502589	3,96247918
3	3,8755036	3,8929569	3,91041019	3,92786348	3,94531677	3,96277007
4	3,87579449	3,89324778	3,91070108	3,92815437	3,94560766	3,96306095
5	3,87608538	3,89353867	3,91099197	3,92844526	3,94589855	3,96335184
6	3,87637627	3,89382956	3,91128285	3,92873615	3,94618944	3,96364273
7	3,87666716	3,89412045	3,91157374	3,92902703	3,94648033	3,96393362
8	3,87695805	3,89441134	3,91186463	3,92931792	3,94677122	3,96422451
9	3,87724893	3,89470223	3,91215552	3,92960881	3,9470621	3,9645154
10	3,87753982	3,89499311	3,91244641	3,9298997	3,94735299	3,96480628
11	3,87783071	3,895284	3,91273729	3,93019059	3,94764388	3,96509717
12	3,8781216	3,89557489	3,91302818	3,93048148	3,94793477	3,96538806
13	3,87841249	3,89586578	3,91331907	3,93077236	3,94822566	3,96567895
14	3,87870337	3,89615667	3,91360996	3,93106325	3,94851654	3,96596984
15	3,87899426	3,89644756	3,91390085	3,93135414	3,94880743	3,96626073
16	3,87928515	3,89673844	3,91419174	3,93164503	3,94909832	3,96655161
17	3,87957604	3,89702933	3,91448262	3,93193592	3,94938921	3,9668425
18	3,87986693	3,89732022	3,91477351	3,9322268	3,9496801	3,96713339
19	3,88015782	3,89761111	3,9150644	3,93251769	3,94997099	3,96742428
20	3,8804487	3,897902	3,91535529	3,93280858	3,95026187	3,96771517
21	3,88073959	3,89819288	3,91564618	3,93309947	3,95055276	3,96800605
22	3,88103048	3,89848377	3,91593707	3,93339036	3,95084365	3,96829694
23	3,88132137	3,89877466	3,91622795	3,93368125	3,95113454	3,96858783
24	3,88161226	3,89906555	3,91651884	3,93397213	3,95142543	3,96887872
25	3,88190314	3,89935644	3,91680973	3,93426302	3,95171631	3,96916961
26	3,88219403	3,89964733	3,91710062	3,93455391	3,9520072	3,9694605
27	3,88248492	3,89993821	3,91739151	3,9348448	3,95229809	3,96975138
28	3,88277581	3,9002291	3,91768239	3,93513569	3,95258898	3,97004227
29	3,8830667	3,90051999	3,91797328	3,93542658	3,95287987	3,97033316
30	3,88335759	3,90081088	3,91826417	3,93571746	3,95317076	3,97062405
31	3,88364847	3,90110177	3,91855506	3,93600835	3,95346164	3,97091494
32	3,88393936	3,90139265	3,91884595	3,93629924	3,95375253	3,97120582
33	3,88423025	3,90168354	3,91913684	3,93659013	3,95404342	3,97149671
34	3,88452114	3,90197443	3,91942772	3,93688102	3,95433431	3,9717876
35	3,88481203	3,90226532	3,91971861	3,9371719	3,9546252	3,97207849
36	3,88510291	3,90255621	3,9200095	3,93746279	3,95491609	3,97236938
37	3,8853938	3,9028471	3,92030039	3,93775368	3,95520697	3,97266027
38	3,88568469	3,90313798	3,92059128	3,93804457	3,95549786	3,97295115
39	3,88597558	3,90342887	3,92088216	3,93833546	3,95578875	3,97324204
40	3,88626647	3,90371976	3,92117305	3,93862635	3,95607964	3,97353293
41	3,88655736	3,90401065	3,92146394	3,93891723	3,95637053	3,97382382
42	3,88684824	3,90430154	3,92175483	3,93920812	3,95666141	3,97411471
43	3,88713913	3,90459242	3,92204572	3,93949901	3,9569523	3,97440559
44	3,88743002	3,90488331	3,92233661	3,9397899	3,95724319	3,97469648
45	3,88772091	3,9051742	3,92262749	3,94008079	3,95753408	3,97498737
46	3,8880118	3,90546509	3,92291838	3,94037167	3,95782497	3,97527826
47	3,88830269	3,90575598	3,92320927	3,94066256	3,95811586	3,97556915
48	3,88859357	3,90604687	3,92350016	3,94095345	3,95840674	3,97586004
49	3,88888446	3,90633775	3,92379105	3,94124434	3,95869763	3,97615092
50	3,88917535	3,90662864	3,92408193	3,94153523	3,95898852	3,97644181
51	3,88946624	3,90691953	3,92437282	3,94182612	3,95927941	3,9767327
52	3,88975713	3,90721042	3,92466371	3,942117	3,9595703	3,97702359
53	3,89004801	3,90750131	3,9249546	3,94240789	3,95986118	3,97731448
54	3,8903389	3,9077922	3,92524549	3,94269878	3,96015207	3,97760537
55	3,89062979	3,90808308	3,92553638	3,94298967	3,96044296	3,97789625
56	3,89092068	3,90837397	3,92582726	3,94328056	3,96073385	3,97818714
57	3,89121157	3,90866486	3,92611815	3,94357144	3,96102474	3,97847803
58	3,89150246	3,90895575	3,92640904	3,94386233	3,96131563	3,97876892
59	3,89179334	3,90924664	3,92669993	3,94415322	3,96160651	3,97905981
60	3,89208423	3,90953752	3,92699082	3,94444411	3,9618974	3,97935069

	228°	229°	230°	231°	232°	233°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	3,97935069	3,99680399	4,01425728	4,03171057	4,04916386	4,06661716
1	3,97964158	3,99709488	4,01454817	4,03200146	4,04945475	4,06690805
2	3,97993247	3,99738576	4,01483906	4,03229235	4,04974564	4,06719893
3	3,98022336	3,99767665	4,01512994	4,03258324	4,05003653	4,06748982
4	3,98051425	3,99796754	4,01542083	4,03287412	4,05032742	4,06778071
5	3,98080514	3,99825843	4,01571172	4,03316501	4,05061831	4,0680716
6	3,98109602	3,99854932	4,01600261	4,0334559	4,05090919	4,06836249
7	3,98138691	3,9988402	4,0162935	4,03374679	4,05120008	4,06865337
8	3,9816778	3,99913109	4,01658439	4,03403768	4,05149097	4,06894426
9	3,98196869	3,99942198	4,01687527	4,03432857	4,05178186	4,06923515
10	3,98225958	3,99971287	4,01716616	4,03461945	4,05207275	4,06952604
11	3,98255046	4,00000376	4,01745705	4,03491034	4,05236363	4,06981693
12	3,98284135	4,00029465	4,01774794	4,03520123	4,05265452	4,07010782
13	3,98313224	4,00058553	4,01803883	4,03549212	4,05294541	4,0703987
14	3,98342313	4,00087642	4,01832971	4,03578301	4,0532363	4,07068959
15	3,98371402	4,00116731	4,0186206	4,0360739	4,05352719	4,07098048
16	3,98400491	4,0014582	4,01891149	4,03636478	4,05381808	4,07127137
17	3,98429579	4,00174909	4,01920238	4,03665567	4,05410896	4,07156226
18	3,98458668	4,00203997	4,01949327	4,03694656	4,05439985	4,07185314
19	3,98487757	4,00233086	4,01978416	4,03723745	4,05469074	4,07214403
20	3,98516846	4,00262175	4,02007504	4,03752834	4,05498163	4,07243492
21	3,98545935	4,00291264	4,02036593	4,03781922	4,05527252	4,07272581
22	3,98575024	4,00320353	4,02065682	4,03811011	4,05556341	4,0730167
23	3,98604112	4,00349442	4,02094771	4,038401	4,05585429	4,07330759
24	3,98633201	4,0037853	4,0212386	4,03869189	4,05614518	4,07359847
25	3,9866229	4,00407619	4,02152948	4,03898278	4,05643607	4,07388936
26	3,98691379	4,00436708	4,02182037	4,03927367	4,05672696	4,07418025
27	3,98720468	4,00465797	4,02211126	4,03956455	4,05701785	4,07447114
28	3,98749556	4,00494886	4,02240215	4,03985544	4,05730873	4,07476203
29	3,98778645	4,00523975	4,02269304	4,04014633	4,05759962	4,07505292
30	3,98807734	4,00553063	4,02298393	4,04043722	4,05789051	4,0753438
31	3,98836823	4,00582152	4,02327481	4,04072811	4,0581814	4,07563469
32	3,98865912	4,00611241	4,0235657	4,04101899	4,05847229	4,07592558
33	3,98895001	4,0064033	4,02385659	4,04130988	4,05876318	4,07621647
34	3,98924089	4,00669419	4,02414748	4,04160077	4,05905406	4,07650736
35	3,98953178	4,00698507	4,02443837	4,04189166	4,05934495	4,07679824
36	3,98982267	4,00727596	4,02472926	4,04218255	4,05963584	4,07708913
37	3,99011356	4,00756685	4,02502014	4,04247344	4,05992673	4,07738002
38	3,99040445	4,00785774	4,02531103	4,04276432	4,06021762	4,07767091
39	3,99069533	4,00814863	4,02560192	4,04305521	4,0605085	4,0779618
40	3,99098622	4,00843952	4,02589281	4,0433461	4,06079939	4,07825269
41	3,99127711	4,0087304	4,0261837	4,04363699	4,06109028	4,07854357
42	3,991568	4,00902129	4,02647458	4,04392788	4,06138117	4,07883446
43	3,99185889	4,00931218	4,02676547	4,04421877	4,06167206	4,07912535
44	3,99214978	4,00960307	4,02705636	4,04450965	4,06196295	4,07941624
45	3,99244066	4,00989396	4,02734725	4,04480054	4,06225383	4,07970713
46	3,99273155	4,01018484	4,02763814	4,04509143	4,06254472	4,07999801
47	3,99302244	4,01047573	4,02792903	4,04538232	4,06283561	4,0802889
48	3,99331333	4,01076662	4,02821991	4,04567321	4,0631265	4,08057979
49	3,99360422	4,01105751	4,0285108	4,04596409	4,06341739	4,08087068
50	3,9938951	4,0113484	4,02880169	4,04625498	4,06370828	4,08116157
51	3,99418599	4,01163929	4,02909258	4,04654587	4,06399916	4,08145246
52	3,99447688	4,01193017	4,02938347	4,04683676	4,06429005	4,08174334
53	3,99476777	4,01222106	4,02967435	4,04712765	4,06458094	4,08203423
54	3,99505866	4,01251195	4,02996524	4,04741854	4,06487183	4,08232512
55	3,99534955	4,01280284	4,03025613	4,04770942	4,06516272	4,08261601
56	3,99564043	4,01309373	4,03054702	4,04800031	4,0654536	4,0829069
57	3,99593132	4,01338461	4,03083791	4,0482912	4,06574449	4,08319779
58	3,99622221	4,0136755	4,0311288	4,04858209	4,06603538	4,08348867
59	3,9965131	4,01396639	4,03141968	4,04887298	4,06632627	4,08377956
60	3,99680399	4,01425728	4,03171057	4,04916386	4,06661716	4,08407045

	234°	235°	236°	237°	238°	239°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	4,08407045	4,10152374	4,11897703	4,13643033	4,15388362	4,17133691
1	4,08436134	4,10181463	4,11926792	4,13672122	4,15417451	4,1716278
2	4,08465223	4,10210552	4,11955881	4,1370121	4,1544654	4,17191869
3	4,08494311	4,10239641	4,1198497	4,13730299	4,15475628	4,17220958
4	4,085234	4,1026873	4,12014059	4,13759388	4,15504717	4,17250047
5	4,08552489	4,10297818	4,12043148	4,13788477	4,15533806	4,17279135
6	4,08581578	4,10326907	4,12072236	4,13817566	4,15562895	4,17308224
7	4,08610667	4,10355996	4,12101325	4,13846654	4,15591984	4,17337313
8	4,08639756	4,10385085	4,12130414	4,13875743	4,15621073	4,17366402
9	4,08668844	4,10414174	4,12159503	4,13904832	4,15650161	4,17395491
10	4,08697933	4,10443262	4,12188592	4,13933921	4,1567925	4,17424579
11	4,08727022	4,10472351	4,12217681	4,1396301	4,15708339	4,17453668
12	4,08756111	4,1050144	4,12246769	4,13992099	4,15737428	4,17482757
13	4,087852	4,10530529	4,12275858	4,14021187	4,15766517	4,17511846
14	4,08814288	4,10559618	4,12304947	4,14050276	4,15795605	4,17540935
15	4,08843377	4,10588707	4,12334036	4,14079365	4,15824694	4,17570024
16	4,08872466	4,10617795	4,12363125	4,14108454	4,15853783	4,17599112
17	4,08901555	4,10646884	4,12392213	4,14137543	4,15882872	4,17628201
18	4,08930644	4,10675973	4,12421302	4,14166631	4,15911961	4,1765729
19	4,08959733	4,10705062	4,12450391	4,1419572	4,1594105	4,17686379
20	4,08988821	4,10734151	4,1247948	4,14224809	4,15970138	4,17715468
21	4,0901791	4,10763239	4,12508569	4,14253898	4,15999227	4,17744556
22	4,09046999	4,10792328	4,12537658	4,14282987	4,16028316	4,17773645
23	4,09076088	4,10821417	4,12566746	4,14312076	4,16057405	4,17802734
24	4,09105177	4,10850506	4,12595835	4,14341164	4,16086494	4,17831823
25	4,09134265	4,10879595	4,12624924	4,14370253	4,16115582	4,17860912
26	4,09163354	4,10908684	4,12654013	4,14399342	4,16144671	4,17890001
27	4,09192443	4,10937772	4,12683102	4,14428431	4,1617376	4,17919089
28	4,09221532	4,10966861	4,1271219	4,1445752	4,16202849	4,17948178
29	4,09250621	4,1099595	4,12741279	4,14486609	4,16231938	4,17977267
30	4,0927971	4,11025039	4,12770368	4,14515697	4,16261027	4,18006356
31	4,09308798	4,11054128	4,12799457	4,14544786	4,16290115	4,18035445
32	4,09337887	4,11083216	4,12828546	4,14573875	4,16319204	4,18064533
33	4,09366976	4,11112305	4,12857635	4,14602964	4,16348293	4,18093622
34	4,09396065	4,11141394	4,12886723	4,14632053	4,16377382	4,18122711
35	4,09425154	4,11170483	4,12915812	4,14661141	4,16406471	4,181518
36	4,09454243	4,11199572	4,12944901	4,1469023	4,1643556	4,18180889
37	4,09483331	4,11228661	4,1297399	4,14719319	4,16464648	4,18209978
38	4,0951242	4,11257749	4,13003079	4,14748408	4,16493737	4,18239066
39	4,09541509	4,11286838	4,13032167	4,14777497	4,16522826	4,18268155
40	4,09570598	4,11315927	4,13061256	4,14806586	4,16551915	4,18297244
41	4,09599687	4,11345016	4,13090345	4,14835674	4,16581004	4,18326333
42	4,09628775	4,11374105	4,13119434	4,14864763	4,16610092	4,18355422
43	4,09657864	4,11403194	4,13148523	4,14893852	4,16639181	4,18384511
44	4,09686953	4,11432282	4,13177612	4,14922941	4,1666827	4,18413599
45	4,09716042	4,11461371	4,132067	4,1495203	4,16697359	4,18442688
46	4,09745131	4,1149046	4,13235789	4,14981118	4,16726448	4,18471777
47	4,0977422	4,11519549	4,13264878	4,15010207	4,16755537	4,18500866
48	4,09803308	4,11548638	4,13293967	4,15039296	4,16784625	4,18529955
49	4,09832397	4,11577726	4,13323056	4,15068385	4,16813714	4,18559043
50	4,09861486	4,11606815	4,13352145	4,15097474	4,16842803	4,18588132
51	4,09890575	4,11635904	4,13381233	4,15126563	4,16871892	4,18617221
52	4,09919664	4,11664993	4,13410322	4,15155651	4,16900981	4,1864631
53	4,09948752	4,11694082	4,13439411	4,1518474	4,16930069	4,18675399
54	4,09977841	4,11723171	4,134685	4,15213829	4,16959158	4,18704488
55	4,1000693	4,11752259	4,13497589	4,15242918	4,16988247	4,18733576
56	4,10036019	4,11781348	4,13526677	4,15272007	4,17017336	4,18762665
57	4,10065108	4,11810437	4,13555766	4,15301096	4,17046425	4,18791754
58	4,10094197	4,11839526	4,13584855	4,15330184	4,17075514	4,18820843
59	4,10123285	4,11868615	4,13613944	4,15359273	4,17104602	4,18849932
60	4,10152374	4,11897703	4,13643033	4,15388362	4,17133691	4,1887902

	240°	241°	242°	243°	244°	245°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	4,1887902	4,2062435	4,22369679	4,24115008	4,25860337	4,27605667
1	4,18908109	4,20653439	4,22398768	4,24144097	4,25889426	4,27634756
2	4,18937198	4,20682527	4,22427857	4,24173186	4,25918515	4,27663844
3	4,18966287	4,20711616	4,22456945	4,24202275	4,25947604	4,27692933
4	4,18995376	4,20740705	4,22486034	4,24231364	4,25976693	4,27722022
5	4,19024465	4,20769794	4,22515123	4,24260452	4,26005782	4,27751111
6	4,19053553	4,20798883	4,22544212	4,24289541	4,2603487	4,277802
7	4,19082642	4,20827971	4,22573301	4,2431863	4,26063959	4,27809288
8	4,19111731	4,2085706	4,2260239	4,24347719	4,26093048	4,27838377
9	4,1914082	4,20886149	4,22631478	4,24376808	4,26122137	4,27867466
10	4,19169909	4,20915238	4,22660567	4,24405896	4,26151226	4,27896555
11	4,19198998	4,20944327	4,22689656	4,24434985	4,26180315	4,27925644
12	4,19228086	4,20973416	4,22718745	4,24464074	4,26209403	4,27954733
13	4,19257175	4,21002504	4,22747834	4,24493163	4,26238492	4,27983821
14	4,19286264	4,21031593	4,22776922	4,24522252	4,26267581	4,2801291
15	4,19315353	4,21060682	4,22806011	4,24551341	4,2629667	4,28041999
16	4,19344442	4,21089771	4,228351	4,24580429	4,26325759	4,28071088
17	4,1937353	4,2111886	4,22864189	4,24609518	4,26354847	4,28100177
18	4,19402619	4,21147949	4,22893278	4,24638607	4,26383936	4,28129266
19	4,19431708	4,21177037	4,22922367	4,24667696	4,26413025	4,28158354
20	4,19460797	4,21206126	4,22951455	4,24696785	4,26442114	4,28187443
21	4,19489886	4,21235215	4,22980544	4,24725873	4,26471203	4,28216532
22	4,19518975	4,21264304	4,23009633	4,24754962	4,26500292	4,28245621
23	4,19548063	4,21293393	4,23038722	4,24784051	4,2652938	4,2827471
24	4,19577152	4,21322481	4,23067811	4,2481314	4,26558469	4,28303798
25	4,19606241	4,2135157	4,230969	4,24842229	4,26587558	4,28332887
26	4,1963533	4,21380659	4,23125988	4,24871318	4,26616647	4,28361976
27	4,19664419	4,21409748	4,23155077	4,24900406	4,26645736	4,28391065
28	4,19693507	4,21438837	4,23184166	4,24929495	4,26674824	4,28420154
29	4,19722596	4,21467926	4,23213255	4,24958584	4,26703913	4,28449243
30	4,19751685	4,21497014	4,23242344	4,24987673	4,26733002	4,28478331
31	4,19780774	4,21526103	4,23271432	4,25016762	4,26762091	4,2850742
32	4,19809863	4,21555192	4,23300521	4,25045851	4,2679118	4,28536509
33	4,19838952	4,21584281	4,2332961	4,25074939	4,26820269	4,28565598
34	4,1986804	4,2161337	4,23358699	4,25104028	4,26849357	4,28594687
35	4,19897129	4,21642458	4,23387788	4,25133117	4,26878446	4,28623775
36	4,19926218	4,21671547	4,23416877	4,25162206	4,26907535	4,28652864
37	4,19955307	4,21700636	4,23445965	4,25191295	4,26936624	4,28681953
38	4,19984396	4,21729725	4,23475054	4,25220383	4,26965713	4,28711042
39	4,20013484	4,21758814	4,23504143	4,25249472	4,26994802	4,28740131
40	4,20042573	4,21787903	4,23533232	4,25278561	4,2702389	4,2876922
41	4,20071662	4,21816991	4,23562321	4,2530765	4,27052979	4,28798308
42	4,20100751	4,2184608	4,23591409	4,25336739	4,27082068	4,28827397
43	4,2012984	4,21875169	4,23620498	4,25365828	4,27111157	4,28856486
44	4,20158929	4,21904258	4,23649587	4,25394916	4,27140246	4,28885575
45	4,20188017	4,21933347	4,23678676	4,25424005	4,27169334	4,28914664
46	4,20217106	4,21962435	4,23707765	4,25453094	4,27198423	4,28943752
47	4,20246195	4,21991524	4,23736854	4,25482183	4,27227512	4,28972841
48	4,20275284	4,22020613	4,23765942	4,25511272	4,27256601	4,2900193
49	4,20304373	4,22049702	4,23795031	4,2554036	4,2728569	4,29031019
50	4,20333462	4,22078791	4,2382412	4,25569449	4,27314779	4,29060108
51	4,2036255	4,2210788	4,23853209	4,25598538	4,27343867	4,29089197
52	4,20391639	4,22136968	4,23882298	4,25627627	4,27372956	4,29118285
53	4,20420728	4,22166057	4,23911386	4,25656716	4,27402045	4,29147374
54	4,20449817	4,22195146	4,23940475	4,25685805	4,27431134	4,29176463
55	4,20478906	4,22224235	4,23969564	4,25714893	4,27460223	4,29205552
56	4,20507994	4,22253324	4,23998653	4,25743982	4,27489311	4,29234641
57	4,20537083	4,22282413	4,24027742	4,25773071	4,275184	4,2926373
58	4,20566172	4,22311501	4,24056831	4,2580216	4,27547489	4,29292818
59	4,20595261	4,2234059	4,24085919	4,25831249	4,27576578	4,29321907
60	4,2062435	4,22369679	4,24115008	4,25860337	4,27605667	4,29350996

	246°	247°	248°	249°	250°	251°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	4,29350996	4,31096325	4,32841654	4,34586984	4,36332313	4,38077642
1	4,29380085	4,31125414	4,32870743	4,34616073	4,36361402	4,38106731
2	4,29409174	4,31154503	4,32899832	4,34645161	4,36390491	4,38135820
3	4,29438262	4,31183592	4,32928921	4,34674250	4,36419579	4,38164909
4	4,29467351	4,31212681	4,32958010	4,34703339	4,36448668	4,38193998
5	4,29496440	4,31241769	4,32987099	4,34732428	4,36477757	4,38223086
6	4,29525529	4,31270858	4,33016187	4,34761517	4,36506846	4,38252175
7	4,29554618	4,31299947	4,33045276	4,34790605	4,36535935	4,38281264
8	4,29583707	4,31329036	4,33074365	4,34819694	4,36565024	4,38310353
9	4,29612795	4,31358125	4,33103454	4,34848783	4,36594112	4,38339442
10	4,29641884	4,31387213	4,33132543	4,34877872	4,36623201	4,38368531
11	4,29670973	4,31416302	4,33161632	4,34906961	4,36652290	4,38397619
12	4,29700062	4,31445391	4,33190721	4,34936050	4,36681379	4,38426708
13	4,29729151	4,31474480	4,33219809	4,34965138	4,36710468	4,38455797
14	4,29758239	4,31503569	4,33248898	4,34994227	4,36739556	4,38484886
15	4,29787328	4,31532658	4,33277987	4,35023316	4,36768645	4,38513975
16	4,29816417	4,31561746	4,33307076	4,35052405	4,36797734	4,38543063
17	4,29845506	4,31590835	4,33336164	4,35081494	4,36826823	4,38572152
18	4,29874595	4,31619924	4,33365253	4,35110583	4,36855912	4,38601241
19	4,29903684	4,31649013	4,33394342	4,35139671	4,36885001	4,38630330
20	4,29932772	4,31678102	4,33423431	4,35168760	4,36914089	4,38659419
21	4,29961861	4,31707191	4,33452520	4,35197849	4,36943178	4,38688507
22	4,29990950	4,31736279	4,33481609	4,35226938	4,36972267	4,38717596
23	4,30020039	4,31765368	4,33510697	4,35256027	4,37001356	4,38746685
24	4,30049128	4,31794457	4,33539786	4,35285115	4,37030445	4,38775774
25	4,30078217	4,31823546	4,33568875	4,35314204	4,37059534	4,38804863
26	4,30107305	4,31852635	4,33597964	4,35343293	4,37088622	4,38833952
27	4,30136394	4,31881723	4,33627053	4,35372382	4,37117711	4,38863041
28	4,30165483	4,31910812	4,33656141	4,35401471	4,37146800	4,38892129
29	4,30194572	4,31939901	4,33685230	4,35430560	4,37175889	4,38921218
30	4,30223661	4,31968990	4,33714319	4,35459648	4,37204978	4,38950307
31	4,30252749	4,31998079	4,33743408	4,35488737	4,37234066	4,38979396
32	4,30281838	4,32027168	4,33772497	4,35517826	4,37263155	4,39008485
33	4,30310927	4,32056256	4,33801586	4,35546915	4,37292244	4,39037573
34	4,30340016	4,32085345	4,33830674	4,35576004	4,37321333	4,39066662
35	4,30369105	4,32114434	4,33859763	4,35605092	4,37350422	4,39095751
36	4,30398194	4,32143523	4,33888852	4,35634181	4,37379511	4,39124840
37	4,30427282	4,32172612	4,33917941	4,35663270	4,37408599	4,39153929
38	4,30456371	4,32201701	4,33947030	4,35692359	4,37437688	4,39183017
39	4,30485460	4,32230789	4,33976119	4,35721448	4,37466777	4,39212106
40	4,30514549	4,32259878	4,34005207	4,35750537	4,37495866	4,39241195
41	4,30543638	4,32288967	4,34034296	4,35779625	4,37524955	4,39270284
42	4,30572726	4,32318056	4,34063385	4,35808714	4,37554043	4,39299373
43	4,30601815	4,32347145	4,34092474	4,35837803	4,37583132	4,39328462
44	4,30630904	4,32376233	4,34121563	4,35866892	4,37612221	4,39357551
45	4,30659993	4,32405322	4,34150651	4,35895981	4,37641310	4,39386639
46	4,30689082	4,32434411	4,34179740	4,35925070	4,37670399	4,39415728
47	4,30718171	4,32463500	4,34208829	4,35954158	4,37699488	4,39444817
48	4,30747259	4,32492589	4,34237918	4,35983247	4,37728576	4,39473906
49	4,30776348	4,32521677	4,34267007	4,36012336	4,37757665	4,39502994
50	4,30805437	4,32550766	4,34296096	4,36041425	4,37786754	4,39532083
51	4,30834526	4,32579855	4,34325184	4,36070514	4,37815843	4,39561172
52	4,30863615	4,32608944	4,34354273	4,36099602	4,37844932	4,39590261
53	4,30892703	4,32638033	4,34383362	4,36128691	4,37874021	4,39619350
54	4,30921792	4,32667122	4,34412451	4,36157780	4,37903109	4,39648439
55	4,30950881	4,32696211	4,34441540	4,36186869	4,37932198	4,39677527
56	4,30979970	4,32725299	4,34470628	4,36215958	4,37961287	4,39706616
57	4,31009059	4,32754388	4,34499717	4,36245047	4,37990376	4,39735705
58	4,31038148	4,32783477	4,34528806	4,36274135	4,38019465	4,39764794
59	4,31067236	4,32812566	4,34557895	4,36303224	4,38048553	4,39793883
60	4,31096325	4,32841654	4,34586984	4,36332313	4,38077642	4,39822972

	252°	253°	254°	255°	256°	257°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	4,39822972	4,41568301	4,4331363	4,45058959	4,46804289	4,48549618
1	4,3985206	4,4159739	4,43342719	4,45088048	4,46833377	4,48578707
2	4,39881149	4,41626478	4,43371808	4,45117137	4,46862466	4,48607795
3	4,39910238	4,41655567	4,43400896	4,45146226	4,46891555	4,48636884
4	4,39939327	4,41684656	4,43429985	4,45175315	4,46920644	4,48665973
5	4,39968416	4,41713745	4,43459074	4,45204403	4,46949733	4,48695062
6	4,39997504	4,41742834	4,43488163	4,45233492	4,46978821	4,48724151
7	4,40026593	4,41771923	4,43517252	4,45262581	4,4700791	4,4875324
8	4,40055682	4,41801011	4,43546341	4,4529167	4,47036999	4,48782328
9	4,40084771	4,418301	4,43575429	4,45320759	4,47066088	4,48811417
10	4,4011386	4,41859189	4,43604518	4,45349847	4,47095177	4,48840506
11	4,40142949	4,41888278	4,43633607	4,45378936	4,47124266	4,48869595
12	4,40172037	4,41917367	4,43662696	4,45408025	4,47153354	4,48898684
13	4,40201126	4,41946455	4,43691785	4,45437114	4,47182443	4,48927772
14	4,40230215	4,41975544	4,43720873	4,45466203	4,47211532	4,48956861
15	4,40259304	4,42004633	4,43749962	4,45495292	4,47240621	4,4898595
16	4,40288393	4,42033722	4,43779051	4,4552438	4,4726971	4,49015039
17	4,40317481	4,42062811	4,4380814	4,45553469	4,47298798	4,49044128
18	4,4034657	4,420919	4,43837229	4,45582558	4,47327887	4,49073217
19	4,40375659	4,42120988	4,43866318	4,45611647	4,47356976	4,49102305
20	4,40404748	4,42150077	4,43895406	4,45640736	4,47386065	4,49131394
21	4,40433837	4,42179166	4,43924495	4,45669824	4,47415154	4,49160483
22	4,40462926	4,42208255	4,43953584	4,45698913	4,47444243	4,49189572
23	4,40492014	4,42237344	4,43982673	4,45728002	4,47473331	4,49218661
24	4,40521103	4,42266432	4,44011762	4,45757091	4,4750242	4,49247749
25	4,40550192	4,42295521	4,44040851	4,4578618	4,47531509	4,49276838
26	4,40579281	4,4232461	4,44069939	4,45815269	4,47560598	4,49305927
27	4,4060837	4,42353699	4,44099028	4,45844357	4,47589687	4,49335016
28	4,40637458	4,42382788	4,44128117	4,45873446	4,47618775	4,49364105
29	4,40666547	4,42411877	4,44157206	4,45902535	4,47647864	4,49393194
30	4,40695636	4,42440965	4,44186295	4,45931624	4,47676953	4,49422282
31	4,40724725	4,42470054	4,44215383	4,45960713	4,47706042	4,49451371
32	4,40753814	4,42499143	4,44244472	4,45989802	4,47735131	4,4948046
33	4,40782903	4,42528232	4,44273561	4,4601889	4,4776422	4,49509549
34	4,40811991	4,42557321	4,4430265	4,46047979	4,47793308	4,49538638
35	4,4084108	4,42586409	4,44331739	4,46077068	4,47822397	4,49567726
36	4,40870169	4,42615498	4,44360828	4,46106157	4,47851486	4,49596815
37	4,40899258	4,42644587	4,44389916	4,46135246	4,47880575	4,49625904
38	4,40928347	4,42673676	4,44419005	4,46164334	4,47909664	4,49654993
39	4,40957436	4,42702765	4,44448094	4,46193423	4,47938753	4,49684082
40	4,40986524	4,42731854	4,44477183	4,46222512	4,47967841	4,49713171
41	4,41015613	4,42760942	4,44506272	4,46251601	4,4799693	4,49742259
42	4,41044702	4,42790031	4,4453536	4,4628069	4,48026019	4,49771348
43	4,41073791	4,4281912	4,44564449	4,46309779	4,48055108	4,49800437
44	4,4110288	4,42848209	4,44593538	4,46338867	4,48084197	4,49829526
45	4,41131968	4,42877298	4,44622627	4,46367956	4,48113285	4,49858615
46	4,41161057	4,42906387	4,44651716	4,46397045	4,48142374	4,49887704
47	4,41190146	4,42935475	4,44680805	4,46426134	4,48171463	4,49916792
48	4,41219235	4,42964564	4,44709893	4,46455223	4,48200552	4,49945881
49	4,41248324	4,42993653	4,44738982	4,46484311	4,48229641	4,4997497
50	4,41277413	4,43022742	4,44768071	4,465134	4,4825873	4,50004059
51	4,41306501	4,43051831	4,4479716	4,46542489	4,48287818	4,50033148
52	4,4133559	4,43080919	4,44826249	4,46571578	4,48316907	4,50062236
53	4,41364679	4,43110008	4,44855338	4,46600667	4,48345996	4,50091325
54	4,41393768	4,43139097	4,44884426	4,46629756	4,48375085	4,50120414
55	4,41422857	4,43168186	4,44913515	4,46658844	4,48404174	4,50149503
56	4,41451945	4,43197275	4,44942604	4,46687933	4,48433262	4,50178592
57	4,41481034	4,43226364	4,44971693	4,46717022	4,48462351	4,50207681
58	4,41510123	4,43255452	4,45000782	4,46746111	4,4849144	4,50236769
59	4,41539212	4,43284541	4,4502987	4,467752	4,48520529	4,50265858
60	4,41568301	4,4331363	4,45058959	4,46804289	4,48549618	4,50294947

Minute	258° Radian	259° Radian	260° Radian	261° Radian	262° Radian	263° Radian
0	4,50294947	4,52040276	4,53785606	4,55530935	4,57276264	4,59021593
1	4,50324036	4,52069365	4,53814694	4,55560024	4,57305353	4,59050682
2	4,50353125	4,52098454	4,53843783	4,55589112	4,57334442	4,59079771
3	4,50382213	4,52127543	4,53872872	4,55618201	4,5736353	4,5910886
4	4,50411302	4,52156632	4,53901961	4,5564729	4,57392619	4,59137949
5	4,50440391	4,5218572	4,5393105	4,55676379	4,57421708	4,59167037
6	4,5046948	4,52214809	4,53960138	4,55705468	4,57450797	4,59196126
7	4,50498569	4,52243898	4,53989227	4,55734557	4,57479886	4,59225215
8	4,50527658	4,52272987	4,54018316	4,55763645	4,57508975	4,59254304
9	4,50556746	4,52302076	4,54047405	4,55792734	4,57538063	4,59283393
10	4,50585835	4,52331164	4,54076494	4,55821823	4,57567152	4,59312481
11	4,50614924	4,52360253	4,54105583	4,55850912	4,57596241	4,5934157
12	4,50644013	4,52389342	4,54134671	4,55880001	4,5762533	4,59370659
13	4,50673102	4,52418431	4,5416376	4,55909089	4,57654419	4,59399748
14	4,50702191	4,5244752	4,54192849	4,55938178	4,57683508	4,59428837
15	4,50731279	4,52476609	4,54221938	4,55967267	4,57712596	4,59457926
16	4,50760368	4,52505697	4,54251027	4,55996356	4,57741685	4,59487014
17	4,50789457	4,52534786	4,54280115	4,56025445	4,57770774	4,59516103
18	4,50818546	4,52563875	4,54309204	4,56054534	4,57799863	4,59545192
19	4,50847635	4,52592964	4,54338293	4,56083622	4,57828952	4,59574281
20	4,50876723	4,52622053	4,54367382	4,56112711	4,5785804	4,5960337
21	4,50905812	4,52651142	4,54396471	4,561418	4,57887129	4,59632459
22	4,50934901	4,5268023	4,5442556	4,56170889	4,57916218	4,59661547
23	4,5096399	4,52709319	4,54454648	4,56199978	4,57945307	4,59690636
24	4,50993079	4,52738408	4,54483737	4,56229066	4,57974396	4,59719725
25	4,51022168	4,52767497	4,54512826	4,56258155	4,58003485	4,59748814
26	4,51051256	4,52796586	4,54541915	4,56287244	4,58032573	4,59777903
27	4,51080345	4,52825674	4,54571004	4,56316333	4,58061662	4,59806991
28	4,51109434	4,52854763	4,54600093	4,56345422	4,58090751	4,5983608
29	4,51138523	4,52883852	4,54629181	4,56374511	4,5811984	4,59865169
30	4,51167612	4,52912941	4,5465827	4,56403599	4,58148929	4,59894258
31	4,511967	4,5294203	4,54687359	4,56432688	4,58178017	4,59923347
32	4,51225789	4,52971119	4,54716448	4,56461777	4,58207106	4,59952436
33	4,51254878	4,53000207	4,54745537	4,56490866	4,58236195	4,59981524
34	4,51283967	4,53029296	4,54774625	4,56519955	4,58265284	4,60010613
35	4,51313056	4,53058385	4,54803714	4,56549044	4,58294373	4,60039702
36	4,51342145	4,53087474	4,54832803	4,56578132	4,58323462	4,60068791
37	4,51371233	4,53116563	4,54861892	4,56607221	4,5835255	4,6009788
38	4,51400322	4,53145651	4,54890981	4,5663631	4,58381639	4,60126968
39	4,51429411	4,5317474	4,5492007	4,56665399	4,58410728	4,60156057
40	4,514585	4,53203829	4,54949158	4,56694488	4,58439817	4,60185146
41	4,51487589	4,53232918	4,54978247	4,56723576	4,58468906	4,60214235
42	4,51516677	4,53262007	4,55007336	4,56752665	4,58497994	4,60243324
43	4,51545766	4,53291096	4,55036425	4,56781754	4,58527083	4,60272413
44	4,51574855	4,53320184	4,55065514	4,56810843	4,58556172	4,60301501
45	4,51603944	4,53349273	4,55094602	4,56839932	4,58585261	4,6033059
46	4,51633033	4,53378362	4,55123691	4,56869021	4,5861435	4,60359679
47	4,51662122	4,53407451	4,5515278	4,56898109	4,58643439	4,60388768
48	4,5169121	4,5343654	4,55181869	4,56927198	4,58672527	4,60417857
49	4,51720299	4,53465628	4,55210958	4,56956287	4,58701616	4,60446945
50	4,51749388	4,53494717	4,55240047	4,56985376	4,58730705	4,60476034
51	4,51778477	4,53523806	4,55269135	4,57014465	4,58759794	4,60505123
52	4,51807566	4,53552895	4,55298224	4,57043553	4,58788883	4,60534212
53	4,51836655	4,53581984	4,55327313	4,57072642	4,58817972	4,60563301
54	4,51865743	4,53611073	4,55356402	4,57101731	4,5884706	4,6059239
55	4,51894832	4,53640161	4,55385491	4,5713082	4,58876149	4,60621478
56	4,51923921	4,5366925	4,55414579	4,57159909	4,58905238	4,60650567
57	4,5195301	4,53698339	4,55443668	4,57188998	4,58934327	4,60679656
58	4,51982099	4,53727428	4,55472757	4,57218086	4,58963416	4,60708745
59	4,52011187	4,53756517	4,55501846	4,57247175	4,58992504	4,60737834
60	4,52040276	4,53785606	4,55530935	4,57276264	4,59021593	4,60766923

Minute	264°	265°	266°	267°	268°	269°
	Radian	Radian	Radian	Radian	Radian	Radian
0	4,60766923	4,62512252	4,64257581	4,6600291	4,6774824	4,69493569
1	4,60796011	4,62541341	4,6428667	4,66031999	4,67777328	4,69522658
2	4,608251	4,62570429	4,64315759	4,66061088	4,67806417	4,69551746
3	4,60854189	4,62599518	4,64344847	4,66090177	4,67835506	4,69580835
4	4,60883278	4,62628607	4,64373936	4,66119266	4,67864595	4,69609924
5	4,60912367	4,62657696	4,64403025	4,66148354	4,67893684	4,69639013
6	4,60941455	4,62686785	4,64432114	4,66177443	4,67922772	4,69668102
7	4,60970544	4,62715874	4,64461203	4,66206532	4,67951861	4,69697191
8	4,60999633	4,62744962	4,64490292	4,66235621	4,6798095	4,69726279
9	4,61028722	4,62774051	4,6451938	4,6626471	4,68010039	4,69755368
10	4,61057811	4,6280314	4,64548469	4,66293798	4,68039128	4,69784457
11	4,610869	4,62832229	4,64577558	4,66322887	4,68068217	4,69813546
12	4,61115988	4,62861318	4,64606647	4,66351976	4,68097305	4,69842635
13	4,61145077	4,62890406	4,64635736	4,66381065	4,68126394	4,69871723
14	4,61174166	4,62919495	4,64664825	4,66410154	4,68155483	4,69900812
15	4,61203255	4,62948584	4,64693913	4,66439243	4,68184572	4,69929901
16	4,61232344	4,62977673	4,64723002	4,66468331	4,68213661	4,6995899
17	4,61261432	4,63006762	4,64752091	4,6649742	4,68242749	4,69988079
18	4,61290521	4,63035851	4,6478118	4,66526509	4,68271838	4,70017168
19	4,6131961	4,63064939	4,64810269	4,66555598	4,68300927	4,70046256
20	4,61348699	4,63094028	4,64839357	4,66584687	4,68330016	4,70075345
21	4,61377788	4,63123117	4,64868446	4,66613776	4,68359105	4,70104434
22	4,61406877	4,63152206	4,64897535	4,66642864	4,68388194	4,70133523
23	4,61435965	4,63181295	4,64926624	4,66671953	4,68417282	4,70162612
24	4,61465054	4,63210383	4,64955713	4,66701042	4,68446371	4,701917
25	4,61494143	4,63239472	4,64984802	4,66730131	4,6847546	4,70220789
26	4,61523232	4,63268561	4,6501389	4,6675922	4,68504549	4,70249878
27	4,61552321	4,6329765	4,65042979	4,66788308	4,68533638	4,70278967
28	4,6158141	4,63326739	4,65072068	4,66817397	4,68562727	4,70308056
29	4,61610498	4,63355828	4,65101157	4,66846486	4,68591815	4,70337145
30	4,61639587	4,63384916	4,65130246	4,66875575	4,68620904	4,70366233
31	4,61668676	4,63414005	4,65159334	4,66904664	4,68649993	4,70395322
32	4,61697765	4,63443094	4,65188423	4,66933753	4,68679082	4,70424411
33	4,61726854	4,63472183	4,65217512	4,66962841	4,68708171	4,704535
34	4,61755942	4,63501272	4,65246601	4,6699193	4,68737259	4,70482589
35	4,61785031	4,63530361	4,6527569	4,67021019	4,68766348	4,70511678
36	4,6181412	4,63559449	4,65304779	4,67050108	4,68795437	4,70540766
37	4,61843209	4,63588538	4,65333867	4,67079197	4,68824526	4,70569855
38	4,61872298	4,63617627	4,65362956	4,67108285	4,68853615	4,70598944
39	4,61901387	4,63646716	4,65392045	4,67137374	4,68882704	4,70628033
40	4,61930475	4,63675805	4,65421134	4,67166463	4,68911792	4,70657122
41	4,61959564	4,63704893	4,65450223	4,67195552	4,68940881	4,7068621
42	4,61988653	4,63733982	4,65479312	4,67224641	4,6896997	4,70715299
43	4,62017742	4,63763071	4,655084	4,6725373	4,68999059	4,70744388
44	4,62046831	4,6379216	4,65537489	4,67282818	4,69028148	4,70773477
45	4,62075919	4,63821249	4,65566578	4,67311907	4,69057236	4,70802566
46	4,62105008	4,63850338	4,65595667	4,67340996	4,69086325	4,70831655
47	4,62134097	4,63879426	4,65624756	4,67370085	4,69115414	4,70860743
48	4,62163186	4,63908515	4,65653844	4,67399174	4,69144503	4,70889832
49	4,62192275	4,63937604	4,65682933	4,67428263	4,69173592	4,70918921
50	4,62221364	4,63966693	4,65712022	4,67457351	4,69202681	4,7094801
51	4,62250452	4,63995782	4,65741111	4,6748644	4,69231769	4,70977099
52	4,62279541	4,6402487	4,657702	4,67515529	4,69260858	4,71006187
53	4,6230863	4,64053959	4,65799289	4,67544618	4,69289947	4,71035276
54	4,62337719	4,64083048	4,65828377	4,67573707	4,69319036	4,71064365
55	4,62366808	4,64112137	4,65857466	4,67602795	4,69348125	4,71093454
56	4,62395896	4,64141226	4,65886555	4,67631884	4,69377214	4,71122543
57	4,62424985	4,64170315	4,65915644	4,67660973	4,69406302	4,71151632
58	4,62454074	4,64199403	4,65944733	4,67690062	4,69435391	4,7118072
59	4,62483163	4,64228492	4,65973821	4,67719151	4,6946448	4,71209809
60	4,62512252	4,64257581	4,6600291	4,6774824	4,69493569	4,71238898

Minute	270°	271°	272°	273°	274°	275°
	Radian	Radian	Radian	Radian	Radian	Radian
0	4,71238898	4,72984227	4,74729557	4,76474886	4,78220215	4,79965544
1	4,71267987	4,73013316	4,74758645	4,76503975	4,78249304	4,79994633
2	4,71297076	4,73042405	4,74787734	4,76533063	4,78278393	4,80023722
3	4,71326165	4,73071494	4,74816823	4,76562152	4,78307482	4,80052811
4	4,71355253	4,73100583	4,74845912	4,76591241	4,7833657	4,800819
5	4,71384342	4,73129671	4,74875001	4,7662033	4,78365659	4,80110988
6	4,71413431	4,7315876	4,74904089	4,76649419	4,78394748	4,80140077
7	4,7144252	4,73187849	4,74933178	4,76678508	4,78423837	4,80169166
8	4,71471609	4,73216938	4,74962267	4,76707596	4,78452926	4,80198255
9	4,71500697	4,73246027	4,74991356	4,76736685	4,78482014	4,80227344
10	4,71529786	4,73275115	4,75020445	4,76765774	4,78511103	4,80256433
11	4,71558875	4,73304204	4,75049534	4,76794863	4,78540192	4,80285521
12	4,71587964	4,73333293	4,75078622	4,76823952	4,78569281	4,8031461
13	4,71617053	4,73362382	4,75107711	4,7685304	4,7859837	4,80343699
14	4,71646142	4,73391471	4,751368	4,76882129	4,78627459	4,80372788
15	4,7167523	4,7342056	4,75165889	4,76911218	4,78656547	4,80401877
16	4,71704319	4,73449648	4,75194978	4,76940307	4,78685636	4,80430965
17	4,71733408	4,73478737	4,75224066	4,76969396	4,78714725	4,80460054
18	4,71762497	4,73507826	4,75253155	4,76998485	4,78743814	4,80489143
19	4,71791586	4,73536915	4,75282244	4,77027573	4,78772903	4,80518232
20	4,71820674	4,73566004	4,75311333	4,77056662	4,78801991	4,80547321
21	4,71849763	4,73595093	4,75340422	4,77085751	4,7883108	4,8057641
22	4,71878852	4,73624181	4,75369511	4,7711484	4,78860169	4,80605498
23	4,71907941	4,7365327	4,75398599	4,77143929	4,78889258	4,80634587
24	4,7193703	4,73682359	4,75427688	4,77173017	4,78918347	4,80663676
25	4,71966119	4,73711448	4,75456777	4,77202106	4,78947436	4,80692765
26	4,71995207	4,73740537	4,75485866	4,77231195	4,78976524	4,80721854
27	4,72024296	4,73769625	4,75514955	4,77260284	4,79005613	4,80750942
28	4,72053385	4,73798714	4,75544044	4,77289373	4,79034702	4,80780031
29	4,72082474	4,73827803	4,75573132	4,77318462	4,79063791	4,8080912
30	4,72111563	4,73856892	4,75602221	4,7734755	4,7909288	4,80838209
31	4,72140651	4,73885981	4,7563131	4,77376639	4,79121968	4,80867298
32	4,7216974	4,7391507	4,75660399	4,77405728	4,79151057	4,80896387
33	4,72198829	4,73944158	4,75689488	4,77434817	4,79180146	4,80925475
34	4,72227918	4,73973247	4,75718576	4,77463906	4,79209235	4,80954564
35	4,72257007	4,74002336	4,75747665	4,77492995	4,79238324	4,80983653
36	4,72286096	4,74031425	4,75776754	4,77522083	4,79267413	4,81012742
37	4,72315184	4,74060514	4,75805843	4,77551172	4,79296501	4,81041831
38	4,72344273	4,74089602	4,75834932	4,77580261	4,7932559	4,81070919
39	4,72373362	4,74118691	4,75864021	4,7760935	4,79354679	4,81100008
40	4,72402451	4,7414778	4,75893109	4,77638439	4,79383768	4,81129097
41	4,7243154	4,74176869	4,75922198	4,77667527	4,79412857	4,81158186
42	4,72460629	4,74205958	4,75951287	4,77696616	4,79441946	4,81187275
43	4,72489717	4,74235047	4,75980376	4,77725705	4,79471034	4,81216364
44	4,72518806	4,74264135	4,76009465	4,77754794	4,79500123	4,81245452
45	4,72547895	4,74293224	4,76038553	4,77783883	4,79529212	4,81274541
46	4,72576984	4,74322313	4,76067642	4,77812972	4,79558301	4,8130363
47	4,72606073	4,74351402	4,76096731	4,7784206	4,7958739	4,81332719
48	4,72635161	4,74380491	4,7612582	4,77871149	4,79616478	4,81361808
49	4,7266425	4,7440958	4,76154909	4,77900238	4,79645567	4,81390897
50	4,72693339	4,74438668	4,76183998	4,77929327	4,79674656	4,81419985
51	4,72722428	4,74467757	4,76213086	4,77958416	4,79703745	4,81449074
52	4,72751517	4,74496846	4,76242175	4,77987504	4,79732834	4,81478163
53	4,72780606	4,74525935	4,76271264	4,78016593	4,79761923	4,81507252
54	4,72809694	4,74555024	4,76300353	4,78045682	4,79791011	4,81536341
55	4,72838783	4,74584112	4,76329442	4,78074771	4,798201	4,81565429
56	4,72867872	4,74613201	4,76358531	4,7810386	4,79849189	4,81594518
57	4,72896961	4,7464229	4,76387619	4,78132949	4,79878278	4,81623607
58	4,7292605	4,74671379	4,76416708	4,78162037	4,79907367	4,81652696
59	4,72955138	4,74700468	4,76445797	4,78191126	4,79936455	4,81681785
60	4,72984227	4,74729557	4,76474886	4,78220215	4,79965544	4,81710874

	276°	277°	278°	279°	280°	281°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	4,81710874	4,83456203	4,85201532	4,86946861	4,88692191	4,9043752
1	4,81739962	4,83485292	4,85230621	4,8697595	4,88721279	4,90466609
2	4,81769051	4,8351438	4,8525971	4,87005039	4,88750368	4,90495697
3	4,8179814	4,83543469	4,85288799	4,87034128	4,88779457	4,90524786
4	4,81827229	4,83572558	4,85317887	4,87063217	4,88808546	4,90553875
5	4,81856318	4,83601647	4,85346976	4,87092305	4,88837635	4,90582964
6	4,81885406	4,83630736	4,85376065	4,87121394	4,88866723	4,90612053
7	4,81914495	4,83659825	4,85405154	4,87150483	4,88895812	4,90641142
8	4,81943584	4,83688913	4,85434243	4,87179572	4,88924901	4,9067023
9	4,81972673	4,83718002	4,85463331	4,87208661	4,8895399	4,90699319
10	4,82001762	4,83747091	4,8549242	4,8723775	4,88983079	4,90728408
11	4,82030851	4,8377618	4,85521509	4,87266838	4,89012168	4,90757497
12	4,82059939	4,83805269	4,85550598	4,87295927	4,89041256	4,90786586
13	4,82089028	4,83834357	4,85579687	4,87325016	4,89070345	4,90815674
14	4,82118117	4,83863446	4,85608776	4,87354105	4,89099434	4,90844763
15	4,82147206	4,83892535	4,85637864	4,87383194	4,89128523	4,90873852
16	4,82176295	4,83921624	4,85666953	4,87412282	4,89157612	4,90902941
17	4,82205384	4,83950713	4,85696042	4,87441371	4,89186701	4,9093203
18	4,82234472	4,83979802	4,85725131	4,8747046	4,89215789	4,90961119
19	4,82263561	4,8400889	4,8575422	4,87499549	4,89244878	4,90990207
20	4,8229265	4,84037979	4,85783308	4,87528638	4,89273967	4,91019296
21	4,82321739	4,84067068	4,85812397	4,87557727	4,89303056	4,91048385
22	4,82350828	4,84096157	4,85841486	4,87586815	4,89332145	4,91077474
23	4,82379916	4,84125246	4,85870575	4,87615904	4,89361233	4,91106563
24	4,82409005	4,84154335	4,85899664	4,87644993	4,89390322	4,91135652
25	4,82438094	4,84183423	4,85928753	4,87674082	4,89419411	4,9116474
26	4,82467183	4,84212512	4,85957841	4,87703171	4,894485	4,91193829
27	4,82496272	4,84241601	4,8598693	4,87732259	4,89477589	4,91222918
28	4,82525361	4,8427069	4,86016019	4,87761348	4,89506678	4,91252007
29	4,82554449	4,84299779	4,86045108	4,87790437	4,89535766	4,91281096
30	4,82583538	4,84328867	4,86074197	4,87819526	4,89564855	4,91310184
31	4,82612627	4,84357956	4,86103286	4,87848615	4,89593944	4,91339273
32	4,82641716	4,84387045	4,86132374	4,87877704	4,89623033	4,91368362
33	4,82670805	4,84416134	4,86161463	4,87906792	4,89652122	4,91397451
34	4,82699893	4,84445223	4,86190552	4,87935881	4,8968121	4,9142654
35	4,82728982	4,84474312	4,86219641	4,8796497	4,89710299	4,91455629
36	4,82758071	4,845034	4,8624873	4,87994059	4,89739388	4,91484717
37	4,8278716	4,84532489	4,86277818	4,88023148	4,89768477	4,91513806
38	4,82816249	4,84561578	4,86306907	4,88052236	4,89797566	4,91542895
39	4,82845338	4,84590667	4,86335996	4,88081325	4,89826655	4,91571984
40	4,82874426	4,84619756	4,86365085	4,88110414	4,89855743	4,91601073
41	4,82903515	4,84648844	4,86394174	4,88139503	4,89884832	4,91630161
42	4,82932604	4,84677933	4,86423263	4,88168592	4,89913921	4,9165925
43	4,82961693	4,84707022	4,86452351	4,88197681	4,8994301	4,91688339
44	4,82990782	4,84736111	4,8648144	4,88226769	4,89972099	4,91717428
45	4,8301987	4,847652	4,86510529	4,88255858	4,90001187	4,91746517
46	4,83048959	4,84794289	4,86539618	4,88284947	4,90030276	4,91775606
47	4,83078048	4,84823377	4,86568707	4,88314036	4,90059365	4,91804694
48	4,83107137	4,84852466	4,86597795	4,88343125	4,90088454	4,91833783
49	4,83136226	4,84881555	4,86626884	4,88372214	4,90117543	4,91862872
50	4,83165315	4,84910644	4,86655973	4,88401302	4,90146632	4,91891961
51	4,83194403	4,84939733	4,86685062	4,88430391	4,9017572	4,9192105
52	4,83223492	4,84968821	4,86714151	4,8845948	4,90204809	4,91950138
53	4,83252581	4,8499791	4,8674324	4,88488569	4,90233898	4,91979227
54	4,8328167	4,85026999	4,86772328	4,88517658	4,90262987	4,92008316
55	4,83310759	4,85056088	4,86801417	4,88546746	4,90292076	4,92037405
56	4,83339848	4,85085177	4,86830506	4,88575835	4,90321165	4,92066494
57	4,83368936	4,85114266	4,86859595	4,88604924	4,90350253	4,92095583
58	4,83398025	4,85143354	4,86888684	4,88634013	4,90379342	4,92124671
59	4,83427114	4,85172443	4,86917772	4,88663102	4,90408431	4,9215376
60	4,83456203	4,85201532	4,86946861	4,88692191	4,9043752	4,92182849

Minute	282°	283°	284°	285°	286°	287°
	Radian	Radian	Radian	Radian	Radian	Radian
0	4,92182849	4,93928178	4,95673508	4,97418837	4,99164166	5,00909495
1	4,92211938	4,93957267	4,95702596	4,97447926	4,99193255	5,00938584
2	4,92241027	4,93986356	4,95731685	4,97477014	4,99222344	5,00967673
3	4,92270116	4,94015445	4,95760774	4,97506103	4,99251433	5,00996762
4	4,92299204	4,94044534	4,95789863	4,97535192	4,99280521	5,01025851
5	4,92328293	4,94073622	4,95818952	4,97564281	4,99309610	5,01054939
6	4,92357382	4,94102711	4,9584804	4,9759337	4,99338699	5,01084028
7	4,92386471	4,941318	4,95877129	4,97622459	4,99367788	5,01113117
8	4,9241556	4,94160889	4,95906218	4,97651547	4,99396877	5,01142206
9	4,92444648	4,94189978	4,95935307	4,97680636	4,99425965	5,01171295
10	4,92473737	4,94219067	4,95964396	4,97709725	4,99455054	5,01200384
11	4,92502826	4,94248155	4,95993485	4,97738814	4,99484143	5,01229472
12	4,92531915	4,94277244	4,96022573	4,97767903	4,99513232	5,01258561
13	4,92561004	4,94306333	4,96051662	4,97796991	4,99542321	5,0128765
14	4,92590093	4,94335422	4,96080751	4,9782608	4,9957141	5,01316739
15	4,92619181	4,94364511	4,9610984	4,97855169	4,99600498	5,01345828
16	4,9264827	4,94393599	4,96138929	4,97884258	4,99629587	5,01374916
17	4,92677359	4,94422688	4,96168018	4,97913347	4,99658676	5,01404005
18	4,92706448	4,94451777	4,96197106	4,97942436	4,99687765	5,01433094
19	4,92735537	4,94480866	4,96226195	4,97971524	4,99716854	5,01462183
20	4,92764625	4,94509955	4,96255284	4,98000613	4,99745942	5,01491272
21	4,92793714	4,94539044	4,96284373	4,98029702	4,99775031	5,01520361
22	4,92822803	4,94568132	4,96313462	4,98058791	4,9980412	5,01549449
23	4,92851892	4,94597221	4,9634255	4,9808788	4,99833209	5,01578538
24	4,92880981	4,9462631	4,96371639	4,98116969	4,99862298	5,01607627
25	4,9291007	4,94655399	4,96400728	4,98146057	4,99891387	5,01636716
26	4,92939158	4,94684488	4,96429817	4,98175146	4,99920475	5,01665805
27	4,92968247	4,94713576	4,96458906	4,98204235	4,99949564	5,01694893
28	4,92997336	4,94742665	4,96487995	4,98233324	4,99978653	5,01723982
29	4,93026425	4,94771754	4,96517083	4,98262413	5,00007742	5,01753071
30	4,93055514	4,94800843	4,96546172	4,98291501	5,00036831	5,0178216
31	4,93084603	4,94829932	4,96575261	4,9832059	5,0006592	5,01811249
32	4,93113691	4,94859021	4,9660435	4,98349679	5,00095008	5,01840338
33	4,9314278	4,94888109	4,96633439	4,98378768	5,00124097	5,01869426
34	4,93171869	4,94917198	4,96662527	4,98407857	5,00153186	5,01898515
35	4,93200958	4,94946287	4,96691616	4,98436946	5,00182275	5,01927604
36	4,93230047	4,94975376	4,96720705	4,98466034	5,00211364	5,01956693
37	4,93259135	4,95004465	4,96749794	4,98495123	5,00240452	5,01985782
38	4,93288224	4,95033554	4,96778883	4,98524212	5,00269541	5,02014871
39	4,93317313	4,95062642	4,96807972	4,98553301	5,0029863	5,02043959
40	4,93346402	4,95091731	4,9683706	4,9858239	5,00327719	5,02073048
41	4,93375491	4,9512082	4,96866149	4,98611478	5,00356808	5,02102137
42	4,9340458	4,95149909	4,96895238	4,98640567	5,00385897	5,02131226
43	4,93433668	4,95178998	4,96924327	4,98669656	5,00414985	5,02160315
44	4,93462757	4,95208086	4,96953416	4,98698745	5,00444074	5,02189403
45	4,93491846	4,95237175	4,96982505	4,98727834	5,00473163	5,02218492
46	4,93520935	4,95266264	4,97011593	4,98756923	5,00502252	5,02247581
47	4,93550024	4,95295353	4,97040682	4,98786011	5,00531341	5,0227667
48	4,93579112	4,95324442	4,97069771	4,988151	5,00560429	5,02305759
49	4,93608201	4,95353531	4,9709886	4,98844189	5,00589518	5,02334848
50	4,9363729	4,95382619	4,97127949	4,98873278	5,00618607	5,02363936
51	4,93666379	4,95411708	4,97157037	4,98902367	5,00647696	5,02393025
52	4,93695468	4,95440797	4,97186126	4,98931456	5,00676785	5,02422114
53	4,93724557	4,95469886	4,97215215	4,98960544	5,00705874	5,02451203
54	4,93753645	4,95498975	4,97244304	4,98989633	5,00734962	5,02480292
55	4,93782734	4,95528063	4,97273393	4,99018722	5,00764051	5,0250938
56	4,93811823	4,95557152	4,97302482	4,99047811	5,0079314	5,02538469
57	4,93840912	4,95586241	4,9733157	4,990769	5,00822229	5,02567558
58	4,93870001	4,9561533	4,97360659	4,99105988	5,00851318	5,02596647
59	4,93899089	4,95644419	4,97389748	4,99135077	5,00880407	5,02625736
60	4,93928178	4,95673508	4,97418837	4,99164166	5,00909495	5,02654825

	288°	289°	290°	291°	292°	293°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	5,02654825	5,04400154	5,06145483	5,07890812	5,09636142	5,131268
1	5,02683913	5,04429243	5,06174572	5,07919901	5,0966523	5,13155889
2	5,02713002	5,04458331	5,06203661	5,0794899	5,09694319	5,13184978
3	5,02742091	5,0448742	5,0623275	5,07978079	5,09723408	5,13214067
4	5,0277118	5,04516509	5,06261838	5,08007168	5,09752497	5,13243155
5	5,02800269	5,04545598	5,06290927	5,08036256	5,09781586	5,13272244
6	5,02829357	5,04574687	5,06320016	5,08065345	5,09810675	5,13301333
7	5,02858446	5,04603776	5,06349105	5,08094434	5,09839763	5,13330422
8	5,02887535	5,04632864	5,06378194	5,08123523	5,09868852	5,13359511
9	5,02916624	5,04661953	5,06407282	5,08152612	5,09897941	5,13388599
10	5,02945713	5,04691042	5,06436371	5,08181701	5,0992703	5,13417688
11	5,02974802	5,04720131	5,0646546	5,08210789	5,09956119	5,13446777
12	5,0300389	5,0474922	5,06494549	5,08239878	5,09985207	5,13475866
13	5,03032979	5,04778308	5,06523638	5,08268967	5,10014296	5,13504955
14	5,03062068	5,04807397	5,06552727	5,08298056	5,10043385	5,13534044
15	5,03091157	5,04836486	5,06581815	5,08327145	5,10072474	5,13563132
16	5,03120246	5,04865575	5,06610904	5,08356233	5,10101563	5,13592221
17	5,03149335	5,04894664	5,06639993	5,08385322	5,10130652	5,1362131
18	5,03178423	5,04923753	5,06669082	5,08414411	5,1015974	5,13650399
19	5,03207512	5,04952841	5,06698171	5,084435	5,10188829	5,13679488
20	5,03236601	5,0498193	5,06727259	5,08472589	5,10217918	5,13708577
21	5,0326569	5,05011019	5,06756348	5,08501678	5,10247007	5,13737665
22	5,03294779	5,05040108	5,06785437	5,08530766	5,10276096	5,13766754
23	5,03323867	5,05069197	5,06814526	5,08559855	5,10305184	5,13795843
24	5,03352956	5,05098286	5,06843615	5,08588944	5,10334273	5,13824932
25	5,03382045	5,05127374	5,06872704	5,08618033	5,10363362	5,13854021
26	5,03411134	5,05156463	5,06901792	5,08647122	5,10392451	5,13883109
27	5,03440223	5,05185552	5,06930881	5,0867621	5,1042154	5,13912198
28	5,03469312	5,05214641	5,0695997	5,08705299	5,10450629	5,13941287
29	5,034984	5,0524373	5,06989059	5,08734388	5,10479717	5,13970376
30	5,03527489	5,05272818	5,07018148	5,08763477	5,10508806	5,13999465
31	5,03556578	5,05301907	5,07047237	5,08792566	5,10537895	5,14028554
32	5,03585667	5,05330996	5,07076325	5,08821655	5,10566984	5,14057642
33	5,03614756	5,05360085	5,07105414	5,08850743	5,10596073	5,14086731
34	5,03643844	5,05389174	5,07134503	5,08879832	5,10625161	5,1411582
35	5,03672933	5,05418263	5,07163592	5,08908921	5,1065425	5,14144909
36	5,03702022	5,05447351	5,07192681	5,0893801	5,10683339	5,14173998
37	5,03731111	5,0547644	5,07221769	5,08967099	5,10712428	5,14203086
38	5,037602	5,05505529	5,07250858	5,08996188	5,10741517	5,14232175
39	5,03789289	5,05534618	5,07279947	5,09025276	5,10770606	5,14261264
40	5,03818377	5,05563707	5,07309036	5,09054365	5,10799694	5,14290353
41	5,03847466	5,05592795	5,07338125	5,09083454	5,10828783	5,14319442
42	5,03876555	5,05621884	5,07367214	5,09112543	5,10857872	5,14348531
43	5,03905644	5,05650973	5,07396302	5,09141632	5,10886961	5,14377619
44	5,03934733	5,05680062	5,07425391	5,0917072	5,1091605	5,14406708
45	5,03963822	5,05709151	5,0745448	5,09199809	5,10945139	5,14435797
46	5,0399291	5,0573824	5,07483569	5,09228898	5,10974227	5,14464886
47	5,04021999	5,05767328	5,07512658	5,09257987	5,11003316	5,14493975
48	5,04051088	5,05796417	5,07541746	5,09287076	5,11032405	5,14523063
49	4,93608201	4,95353531	4,9709886	4,98844189	5,00589518	5,02334848
50	4,9363729	4,95382619	4,97127949	4,98873278	5,00618607	5,02363936
51	4,93666379	4,95411708	4,97157037	4,98902367	5,00647696	5,02393025
52	4,93695468	4,95440797	4,97186126	4,98931456	5,00676785	5,02422114
53	4,93724557	4,95469886	4,97215215	4,98960544	5,00705874	5,02451203
54	4,93753645	4,95498975	4,97244304	4,98989633	5,00734962	5,02480292
55	4,93782734	4,95528063	4,97273393	4,99018722	5,00764051	5,0250938
56	4,93811823	4,95557152	4,97302482	4,99047811	5,0079314	5,02538469
57	4,93840912	4,95586241	4,9733157	4,990769	5,00822229	5,02567558
58	4,93870001	4,9561533	4,97360659	4,99105988	5,00851318	5,02596647
59	4,93899089	4,95644419	4,97389748	4,99135077	5,00880407	5,02625736
60	4,93928178	4,95673508	4,97418837	4,99164166	5,00909495	5,02654825

	294°	295°	296°	297°	298°	299°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	5,131268	5,14872129	5,16617459	5,18362788	5,20108117	5,21853446
1	5,13155889	5,14901218	5,16646547	5,18391877	5,20137206	5,21882535
2	5,13184978	5,14930307	5,16675636	5,18420965	5,20166295	5,21911624
3	5,13214067	5,14959396	5,16704725	5,18450054	5,20195384	5,21940713
4	5,13243155	5,14988485	5,16733814	5,18479143	5,20224472	5,21969802
5	5,13272244	5,15017573	5,16762903	5,18508232	5,20253561	5,21998891
6	5,13301333	5,15046662	5,16791992	5,18537321	5,20282650	5,22027979
7	5,13330422	5,15075751	5,1682108	5,1856641	5,20311739	5,22057068
8	5,13359511	5,1510484	5,16850169	5,18595498	5,20340828	5,22086157
9	5,13388599	5,15133929	5,16879258	5,18624587	5,20369916	5,22115246
10	5,13417688	5,15163018	5,16908347	5,18653676	5,20399005	5,22144335
11	5,13446777	5,15192106	5,16937436	5,18682765	5,20428094	5,22173423
12	5,13475866	5,15221195	5,16966524	5,18711854	5,20457183	5,22202512
13	5,13504955	5,15250284	5,16995613	5,18740943	5,20486272	5,22231601
14	5,13534044	5,15279373	5,17024702	5,18770031	5,20515361	5,22260690
15	5,13563132	5,15308462	5,17053791	5,1879912	5,20544449	5,22289779
16	5,13592221	5,1533755	5,1708288	5,18828209	5,20573538	5,22318867
17	5,1362131	5,15366639	5,17111969	5,18857298	5,20602627	5,22347956
18	5,13650399	5,15395728	5,17141057	5,18886387	5,20631716	5,22377045
19	5,13679488	5,15424817	5,17170146	5,18915475	5,20660805	5,22406134
20	5,13708577	5,15453906	5,17199235	5,18944564	5,20689894	5,22435223
21	5,13737665	5,15482995	5,17228324	5,18973653	5,20718982	5,22464312
22	5,13766754	5,15512083	5,17257413	5,19002742	5,20748071	5,224934
23	5,13795843	5,15541172	5,17286501	5,19031831	5,2077716	5,22522489
24	5,13824932	5,15570261	5,1731559	5,1906092	5,20806249	5,22551578
25	5,13854021	5,1559935	5,17344679	5,19090008	5,20835338	5,22580667
26	5,13883109	5,15628439	5,17373768	5,19119097	5,20864426	5,22609756
27	5,13912198	5,15657528	5,17402857	5,19148186	5,20893515	5,22638845
28	5,13941287	5,15686616	5,17431946	5,19177275	5,20922604	5,22667933
29	5,13970376	5,15715705	5,17461034	5,19206364	5,20951693	5,22697022
30	5,13999465	5,15744794	5,17490123	5,19235452	5,20980782	5,22726111
31	5,14028554	5,15773883	5,17519212	5,19264541	5,21009871	5,227552
32	5,14057642	5,15802972	5,17548301	5,1929363	5,21038959	5,22784289
33	5,14086731	5,1583206	5,1757739	5,19322719	5,21068048	5,22813377
34	5,1411582	5,15861149	5,17606478	5,19351808	5,21097137	5,22842466
35	5,14144909	5,15890238	5,17635567	5,19380897	5,21126226	5,22871555
36	5,14173998	5,15919327	5,17664656	5,19409985	5,21155315	5,22900644
37	5,14203086	5,15948416	5,17693745	5,19439074	5,21184403	5,22929733
38	5,14232175	5,15977505	5,17722834	5,19468163	5,21213492	5,22958822
39	5,14261264	5,16006593	5,17751923	5,19497252	5,21242581	5,2298791
40	5,14290353	5,16035682	5,17781011	5,19526341	5,2127167	5,23016999
41	5,14319442	5,16064771	5,178101	5,19555429	5,21300759	5,23046088
42	5,14348531	5,1609386	5,17839189	5,19584518	5,21329848	5,23075177
43	5,14377619	5,16122949	5,17868278	5,19613607	5,21358936	5,23104266
44	5,14406708	5,16152037	5,17897367	5,19642696	5,21388025	5,23133354
45	5,14435797	5,16181126	5,17926456	5,19671785	5,21417114	5,23162443
46	5,14464886	5,16210215	5,17955544	5,19700874	5,21446203	5,23191532
47	5,14493975	5,16239304	5,17984633	5,19729962	5,21475292	5,23220621
48	5,14523063	5,16268393	5,18013722	5,19759051	5,2150438	5,2324971
49	5,14552152	5,16297482	5,18042811	5,1978814	5,21533469	5,23278799
50	5,14581241	5,1632657	5,180719	5,19817229	5,21562558	5,23307887
51	5,1461033	5,16355659	5,18100988	5,19846318	5,21591647	5,23336976
52	5,14639419	5,16384748	5,18130077	5,19875407	5,21620736	5,23366065
53	5,14668508	5,16413837	5,18159166	5,19904495	5,21649825	5,23395154
54	5,14697596	5,16442926	5,18188255	5,19933584	5,21678913	5,23424243
55	5,14726685	5,16472014	5,18217344	5,19962673	5,21708002	5,23453331
56	5,14755774	5,16501103	5,18246433	5,19991762	5,21737091	5,2348242
57	5,14784863	5,16530192	5,18275521	5,20020851	5,2176618	5,23511509
58	5,14813952	5,16559281	5,1830461	5,20049939	5,21795269	5,23540598
59	5,14843041	5,1658837	5,18333699	5,20079028	5,21824358	5,23569687
60	5,14872129	5,16617459	5,18362788	5,20108117	5,21853446	5,23598776

Minute	300°	301°	302°	303°	304°	305°
	Radian	Radian	Radian	Radian	Radian	Radian
0	5,23598776	5,25344105	5,27089434	5,28834763	5,30580093	5,32325422
1	5,23627864	5,25373194	5,27118523	5,28863852	5,30609181	5,32354511
2	5,23656953	5,25402282	5,27147612	5,28892941	5,3063827	5,323836
3	5,23686042	5,25431371	5,27176701	5,2892203	5,30667359	5,32412688
4	5,23715131	5,2546046	5,27205789	5,28951119	5,30696448	5,32441777
5	5,2374422	5,25489549	5,27234878	5,28980207	5,30725537	5,32470866
6	5,23773309	5,25518638	5,27263967	5,29009296	5,30754626	5,32499955
7	5,23802397	5,25547727	5,27293056	5,29038385	5,30783714	5,32529044
8	5,23831486	5,25576815	5,27322145	5,29067474	5,30812803	5,32558132
9	5,23860575	5,25605904	5,27351233	5,29096563	5,30841892	5,32587221
10	5,23889664	5,25634993	5,27380322	5,29125652	5,30870981	5,3261631
11	5,23918753	5,25664082	5,27409411	5,2915474	5,3090007	5,32645399
12	5,23947841	5,25693171	5,274385	5,29183829	5,30929158	5,32674488
13	5,2397693	5,2572226	5,27467589	5,29212918	5,30958247	5,32703577
14	5,24006019	5,25751348	5,27496678	5,29242007	5,30987336	5,32732665
15	5,24035108	5,25780437	5,27525766	5,29271096	5,31016425	5,32761754
16	5,24064197	5,25809526	5,27554855	5,29300184	5,31045514	5,32790843
17	5,24093286	5,25838615	5,27583944	5,29329273	5,31074603	5,32819932
18	5,24122374	5,25867704	5,27613033	5,29358362	5,31103691	5,32849021
19	5,24151463	5,25896792	5,27642122	5,29387451	5,3113278	5,32878109
20	5,24180552	5,25925881	5,27671211	5,2941654	5,31161869	5,32907198
21	5,24209641	5,2595497	5,27700299	5,29445629	5,31190958	5,32936287
22	5,2423873	5,25984059	5,27729388	5,29474717	5,31220047	5,32965376
23	5,24267818	5,26013148	5,27758477	5,29503806	5,31249135	5,32994465
24	5,24296907	5,26042237	5,27787566	5,29532895	5,31278224	5,33023554
25	5,24325996	5,26071325	5,27816655	5,29561984	5,31307313	5,33052642
26	5,24355085	5,26100414	5,27845743	5,29591073	5,31336402	5,33081731
27	5,24384174	5,26129503	5,27874832	5,29620162	5,31365491	5,3311082
28	5,24413263	5,26158592	5,27903921	5,2964925	5,3139458	5,33139909
29	5,24442351	5,26187681	5,2793301	5,29678339	5,31423668	5,33168998
30	5,2447144	5,26216769	5,27962099	5,29707428	5,31452757	5,33198086
31	5,24500529	5,26245858	5,27991188	5,29736517	5,31481846	5,33227175
32	5,24529618	5,26274947	5,28020276	5,29765606	5,31510935	5,33256264
33	5,24558707	5,26304036	5,28049365	5,29794694	5,31540024	5,33285353
34	5,24587796	5,26333125	5,28078454	5,29823783	5,31569113	5,33314442
35	5,24616884	5,26362214	5,28107543	5,29852872	5,31598201	5,33343531
36	5,24645973	5,26391302	5,28136632	5,29881961	5,3162729	5,33372619
37	5,24675062	5,26420391	5,2816572	5,2991105	5,31656379	5,33401708
38	5,24704151	5,2644948	5,28194809	5,29940139	5,31685468	5,33430797
39	5,2473324	5,26478569	5,28223898	5,29969227	5,31714557	5,33459886
40	5,24762328	5,26507658	5,28252987	5,29998316	5,31743645	5,33488975
41	5,24791417	5,26536747	5,28282076	5,30027405	5,31772734	5,33518064
42	5,24820506	5,26565835	5,28311165	5,30056494	5,31801823	5,33547152
43	5,24849595	5,26594924	5,28340253	5,30085583	5,31830912	5,33576241
44	5,24878684	5,26624013	5,28369342	5,30114671	5,31860001	5,3360533
45	5,24907773	5,26653102	5,28398431	5,3014376	5,3188909	5,33634419
46	5,24936861	5,26682191	5,2842752	5,30172849	5,31918178	5,33663508
47	5,2496595	5,26711279	5,28456609	5,30201938	5,31947267	5,33692596
48	5,24995039	5,26740368	5,28485698	5,30231027	5,31976356	5,33721685
49	5,25024128	5,26769457	5,28514786	5,30260116	5,32005445	5,33750774
50	5,25053217	5,26798546	5,28543875	5,30289204	5,32034534	5,33779863
51	5,25082305	5,26827635	5,28572964	5,30318293	5,32063622	5,33808952
52	5,25111394	5,26856724	5,28602053	5,30347382	5,32092711	5,33838041
53	5,25140483	5,26885812	5,28631142	5,30376471	5,321218	5,33867129
54	5,25169572	5,26914901	5,2866023	5,3040556	5,32150889	5,33896218
55	5,25198661	5,2694399	5,28689319	5,30434649	5,32179978	5,33925307
56	5,2522775	5,26973079	5,28718408	5,30463737	5,32209067	5,33954396
57	5,25256838	5,27002168	5,28747497	5,30492826	5,32238155	5,33983485
58	5,25285927	5,27031256	5,28776586	5,30521915	5,32267244	5,34012573
59	5,25315016	5,27060345	5,28805675	5,30551004	5,32296333	5,34041662
60	5,25344105	5,27089434	5,28834763	5,30580093	5,32325422	5,34070751

	306°	307°	308°	309°	310°	311°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	5,34070751	5,3581608	5,3756141	5,39306739	5,41052068	5,42797397
1	5,3409984	5,35845169	5,37590498	5,39335828	5,41081157	5,42826486
2	5,34128929	5,35874258	5,37619587	5,39364917	5,41110246	5,42855575
3	5,34158018	5,35903347	5,37648676	5,39394005	5,41139335	5,42884664
4	5,34187106	5,35932436	5,37677765	5,39423094	5,41168423	5,42913753
5	5,34216195	5,35961524	5,37706854	5,39452183	5,41197512	5,42942841
6	5,34245284	5,35990613	5,37735943	5,39481272	5,41226601	5,4297193
7	5,34274373	5,36019702	5,37765031	5,39510361	5,4125569	5,43001019
8	5,34303462	5,36048791	5,3779412	5,39539449	5,41284779	5,43030108
9	5,3433255	5,3607788	5,37823209	5,39568538	5,41313868	5,43059197
10	5,34361639	5,36106969	5,37852298	5,39597627	5,41342956	5,43088286
11	5,34390728	5,36136057	5,37881387	5,39626716	5,41372045	5,43117374
12	5,34419817	5,36165146	5,37910475	5,39655805	5,41401134	5,43146463
13	5,34448906	5,36194235	5,37939564	5,39684894	5,41430223	5,43175552
14	5,34477995	5,36223324	5,37968653	5,39713982	5,41459312	5,43204641
15	5,34507083	5,36252413	5,37997742	5,39743071	5,414884	5,4323373
16	5,34536172	5,36281501	5,38026831	5,3977216	5,41517489	5,43262819
17	5,34565261	5,3631059	5,3805592	5,39801249	5,41546578	5,43291907
18	5,3459435	5,36339679	5,38085008	5,39830338	5,41575667	5,43320996
19	5,34623439	5,36368768	5,38114097	5,39859426	5,41604756	5,43350085
20	5,34652528	5,36397857	5,38143186	5,39888515	5,41633845	5,43379174
21	5,34681616	5,36426946	5,38172275	5,39917604	5,41662933	5,43408263
22	5,34710705	5,36456034	5,38201364	5,39946693	5,41692022	5,43437351
23	5,34739794	5,36485123	5,38230452	5,39975782	5,41721111	5,4346644
24	5,34768883	5,36514212	5,38259541	5,40004871	5,417502	5,43495529
25	5,34797972	5,36543301	5,3828863	5,40033959	5,41779289	5,43524618
26	5,3482706	5,3657239	5,38317719	5,40063048	5,41808377	5,43553707
27	5,34856149	5,36601479	5,38346808	5,40092137	5,41837466	5,43582796
28	5,34885238	5,36630567	5,38375897	5,40121226	5,41866555	5,43611884
29	5,34914327	5,36659656	5,38404985	5,40150315	5,41895644	5,43640973
30	5,34943416	5,36688745	5,38434074	5,40179403	5,41924733	5,43670062
31	5,34972505	5,36717834	5,38463163	5,40208492	5,41953822	5,43699151
32	5,35001593	5,36746923	5,38492252	5,40237581	5,4198291	5,4372824
33	5,35030682	5,36776011	5,38521341	5,4026667	5,42011999	5,43757328
34	5,35059771	5,368051	5,3855043	5,40295759	5,42041088	5,43786417
35	5,3508886	5,36834189	5,38579518	5,40324848	5,42070177	5,43815506
36	5,35117949	5,36863278	5,38608607	5,40353936	5,42099266	5,43844595
37	5,35147037	5,36892367	5,38637696	5,40383025	5,42128354	5,43873684
38	5,35176126	5,36921456	5,38666785	5,40412114	5,42157443	5,43902773
39	5,35205215	5,36950544	5,38695874	5,40441203	5,42186532	5,43931861
40	5,35234304	5,36979633	5,38724962	5,40470292	5,42215621	5,4396095
41	5,35263393	5,37008722	5,38754051	5,40499381	5,4224471	5,43990039
42	5,35292482	5,37037811	5,3878314	5,40528469	5,42273799	5,44019128
43	5,3532157	5,370669	5,38812229	5,40557558	5,42302887	5,44048217
44	5,35350659	5,37095988	5,38841318	5,40586647	5,42331976	5,44077305
45	5,35379748	5,37125077	5,38870407	5,40615736	5,42361065	5,44106394
46	5,35408837	5,37154166	5,38899495	5,40644825	5,42390154	5,44135483
47	5,35437926	5,37183255	5,38928584	5,40673913	5,42419243	5,44164572
48	5,35467015	5,37212344	5,38957673	5,40703002	5,42448332	5,44193661
49	5,35496103	5,37241433	5,38986762	5,40732091	5,4247742	5,4422275
50	5,35525192	5,37270521	5,39015851	5,4076118	5,42506509	5,44251838
51	5,35554281	5,3729961	5,39044939	5,40790269	5,42535598	5,44280927
52	5,3558337	5,37328699	5,39074028	5,40819358	5,42564687	5,44310016
53	5,35612459	5,37357788	5,39103117	5,40848446	5,42593776	5,44339105
54	5,35641547	5,37386877	5,39132206	5,40877535	5,42622864	5,44368194
55	5,35670636	5,37415966	5,39161295	5,40906624	5,42651953	5,44397283
56	5,35699725	5,37445054	5,39190384	5,40935713	5,42681042	5,44426371
57	5,35728814	5,37474143	5,39219472	5,40964802	5,42710131	5,4445546
58	5,35757903	5,37503232	5,39248561	5,4099389	5,4273922	5,44484549
59	5,35786992	5,37532321	5,3927765	5,41022979	5,42768309	5,44513638
60	5,3581608	5,3756141	5,39306739	5,41052068	5,42797397	5,44542727

	312°	313°	314°	315°	316°	317°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	5,44542727	5,46288056	5,48033385	5,49778714	5,51524044	5,53269373
1	5,44571815	5,46317145	5,48062474	5,49807803	5,51553132	5,53298462
2	5,44600904	5,46346234	5,48091563	5,49836892	5,51582221	5,53327551
3	5,44629993	5,46375322	5,48120652	5,49865981	5,5161131	5,53356639
4	5,44659082	5,46404411	5,4814974	5,4989507	5,51640399	5,53385728
5	5,44688171	5,464335	5,48178829	5,49924158	5,51669488	5,53414817
6	5,4471726	5,46462589	5,48207918	5,49953247	5,51698577	5,53443906
7	5,44746348	5,46491678	5,48237007	5,49982336	5,51727665	5,53472995
8	5,44775437	5,46520766	5,48266096	5,50011425	5,51756754	5,53502083
9	5,44804526	5,46549855	5,48295185	5,50040514	5,51785843	5,53531172
10	5,44833615	5,46578944	5,48324273	5,50069603	5,51814932	5,53560261
11	5,44862704	5,46608033	5,48353362	5,50098691	5,51844021	5,5358935
12	5,44891792	5,46637122	5,48382451	5,5012778	5,51873109	5,53618439
13	5,44920881	5,46666211	5,4841154	5,50156869	5,51902198	5,53647528
14	5,4494997	5,46695299	5,48440629	5,50185958	5,51931287	5,53676616
15	5,44979059	5,46724388	5,48469717	5,50215047	5,51960376	5,53705705
16	5,45008148	5,46753477	5,48498806	5,50244136	5,51989465	5,53734794
17	5,45037237	5,46782566	5,48527895	5,50273224	5,52018554	5,53763883
18	5,45066325	5,46811655	5,48556984	5,50302313	5,52047642	5,53792972
19	5,45095414	5,46840743	5,48586073	5,50331402	5,52076731	5,5382206
20	5,45124503	5,46869832	5,48615162	5,50360491	5,5210582	5,53851149
21	5,45153592	5,46898921	5,4864425	5,5038958	5,52134909	5,53880238
22	5,45182681	5,4692801	5,48673339	5,50418668	5,52163998	5,53909327
23	5,4521177	5,46957099	5,48702428	5,50447757	5,52193087	5,53938416
24	5,45240858	5,46986188	5,48731517	5,50476846	5,52222175	5,53967505
25	5,45269947	5,47015276	5,48760606	5,50505935	5,52251264	5,53996593
26	5,45299036	5,47044365	5,48789694	5,50535024	5,52280353	5,54025682
27	5,45328125	5,47073454	5,48818783	5,50564113	5,52309442	5,54054771
28	5,45357214	5,47102543	5,48847872	5,50593201	5,52338531	5,5408386
29	5,45386302	5,47131632	5,48876961	5,5062229	5,52367619	5,54112949
30	5,45415391	5,47160721	5,4890605	5,50651379	5,52396708	5,54142038
31	5,4544448	5,47189809	5,48935139	5,50680468	5,52425797	5,54171126
32	5,45473569	5,47218898	5,48964227	5,50709557	5,52454886	5,54200215
33	5,45502658	5,47247987	5,48993316	5,50738645	5,52483975	5,54229304
34	5,45531747	5,47277076	5,49022405	5,50767734	5,52513064	5,54258393
35	5,45560835	5,47306165	5,49051494	5,50796823	5,52542152	5,54287482
36	5,45589924	5,47335253	5,49080583	5,50825912	5,52571241	5,5431657
37	5,45619013	5,47364342	5,49109671	5,50855001	5,5260033	5,54345659
38	5,45648102	5,47393431	5,4913876	5,5088409	5,52629419	5,54374748
39	5,45677191	5,4742252	5,49167849	5,50913178	5,52658508	5,54403837
40	5,45706279	5,47451609	5,49196938	5,50942267	5,52687596	5,54432926
41	5,45735368	5,47480698	5,49226027	5,50971356	5,52716685	5,54462015
42	5,45764457	5,47509786	5,49255116	5,51000445	5,52745774	5,54491103
43	5,45793546	5,47538875	5,49284204	5,51029534	5,52774863	5,54520192
44	5,45822635	5,47567964	5,49313293	5,51058622	5,52803952	5,54549281
45	5,45851724	5,47597053	5,49342382	5,51087711	5,52833041	5,5457837
46	5,45880812	5,47626142	5,49371471	5,511168	5,52862129	5,54607459
47	5,45909901	5,4765523	5,4940056	5,51145889	5,52891218	5,54636547
48	5,4593899	5,47684319	5,49429649	5,51174978	5,52920307	5,54665636
49	5,45968079	5,47713408	5,49458737	5,51204067	5,52949396	5,54694725
50	5,45997168	5,47742497	5,49487826	5,51233155	5,52978485	5,54723814
51	5,46026256	5,47771586	5,49516915	5,51262244	5,53007573	5,54752903
52	5,46055345	5,47800675	5,49546004	5,51291333	5,53036662	5,54781992
53	5,46084434	5,47829763	5,49575093	5,51320422	5,53065751	5,5481108
54	5,46113523	5,47858852	5,49604181	5,51349511	5,5309484	5,54840169
55	5,46142612	5,47887941	5,4963327	5,513786	5,53123929	5,54869258
56	5,46171701	5,4791703	5,49662359	5,51407688	5,53153018	5,54898347
57	5,46200789	5,47946119	5,49691448	5,51436777	5,53182106	5,54927436
58	5,46229878	5,47975207	5,49720537	5,51465866	5,53211195	5,54956524
59	5,46258967	5,48004296	5,49749626	5,51494955	5,53240284	5,54985613
60	5,46288056	5,48033385	5,49778714	5,51524044	5,53269373	5,55014702

	318°	319°	320°	321°	322°	323°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	5,55014702	5,56760031	5,58505361	5,6025069	5,61996019	5,63741348
1	5,55043791	5,5678912	5,58534449	5,60279779	5,62025108	5,63770437
2	5,5507288	5,56818209	5,58563538	5,60308868	5,62054197	5,63799526
3	5,55101969	5,56847298	5,58592627	5,60337956	5,62083286	5,63828615
4	5,55131057	5,56876387	5,58621716	5,60367045	5,62112374	5,63857704
5	5,55160146	5,56905475	5,58650805	5,60396134	5,62141463	5,63886792
6	5,55189235	5,56934564	5,58679894	5,60425223	5,62170552	5,63915881
7	5,55218324	5,56963653	5,58708982	5,60454312	5,62199641	5,6394497
8	5,55247413	5,56992742	5,58738071	5,604834	5,6222873	5,63974059
9	5,55276502	5,57021831	5,5876716	5,60512489	5,62257819	5,64003148
10	5,5530559	5,5705092	5,58796249	5,60541578	5,62286907	5,64032237
11	5,55334679	5,57080008	5,58825338	5,60570667	5,62315996	5,64061325
12	5,55363768	5,57109097	5,58854426	5,60599756	5,62345085	5,64090414
13	5,55392857	5,57138186	5,58883515	5,60628845	5,62374174	5,64119503
14	5,55421946	5,57167275	5,58912604	5,60657933	5,62403263	5,64148592
15	5,55451034	5,57196364	5,58941693	5,60687022	5,62432351	5,64177681
16	5,55480123	5,57225453	5,58970782	5,60716111	5,6246144	5,6420677
17	5,55509212	5,57254541	5,58999871	5,607452	5,62490529	5,64235858
18	5,55538301	5,5728363	5,59028959	5,60774289	5,62519618	5,64264947
19	5,5556739	5,57312719	5,59058048	5,60803377	5,62548707	5,64294036
20	5,55596479	5,57341808	5,59087137	5,60832466	5,62577796	5,64323125
21	5,55625567	5,57370897	5,59116226	5,60861555	5,62606884	5,64352214
22	5,55654656	5,57399985	5,59145315	5,60890644	5,62635973	5,64381302
23	5,55683745	5,57429074	5,59174404	5,60919733	5,62665062	5,64410391
24	5,55712834	5,57458163	5,59203492	5,60948822	5,62694151	5,6443948
25	5,55741923	5,57487252	5,59232581	5,6097791	5,6272324	5,64468569
26	5,55771011	5,57516341	5,5926167	5,61006999	5,62752328	5,64497658
27	5,558001	5,5754543	5,59290759	5,61036088	5,62781417	5,64526747
28	5,55829189	5,57574518	5,59319848	5,61065177	5,62810506	5,64555835
29	5,55858278	5,57603607	5,59348936	5,61094266	5,62839595	5,64584924
30	5,55887367	5,57632696	5,59378025	5,61123355	5,62868684	5,64614013
31	5,55916456	5,57661785	5,59407114	5,61152443	5,62897773	5,64643102
32	5,55945544	5,57690874	5,59436203	5,61181532	5,62926861	5,64672191
33	5,55974633	5,57719962	5,59465292	5,61210621	5,6295595	5,64701279
34	5,56003722	5,57749051	5,59494381	5,6123971	5,62985039	5,64730368
35	5,56032811	5,5777814	5,59523469	5,61268799	5,63014128	5,64759457
36	5,560619	5,57807229	5,59552558	5,61297887	5,63043217	5,64788546
37	5,56090989	5,57836318	5,59581647	5,61326976	5,63072306	5,64817635
38	5,56120077	5,57865407	5,59610736	5,61356065	5,63101394	5,64846724
39	5,56149166	5,57894495	5,59639825	5,61385154	5,63130483	5,64875812
40	5,56178255	5,57923584	5,59668913	5,61414243	5,63159572	5,64904901
41	5,56207344	5,57952673	5,59698002	5,61443332	5,63188661	5,6493399
42	5,56236433	5,57981762	5,59727091	5,6147242	5,6321775	5,64963079
43	5,56265521	5,58010851	5,5975618	5,61501509	5,63246838	5,64992168
44	5,5629461	5,5803994	5,59785269	5,61530598	5,63275927	5,65021257
45	5,56323699	5,58069028	5,59814358	5,61559687	5,63305016	5,65050345
46	5,56352788	5,58098117	5,59843446	5,61588776	5,63334105	5,65079434
47	5,56381877	5,58127206	5,59872535	5,61617864	5,63363194	5,65108523
48	5,56410966	5,58156295	5,59901624	5,61646953	5,63392283	5,65137612
49	5,56440054	5,58185384	5,59930713	5,61676042	5,63421371	5,65166701
50	5,56469143	5,58214472	5,59959802	5,61705131	5,6345046	5,65195789
51	5,56498232	5,58243561	5,59988891	5,6173422	5,63479549	5,65224878
52	5,56527321	5,5827265	5,60017979	5,61763309	5,63508638	5,65253967
53	5,5655641	5,58301739	5,60047068	5,61792397	5,63537727	5,65283056
54	5,56585498	5,58330828	5,60076157	5,61821486	5,63566815	5,65312145
55	5,56614587	5,58359917	5,60105246	5,61850575	5,63595904	5,65341234
56	5,56643676	5,58389005	5,60134335	5,61879664	5,63624993	5,65370322
57	5,56672765	5,58418094	5,60163423	5,61908753	5,63654082	5,65399411
58	5,56701854	5,58447183	5,60192512	5,61937842	5,63683171	5,654285
59	5,56730943	5,58476272	5,60221601	5,6196693	5,6371226	5,65457589
60	5,56760031	5,58505361	5,6025069	5,61996019	5,63741348	5,65486678

	324°	325°	326°	327°	328°	329°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	5,65486678	5,67232007	5,68977336	5,70722665	5,72467995	5,74213324
1	5,65515766	5,67261096	5,69006425	5,70751754	5,72497083	5,74242413
2	5,65544855	5,67290185	5,69035514	5,70780843	5,72526172	5,74271502
3	5,65573944	5,67319273	5,69064603	5,70809932	5,72555261	5,7430059
4	5,65603033	5,67348362	5,69093691	5,70839021	5,7258435	5,74329679
5	5,65632122	5,67377451	5,6912278	5,7086811	5,72613439	5,74358768
6	5,65661211	5,6740654	5,69151869	5,70897198	5,72642528	5,74387857
7	5,65690299	5,67435629	5,69180958	5,70926287	5,72671616	5,74416946
8	5,65719388	5,67464717	5,69210047	5,70955376	5,72700705	5,74446034
9	5,65748477	5,67493806	5,69239136	5,70984465	5,72729794	5,74475123
10	5,65777566	5,67522895	5,69268224	5,71013554	5,72758883	5,74504212
11	5,65806655	5,67551984	5,69297313	5,71042642	5,72787972	5,74533301
12	5,65835743	5,67581073	5,69326402	5,71071731	5,72817061	5,7456239
13	5,65864832	5,67610162	5,69355491	5,7110082	5,72846149	5,74591479
14	5,65893921	5,6763925	5,6938458	5,71129909	5,72875238	5,74620567
15	5,6592301	5,67668339	5,69413668	5,71158998	5,72904327	5,74649656
16	5,65952099	5,67697428	5,69442757	5,71188087	5,72933416	5,74678745
17	5,65981188	5,67726517	5,69471846	5,71217175	5,72962505	5,74707834
18	5,66010276	5,67755606	5,69500935	5,71246264	5,72991593	5,74736923
19	5,66039365	5,67784694	5,69530024	5,71275353	5,73020682	5,74766012
20	5,66068454	5,67813783	5,69559113	5,71304442	5,73049771	5,747951
21	5,66097543	5,67842872	5,69588201	5,71333531	5,7307886	5,74824189
22	5,66126632	5,67871961	5,6961729	5,71362619	5,73107949	5,74853278
23	5,66155721	5,6790105	5,69646379	5,71391708	5,73137038	5,74882367
24	5,66184809	5,67930139	5,69675468	5,71420797	5,73166126	5,74911456
25	5,66213898	5,67959227	5,69704557	5,71449886	5,73195215	5,74940544
26	5,66242987	5,67988316	5,69733645	5,71478975	5,73224304	5,74969633
27	5,66272076	5,68017405	5,69762734	5,71508064	5,73253393	5,74998722
28	5,66301165	5,68046494	5,69791823	5,71537152	5,73282482	5,75027811
29	5,66330253	5,68075583	5,69820912	5,71566241	5,7331157	5,750569
30	5,66359342	5,68104672	5,69850001	5,7159533	5,73340659	5,75085989
31	5,66388431	5,6813376	5,6987909	5,71624419	5,73369748	5,75115077
32	5,6641752	5,68162849	5,69908178	5,71653508	5,73398837	5,75144166
33	5,66446609	5,68191938	5,69937267	5,71682596	5,73427926	5,75173255
34	5,66475698	5,68221027	5,69966356	5,71711685	5,73457015	5,75202344
35	5,66504786	5,68250116	5,69995445	5,71740774	5,73486103	5,75231433
36	5,66533875	5,68279204	5,70024534	5,71769863	5,73515192	5,75260521
37	5,66562964	5,68308293	5,70053623	5,71798952	5,73544281	5,7528961
38	5,66592053	5,68337382	5,70082711	5,71828041	5,7357337	5,75318699
39	5,66621142	5,68366471	5,701118	5,71857129	5,73602459	5,75347788
40	5,6665023	5,6839556	5,70140889	5,71886218	5,73631547	5,75376877
41	5,66679319	5,68424649	5,70169978	5,71915307	5,73660636	5,75405966
42	5,66708408	5,68453737	5,70199067	5,71944396	5,73689725	5,75435054
43	5,66737497	5,68482826	5,70228155	5,71973485	5,73718814	5,75464143
44	5,66766586	5,68511915	5,70257244	5,72002574	5,73747903	5,75493232
45	5,66795675	5,68541004	5,70286333	5,72031662	5,73776992	5,75522321
46	5,66824763	5,68570093	5,70315422	5,72060751	5,7380608	5,7555141
47	5,66853852	5,68599181	5,70344511	5,7208984	5,73835169	5,75580498
48	5,66882941	5,6862827	5,703736	5,72118929	5,73864258	5,75609587
49	5,6691203	5,68657359	5,70402688	5,72148018	5,73893347	5,75638676
50	5,66941119	5,68686448	5,70431777	5,72177106	5,73922436	5,75667765
51	5,66970208	5,68715537	5,70460866	5,72206195	5,73951525	5,75696854
52	5,66999296	5,68744626	5,70489955	5,72235284	5,73980613	5,75725943
53	5,67028385	5,68773714	5,70519044	5,72264373	5,74009702	5,75755031
54	5,67057474	5,68802803	5,70548132	5,72293462	5,74038791	5,7578412
55	5,67086563	5,68831892	5,70577221	5,72322551	5,7406788	5,75813209
56	5,67115652	5,68860981	5,7060631	5,72351639	5,74096969	5,75842298
57	5,6714474	5,6889007	5,70635399	5,72380728	5,74126057	5,75871387
58	5,67173829	5,68919159	5,70664488	5,72409817	5,74155146	5,75900476
59	5,67202918	5,68948247	5,70693577	5,72438906	5,74184235	5,75929564
60	5,67232007	5,68977336	5,70722665	5,72467995	5,74213324	5,75958653

	330°	331°	332°	333°	334°	335°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	5,75958653	5,77703982	5,79449312	5,81194641	5,8293997	5,84685299
1	5,75987742	5,77733071	5,794784	5,8122373	5,82969059	5,84714388
2	5,76016831	5,7776216	5,79507489	5,81252819	5,82998148	5,84743477
3	5,7604592	5,77791249	5,79536578	5,81281907	5,83027237	5,84772566
4	5,76075008	5,77820338	5,79565667	5,81310996	5,83056325	5,84801655
5	5,76104097	5,77849427	5,79594756	5,81340085	5,83085414	5,84830744
6	5,76133186	5,77878515	5,79623845	5,81369174	5,83114503	5,84859832
7	5,76162275	5,77907604	5,79652933	5,81398263	5,83143592	5,84888921
8	5,76191364	5,77936693	5,79682022	5,81427351	5,83172681	5,8491801
9	5,76220453	5,77965782	5,79711111	5,8145644	5,8320177	5,84947099
10	5,76249541	5,77994871	5,797402	5,81485529	5,83230858	5,84976188
11	5,7627863	5,78023959	5,79769289	5,81514618	5,83259947	5,85005276
12	5,76307719	5,78053048	5,79798378	5,81543707	5,83289036	5,85034365
13	5,76336808	5,78082137	5,79827466	5,81572796	5,83318125	5,85063454
14	5,76365897	5,78111226	5,79856555	5,81601884	5,83347214	5,85092543
15	5,76394985	5,78140315	5,79885644	5,81630973	5,83376302	5,85121632
16	5,76424074	5,78169404	5,79914733	5,81660062	5,83405391	5,85150721
17	5,76453163	5,78198492	5,79943822	5,81689151	5,8343448	5,85179809
18	5,76482252	5,78227581	5,7997291	5,8171824	5,83463569	5,85208898
19	5,76511341	5,7825667	5,80001999	5,81747329	5,83492658	5,85237987
20	5,7654043	5,78285759	5,80031088	5,81776417	5,83521747	5,85267076
21	5,76569518	5,78314848	5,80060177	5,81805506	5,83550835	5,85296165
22	5,76598607	5,78343936	5,80089266	5,81834595	5,83579924	5,85325253
23	5,76627696	5,78373025	5,80118355	5,81863684	5,83609013	5,85354342
24	5,76656785	5,78402114	5,80147443	5,81892773	5,83638102	5,85383431
25	5,76685874	5,78431203	5,80176532	5,81921861	5,83667191	5,8541252
26	5,76714963	5,78460292	5,80205621	5,8195095	5,8369628	5,85441609
27	5,76744051	5,78489381	5,8023471	5,81980039	5,83725368	5,85470698
28	5,7677314	5,78518469	5,80263799	5,82009128	5,83754457	5,85499786
29	5,76802229	5,78547558	5,80292887	5,82038217	5,83783546	5,85528875
30	5,76831318	5,78576647	5,80321976	5,82067306	5,83812635	5,85557964
31	5,76860407	5,78605736	5,80351065	5,82096394	5,83841724	5,85587053
32	5,76889495	5,78634825	5,80380154	5,82125483	5,83870812	5,85616142
33	5,76918584	5,78663913	5,80409243	5,82154572	5,83899901	5,85645231
34	5,76947673	5,78693002	5,80438332	5,82183661	5,8392899	5,85674319
35	5,76976762	5,78722091	5,8046742	5,8221275	5,83958079	5,85703408
36	5,77005851	5,7875118	5,80496509	5,82241838	5,83987168	5,85732497
37	5,7703494	5,78780269	5,80525598	5,82270927	5,84016257	5,85761586
38	5,77064028	5,78809358	5,80554687	5,82300016	5,84045345	5,85790675
39	5,77093117	5,78838446	5,80583776	5,82329105	5,84074434	5,85819763
40	5,77122206	5,78867535	5,80612864	5,82358194	5,84103523	5,85848852
41	5,77151295	5,78896624	5,80641953	5,82387283	5,84132612	5,85877941
42	5,77180384	5,78925713	5,80671042	5,82416371	5,84161701	5,8590703
43	5,77209472	5,78954802	5,80700131	5,8244546	5,84190789	5,85936119
44	5,77238561	5,78983891	5,8072922	5,82474549	5,84219878	5,85965208
45	5,7726765	5,79012979	5,80758309	5,82503638	5,84248967	5,85994296
46	5,77296739	5,79042068	5,80787397	5,82532727	5,84278056	5,86023385
47	5,77325828	5,79071157	5,80816486	5,82561815	5,84307145	5,86052474
48	5,77354917	5,79100246	5,80845575	5,82590904	5,84336234	5,86081563
49	5,77384005	5,79129335	5,80874664	5,82619993	5,84365322	5,86110652
50	5,77413094	5,79158423	5,80903753	5,82649082	5,84394411	5,8613974
51	5,77442183	5,79187512	5,80932842	5,82678171	5,844235	5,86168829
52	5,77471272	5,79216601	5,8096193	5,8270726	5,84452589	5,86197918
53	5,77500361	5,7924569	5,80991019	5,82736348	5,84481678	5,86227007
54	5,77529449	5,79274779	5,81020108	5,82765437	5,84510766	5,86256096
55	5,77558538	5,79303868	5,81049197	5,82794526	5,84539855	5,86285185
56	5,77587627	5,79332956	5,81078286	5,82823615	5,84568944	5,86314273
57	5,77616716	5,79362045	5,81107374	5,82852704	5,84598033	5,86343362
58	5,77645805	5,79391134	5,81136463	5,82881793	5,84627122	5,86372451
59	5,77674894	5,79420223	5,81165552	5,82910881	5,84656211	5,8640154
60	5,77703982	5,79449312	5,81194641	5,8293997	5,84685299	5,86430629

	336°	337°	338°	339°	340°	341°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	5,86430629	5,88175958	5,89921287	5,91666616	5,93411946	5,95157275
1	5,86459717	5,88205047	5,89950376	5,91695705	5,93441034	5,95186364
2	5,86488806	5,88234136	5,89979465	5,91724794	5,93470123	5,95215453
3	5,86517895	5,88263224	5,90008554	5,91753883	5,93499212	5,95244541
4	5,86546984	5,88292313	5,90037642	5,91782972	5,93528301	5,9527363
5	5,86576073	5,88321402	5,90066731	5,91812061	5,9355739	5,95302719
6	5,86605162	5,88350491	5,9009582	5,91841149	5,93586479	5,95331808
7	5,8663425	5,8837958	5,90124909	5,91870238	5,93615567	5,95360897
8	5,86663339	5,88408668	5,90153998	5,91899327	5,93644656	5,95389985
9	5,86692428	5,88437757	5,90183087	5,91928416	5,93673745	5,95419074
10	5,86721517	5,88466846	5,90212175	5,91957505	5,93702834	5,95448163
11	5,86750606	5,88495935	5,90241264	5,91986593	5,93731923	5,95477252
12	5,86779695	5,88525024	5,90270353	5,92015682	5,93761012	5,95506341
13	5,86808783	5,88554113	5,90299442	5,92044771	5,937901	5,9553543
14	5,86837872	5,88583201	5,90328531	5,9207386	5,93819189	5,95564518
15	5,86866961	5,8861229	5,90357619	5,92102949	5,93848278	5,95593607
16	5,8689605	5,88641379	5,90386708	5,92132038	5,93877367	5,95622696
17	5,86925139	5,88670468	5,90415797	5,92161126	5,93906456	5,95651785
18	5,86954227	5,88699557	5,90444886	5,92190215	5,93935544	5,95680874
19	5,86983316	5,88728646	5,90473975	5,92219304	5,93964633	5,95709963
20	5,87012405	5,88757734	5,90503064	5,92248393	5,93993722	5,95739051
21	5,87041494	5,88786823	5,90532152	5,92277482	5,94022811	5,9576814
22	5,87070583	5,88815912	5,90561241	5,9230657	5,940519	5,95797229
23	5,87099672	5,88845001	5,9059033	5,92335659	5,94080989	5,95826318
24	5,8712876	5,8887409	5,90619419	5,92364748	5,94110077	5,95855407
25	5,87157849	5,88903178	5,90648508	5,92393837	5,94139166	5,95884495
26	5,87186938	5,88932267	5,90677597	5,92422926	5,94168255	5,95913584
27	5,87216027	5,88961356	5,90706685	5,92452015	5,94197344	5,95942673
28	5,87245116	5,88990445	5,90735774	5,92481103	5,94226433	5,95971762
29	5,87274204	5,89019534	5,90764863	5,92510192	5,94255521	5,96000851
30	5,87303293	5,89048623	5,90793952	5,92539281	5,9428461	5,9602994
31	5,87332382	5,89077711	5,90823041	5,9256837	5,94313699	5,96059028
32	5,87361471	5,891068	5,90852129	5,92597459	5,94342788	5,96088117
33	5,8739056	5,89135889	5,90881218	5,92626548	5,94371877	5,96117206
34	5,87419649	5,89164978	5,90910307	5,92655636	5,94400966	5,96146295
35	5,87448737	5,89194067	5,90939396	5,92684725	5,94430054	5,96175384
36	5,87477826	5,89223155	5,90968485	5,92713814	5,94459143	5,96204472
37	5,87506915	5,89252244	5,90997574	5,92742903	5,94488232	5,96233561
38	5,87536004	5,89281333	5,91026662	5,92771992	5,94517321	5,9626265
39	5,87565093	5,89310422	5,91055751	5,9280108	5,9454641	5,96291739
40	5,87594182	5,89339511	5,9108484	5,92830169	5,94575499	5,96320828
41	5,8762327	5,893686	5,91113929	5,92859258	5,94604587	5,96349917
42	5,87652359	5,89397688	5,91143018	5,92888347	5,94633676	5,96379005
43	5,87681448	5,89426777	5,91172106	5,92917436	5,94662765	5,96408094
44	5,87710537	5,89455866	5,91201195	5,92946525	5,94691854	5,96437183
45	5,87739626	5,89484955	5,91230284	5,92975613	5,94720943	5,96466272
46	5,87768714	5,89514044	5,91259373	5,93004702	5,94750031	5,96495361
47	5,87797803	5,89543133	5,91288462	5,93033791	5,9477912	5,9652445
48	5,87826892	5,89572221	5,91317551	5,9306288	5,94808209	5,96553538
49	5,87855981	5,8960131	5,91346639	5,93091969	5,94837298	5,96582627
50	5,8788507	5,89630399	5,91375728	5,93121057	5,94866387	5,96611716
51	5,87914159	5,89659488	5,91404817	5,93150146	5,94895476	5,96640805
52	5,87943247	5,89688577	5,91433906	5,93179235	5,94924564	5,96669894
53	5,87972336	5,89717665	5,91462995	5,93208324	5,94953653	5,96698982
54	5,88001425	5,89746754	5,91492084	5,93237413	5,94982742	5,96728071
55	5,88030514	5,89775843	5,91521172	5,93266502	5,95011831	5,9675716
56	5,88059603	5,89804932	5,91550261	5,9329559	5,9504092	5,96786249
57	5,88088691	5,89834021	5,9157935	5,93324679	5,95070008	5,96815338
58	5,8811778	5,8986311	5,91608439	5,93353768	5,95099097	5,96844427
59	5,88146869	5,89892198	5,91637528	5,93382857	5,95128186	5,96873515
60	5,88175958	5,89921287	5,91666616	5,93411946	5,95157275	5,96902604

	342°	343°	344°	345°	346°	347°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	5,96902604	5,98647933	6,00393263	6,02138592	6,03883921	6,0562925
1	5,96931693	5,98677022	6,00422352	6,02167681	6,0391301	6,05658339
2	5,96960782	5,98706111	6,0045144	6,0219677	6,03942099	6,05687428
3	5,96989871	5,987352	6,00480529	6,02225858	6,03971188	6,05716517
4	5,97018959	5,98764289	6,00509618	6,02254947	6,04000276	6,05745606
5	5,97048048	5,98793378	6,00538707	6,02284036	6,04029365	6,05774695
6	5,97077137	5,98822466	6,00567796	6,02313125	6,04058454	6,05803783
7	5,97106226	5,98851555	6,00596884	6,02342214	6,04087543	6,05832872
8	5,97135315	5,98880644	6,00625973	6,02371303	6,04116632	6,05861961
9	5,97164404	5,98909733	6,00655062	6,02400391	6,04145721	6,0589105
10	5,97193492	5,98938822	6,00684151	6,0242948	6,04174809	6,05920139
11	5,97222581	5,9896791	6,0071324	6,02458569	6,04203898	6,05949227
12	5,9725167	5,98996999	6,00742329	6,02487658	6,04232987	6,05978316
13	5,97280759	5,99026088	6,00771417	6,02516747	6,04262076	6,06007405
14	5,97309848	5,99055177	6,00800506	6,02545835	6,04291165	6,06036494
15	5,97338936	5,99084266	6,00829595	6,02574924	6,04320254	6,06065583
16	5,97368025	5,99113355	6,00858684	6,02604013	6,04349342	6,06094672
17	5,97397114	5,99142443	6,00887773	6,02633102	6,04378431	6,0612376
18	5,97426203	5,99171532	6,00916861	6,02662191	6,0440752	6,06152849
19	5,97455292	5,99200621	6,0094595	6,0269128	6,04436609	6,06181938
20	5,97484381	5,9922971	6,00975039	6,02720368	6,04465698	6,06211027
21	5,97513469	5,99258799	6,01004128	6,02749457	6,04494786	6,06240116
22	5,97542558	5,99287887	6,01033217	6,02778546	6,04523875	6,06269205
23	5,97571647	5,99316976	6,01062306	6,02807635	6,04552964	6,06298293
24	5,97600736	5,99346065	6,01091394	6,02836724	6,04582053	6,06327382
25	5,97629825	5,99375154	6,01120483	6,02865812	6,04611142	6,06356471
26	5,97658914	5,99404243	6,01149572	6,02894901	6,04640231	6,0638556
27	5,97688002	5,99433332	6,01178661	6,0292399	6,04669319	6,06414649
28	5,97717091	5,9946242	6,0120775	6,02953079	6,04698408	6,06443737
29	5,9774618	5,99491509	6,01236838	6,02982168	6,04727497	6,06472826
30	5,97775269	5,99520598	6,01265927	6,03011257	6,04756586	6,06501915
31	5,97804358	5,99549687	6,01295016	6,03040345	6,04785675	6,06531004
32	5,97833446	5,99578776	6,01324105	6,03069434	6,04814763	6,06560093
33	5,97862535	5,99607865	6,01353194	6,03098523	6,04843852	6,06589182
34	5,97891624	5,99636953	6,01382283	6,03127612	6,04872941	6,0661827
35	5,97920713	5,99666042	6,01411371	6,03156701	6,0490203	6,06647359
36	5,97949802	5,99695131	6,0144046	6,03185789	6,04931119	6,06676448
37	5,97978891	5,9972422	6,01469549	6,03214878	6,04960208	6,06705537
38	5,98007979	5,99753309	6,01498638	6,03243967	6,04989296	6,06734626
39	5,98037068	5,99782397	6,01527727	6,03273056	6,05018385	6,06763714
40	5,98066157	5,99811486	6,01556816	6,03302145	6,05047474	6,06792803
41	5,98095246	5,99840575	6,01585904	6,03331234	6,05076563	6,06821892
42	5,98124335	5,99869664	6,01614993	6,03360322	6,05105652	6,06850981
43	5,98153423	5,99898753	6,01644082	6,03389411	6,0513474	6,0688007
44	5,98182512	5,99927842	6,01673171	6,034185	6,05163829	6,06909159
45	5,98211601	5,9995693	6,0170226	6,03447589	6,05192918	6,06938247
46	5,9824069	5,99986019	6,01731348	6,03476678	6,05222007	6,06967336
47	5,98269779	6,00015108	6,01760437	6,03505767	6,05251096	6,06996425
48	5,98298868	6,00044197	6,01789526	6,03534855	6,05280185	6,07025514
49	5,98327956	6,00073286	6,01818615	6,03563944	6,05309273	6,07054603
50	5,98357045	6,00102374	6,01847704	6,03593033	6,05338362	6,07083691
51	5,98386134	6,00131463	6,01876793	6,03622122	6,05367451	6,0711278
52	5,98415223	6,00160552	6,01905881	6,03651211	6,0539654	6,07141869
53	5,98444312	6,00189641	6,0193497	6,03680299	6,05425629	6,07170958
54	5,98473401	6,0021873	6,01964059	6,03709388	6,05454718	6,07200047
55	5,98502489	6,00247819	6,01993148	6,03738477	6,05483806	6,07229136
56	5,98531578	6,00276907	6,02022237	6,03767566	6,05512895	6,07258224
57	5,98560667	6,00305996	6,02051325	6,03796655	6,05541984	6,07287313
58	5,98589756	6,00335085	6,02080414	6,03825744	6,05571073	6,07316402
59	5,98618845	6,00364174	6,02109503	6,03854832	6,05600162	6,07345491
60	5,98647933	6,00393263	6,02138592	6,03883921	6,0562925	6,0737458

	348°	349°	350°	351°	352°	353°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	6,0737458	6,09119909	6,10865238	6,12610567	6,14355897	6,16101226
1	6,07403669	6,09148998	6,10894327	6,12639656	6,14384986	6,16130315
2	6,07432757	6,09178087	6,10923416	6,12668745	6,14414074	6,16159404
3	6,07461846	6,09207175	6,10952505	6,12697834	6,14443163	6,16188492
4	6,07490935	6,09236264	6,10981593	6,12726923	6,14472252	6,16217581
5	6,07520024	6,09265353	6,11010682	6,12756012	6,14501341	6,16246670
6	6,07549113	6,09294442	6,11039771	6,12785101	6,14530430	6,16275759
7	6,07578201	6,09323531	6,11068860	6,12814189	6,14559518	6,16304848
8	6,07607290	6,09352620	6,11097949	6,12843278	6,14588607	6,16333937
9	6,07636379	6,09381708	6,11127038	6,12872367	6,14617696	6,16363025
10	6,07665468	6,09410797	6,11156126	6,12901456	6,14646785	6,16392114
11	6,07694557	6,09439886	6,11185215	6,12930544	6,14675874	6,16421203
12	6,07723646	6,09468975	6,11214304	6,12959633	6,14704963	6,16450292
13	6,07752734	6,09498064	6,11243393	6,12988722	6,14734051	6,16479381
14	6,07781823	6,09527152	6,11272482	6,13017811	6,14763140	6,16508469
15	6,07810912	6,09556241	6,11301571	6,13046900	6,14792229	6,16537558
16	6,07840001	6,09585330	6,11330659	6,13075989	6,14821318	6,16566647
17	6,07869090	6,09614419	6,11359748	6,13105077	6,14850407	6,16595736
18	6,07898178	6,09643508	6,11388837	6,13134166	6,14879495	6,16624825
19	6,07927267	6,09672597	6,11417926	6,13163255	6,14908584	6,16653914
20	6,07956356	6,09701685	6,11447015	6,13192344	6,14937673	6,16683002
21	6,07985445	6,09730774	6,11476103	6,13221433	6,14966762	6,16712091
22	6,08014534	6,09759863	6,11505192	6,13250522	6,14995851	6,16741180
23	6,08043623	6,09788952	6,11534281	6,13279611	6,15024940	6,16770269
24	6,08072711	6,09818041	6,11563370	6,13308699	6,15054028	6,16799358
25	6,08101800	6,09847129	6,11592459	6,13337788	6,15083117	6,16828446
26	6,08130889	6,09876218	6,11621548	6,13366877	6,15112206	6,16857535
27	6,08159978	6,09905307	6,11650636	6,13395966	6,15141295	6,16886624
28	6,08189067	6,09934396	6,11679725	6,13425054	6,15170384	6,16915713
29	6,08218155	6,09963485	6,11708814	6,13454143	6,15199473	6,16944802
30	6,08247244	6,09992574	6,11737903	6,13483232	6,15228561	6,16973891
31	6,08276333	6,10021662	6,11766992	6,13512321	6,15257650	6,17002979
32	6,08305422	6,10050751	6,11796081	6,13541410	6,15286739	6,17032068
33	6,08334511	6,10079840	6,11825169	6,13570499	6,15315828	6,17061157
34	6,08363600	6,10108929	6,11854258	6,13599588	6,15344917	6,17090246
35	6,08392688	6,10138018	6,11883347	6,13628676	6,15374005	6,17119335
36	6,08421777	6,10167106	6,11912436	6,13657765	6,15403094	6,17148424
37	6,08450866	6,10196195	6,11941525	6,13686854	6,15432183	6,17177512
38	6,08479955	6,10225284	6,11970613	6,13715943	6,15461272	6,17206601
39	6,08509044	6,10254373	6,11999702	6,13745031	6,15490361	6,17235690
40	6,08538133	6,10283462	6,12028791	6,13774120	6,15519450	6,17264779
41	6,08567221	6,10312551	6,12057880	6,13803209	6,15548538	6,17293868
42	6,08596310	6,10341639	6,12086969	6,13832298	6,15577627	6,17322956
43	6,08625399	6,10370728	6,12116057	6,13861387	6,15606716	6,17352045
44	6,08654488	6,10399817	6,12145146	6,13890476	6,15635805	6,17381134
45	6,08683577	6,10428906	6,12174235	6,13919564	6,15664894	6,17410223
46	6,08712665	6,10457995	6,12203324	6,13948653	6,15693982	6,17439312
47	6,08741754	6,10487084	6,12232413	6,13977742	6,15723071	6,17468401
48	6,08770843	6,10516172	6,12261502	6,14006831	6,15752160	6,17497489
49	6,08799932	6,10545261	6,12290591	6,14035920	6,15781249	6,17526578
50	6,08829021	6,10574350	6,12319679	6,14065008	6,15810338	6,17555667
51	6,08858110	6,10603439	6,12348768	6,14094097	6,15839427	6,17584756
52	6,08887198	6,10632528	6,12377857	6,14123186	6,15868515	6,17613845
53	6,08916287	6,10661616	6,12406946	6,14152275	6,15897604	6,17642934
54	6,08945376	6,10690705	6,12436035	6,14181364	6,15926693	6,17672022
55	6,08974465	6,10719794	6,12465123	6,14210453	6,15955782	6,17701111
56	6,09003554	6,10748883	6,12494212	6,14239541	6,15984871	6,17730200
57	6,09032642	6,10777972	6,12523301	6,14268630	6,16013959	6,17759289
58	6,09061731	6,10807061	6,12552390	6,14297719	6,16043048	6,17788378
59	6,09090820	6,10836149	6,12581479	6,14326808	6,16072137	6,17817466
60	6,09119909	6,10865238	6,12610567	6,14355897	6,16101226	6,17846555

	354°	355°	356°	357°	358°	359°
Minute	Radian	Radian	Radian	Radian	Radian	Radian
0	6,17846555	6,19591884	6,21337214	6,23082543	6,24827872	0,68067841
1	6,17875644	6,19620973	6,21366303	6,23111632	6,24856961	0,6809693
2	6,17904733	6,19650062	6,21395391	6,23140721	6,2488605	0,68126018
3	6,17933822	6,19679151	6,2142448	6,23169809	6,24915139	0,68155107
4	6,1796291	6,1970824	6,21453569	6,23198898	6,24944227	0,68184196
5	6,17991999	6,19737329	6,21482658	6,23227987	6,24973316	0,68213285
6	6,18021088	6,19766417	6,21511747	6,23257076	6,25002405	0,68242374
7	6,18050177	6,19795506	6,21540835	6,23286165	6,25031494	0,68271463
8	6,18079266	6,19824595	6,21569924	6,23315254	6,25060583	0,68300551
9	6,18108355	6,19853684	6,21599013	6,23344342	6,25089672	0,6832964
10	6,18137443	6,19882773	6,21628102	6,23373431	6,2511876	0,68358729
11	6,18166532	6,19911861	6,21657191	6,2340252	6,25147849	0,68387818
12	6,18195621	6,1994095	6,2168628	6,23431609	6,25176938	0,68416907
13	6,1822471	6,19970039	6,21715368	6,23460698	6,25206027	0,68445995
14	6,18253799	6,19999128	6,21744457	6,23489786	6,25235116	0,68475084
15	6,18282888	6,20028217	6,21773546	6,23518875	6,25264205	0,68504173
16	6,18311976	6,20057306	6,21802635	6,23547964	6,25293293	0,68533262
17	6,18341065	6,20086394	6,21831724	6,23577053	6,25322382	0,68562351
18	6,18370154	6,20115483	6,21860812	6,23606142	6,25351471	0,6859144
19	6,18399243	6,20144572	6,21889901	6,23635231	6,2538056	0,68620528
20	6,18428332	6,20173661	6,2191899	6,23664319	6,25409649	0,68649617
21	6,1845742	6,2020275	6,21948079	6,23693408	6,25438737	0,68678706
22	6,18486509	6,20231839	6,21977168	6,23722497	6,25467826	0,68707795
23	6,18515598	6,20260927	6,22006257	6,23751586	6,25496915	0,68736884
24	6,18544687	6,20290016	6,22035345	6,23780675	6,25526004	0,68765973
25	6,18573776	6,20319105	6,22064434	6,23809763	6,25555093	0,68795061
26	6,18602865	6,20348194	6,22093523	6,23838852	6,25584182	0,6882415
27	6,18631953	6,20377283	6,22122612	6,23867941	6,2561327	0,68853239
28	6,18661042	6,20406371	6,22151701	6,2389703	6,25642359	0,68882328
29	6,18690131	6,2043546	6,2218079	6,23926119	6,25671448	0,68911417
30	6,1871922	6,20464549	6,22209878	6,23955208	6,25700537	0,68940505
31	6,18748309	6,20493638	6,22238967	6,23984296	6,25729626	0,68969594
32	6,18777397	6,20522727	6,22268056	6,24013385	6,25758714	0,68998683
33	6,18806486	6,20551816	6,22297145	6,24042474	6,25787803	0,69027772
34	6,18835575	6,20580904	6,22326234	6,24071563	6,25816892	0,69056861
35	6,18864664	6,20609993	6,22355322	6,24100652	6,25845981	0,6908595
36	6,18893753	6,20639082	6,22384411	6,24129741	6,2587507	0,69115038
37	6,18922842	6,20668171	6,224135	6,24158829	6,25904159	0,69144127
38	6,1895193	6,2069726	6,22442589	6,24187918	6,25933247	0,69173216
39	6,18981019	6,20726348	6,22471678	6,24217007	6,25962336	0,69202305
40	6,19010108	6,20755437	6,22500767	6,24246096	6,25991425	0,69231394
41	6,19039197	6,20784526	6,22529855	6,24275185	6,26020514	0,69260482
42	6,19068286	6,20813615	6,22558944	6,24304273	6,26049603	0,69289571
43	6,19097375	6,20842704	6,22588033	6,24333362	6,26078692	0,6931866
44	6,19126463	6,20871793	6,22617122	6,24362451	6,2610778	0,69347749
45	6,19155552	6,20900881	6,22646211	6,2439154	6,26136869	0,69376838
46	6,19184641	6,2092997	6,22675299	6,24420629	6,26165958	0,69405927
47	6,1921373	6,20959059	6,22704388	6,24449718	6,26195047	0,69435015
48	6,19242819	6,20988148	6,22733477	6,24478806	6,26224136	0,69464104
49	6,19271907	6,21017237	6,22762566	6,24507895	6,26253224	0,69493193
50	6,19300996	6,21046326	6,22791655	6,24536984	6,26282313	0,69522282
51	6,19330085	6,21075414	6,22820744	6,24566073	6,26311402	0,69551371
52	6,19359174	6,21104503	6,22849832	6,24595162	6,26340491	0,6958046
53	6,19388263	6,21133592	6,22878921	6,2462425	6,2636958	0,69609548
54	6,19417352	6,21162681	6,2290801	6,24653339	6,26398669	0,69638637
55	6,1944644	6,2119177	6,22937099	6,24682428	6,26427757	0,69667726
56	6,19475529	6,21220858	6,22966188	6,24711517	6,26456846	0,69696815
57	6,19504618	6,21249947	6,22995276	6,24740606	6,26485935	0,69725904
58	6,19533707	6,21279036	6,23024365	6,24769695	6,26515024	0,69754992
59	6,19562796	6,21308125	6,23053454	6,24798783	6,26544113	0,69784081
60	6,19591884	6,21337214	6,23082543	6,24827872	6,26573201	0,6981317