

Square Degrees			Rise in	Rise in	
Degrees	Tangent of angle	Rise in 12	Fraction of inch	32nds of inch	Run
1	0.017455065	0.209460779	3/16	7/32	12
2	0.034920769	0.419049234	7/16	13/32	12
3	0.052407779	0.628893351	5/8	20/32	12
4	0.069926812	0.839121743	13/16	27/32	12
5	0.087488664	1.049863962	1 1/16	1 2/32	12
6	0.105104235	1.261250823	1 1/4	1 8/32	12
7	0.122784561	1.473414731	1 1/2	1 15/32	12
8	0.140540835	1.686490016	1 11/16	1 22/32	12
9	0.15838444	1.900613284	1 7/8	1 29/32	12
10	0.176326981	2.115923769	2 1/8	2 4/32	12
11	0.194380309	2.33256371	2 5/16	2 11/32	12
12	0.212556562	2.55067874	2 9/16	2 18/32	12
13	0.230868191	2.770418294	2 3/4	2 25/32	12
14	0.249328003	2.991936034	3	3	12
15	0.267949192	3.215390309	3 3/16	3 7/32	12
16	0.286745386	3.440944629	3 7/16	3 14/32	12
17	0.305730681	3.668768178	3 11/16	3 21/32	12
18	0.324919696	3.899036355	3 7/8	3 29/32	12
19	0.344327613	4.131931359	4 1/8	4 4/32	12
20	0.363970234	4.367642811	4 3/8	4 12/32	12
21	0.383864035	4.60636842	4 5/8	4 19/32	12
22	0.404026226	4.84831471	4 7/8	4 27/32	12
23	0.424474816	5.093697795	5 1/16	5 3/32	12
24	0.445228685	5.342744224	5 5/16	5 11/32	12
25	0.466307658	5.595691898	5 5/8	5 19/32	12
26	0.487732589	5.852791063	5 7/8	5 27/32	12
27	0.509525449	6.114305394	6 1/8	6 4/32	12
28	0.531709432	6.38051318	6 3/8	6 12/32	12
29	0.554309051	6.651708617	6 5/8	6 21/32	12
30	0.577350269	6.92820323	6 15/16	6 30/32	12
31	0.600860619	7.210327428	7 3/16	7 7/32	12
32	0.624869352	7.498432223	7 1/2	7 16/32	12
33	0.649407593	7.792891118	7 13/16	7 25/32	12
34	0.674508517	8.094102202	8 1/8	8 3/32	12
35	0.700207538	8.402490459	8 3/8	8 13/32	12
36	0.726542528	8.718510336	8 11/16	8 23/32	12
37	0.75355405	9.042648601	9 1/16	9 1/32	12
38	0.781285627	9.375427518	9 3/8	9 12/32	12
39	0.809784033	9.717408398	9 11/16	9 23/32	12
40	0.839099631	10.06919557	10 1/16	10 2/32	12
41	0.869286738	10.43144085	10 7/16	10 14/32	12
42	0.900404044	10.80484853	10 13/16	10 26/32	12
43	0.932515086	11.19018103	11 3/16	11 6/32	12
44	0.965688775	11.5882653	11 9/16	11 19/32	12
45	1	12	12	12	12
46	1.035530314	12.42636377	12 7/16	12 14/32	12
47	1.07236871	12.86842452	12 7/8	12 28/32	12
48	1.110612515	13.32735018	13 5/16	13 10/32	12

49	1.150368407	13.80442089	13 13/16	13 26/32	12
50	1.191753593	14.30104311	14 5/16	14 10/32	12
51	1.234897157	14.81876588	14 13/16	14 26/32	12
52	1.279941632	15.35929959	15 3/8	15 11/32	12
53	1.327044822	15.92453786	15 15/16	15 30/32	12
54	1.37638192	16.51658305	16 1/2	16 17/32	12
55	1.428148007	17.13777608	17 1/8	17 4/32	12
56	1.482560969	17.79073162	17 13/16	17 25/32	12
57	1.539864964	18.47837957	18 1/2	18 15/32	12
58	1.600334529	19.20401435	19 3/16	19 7/32	12
59	1.664279482	19.97135379	20	19 31/32	12
60	1.732050808	20.78460969	20 13/16	20 25/32	12
61	1.804047755	21.64857306	21 5/8	21 21/32	12
62	1.880726465	22.56871758	22 9/16	22 18/32	12
63	1.962610506	23.55132607	23 9/16	23 18/32	12
64	2.050303842	24.6036461	24 5/8	24 19/32	12
65	2.144506921	25.73408305	25 3/4	25 23/32	12
66	2.246036774	26.95244129	26 15/16	26 30/32	12
67	2.355852366	28.27022839	28 1/4	28 9/32	12
68	2.475086853	29.70104224	29 11/16	29 22/32	12
69	2.605089065	31.26106878	31 1/4	31 8/32	12
70	2.747477419	32.96972903	33	32 31/32	12
71	2.904210878	34.85053053	34 7/8	34 27/32	12
72	3.077683537	36.93220245	36 15/16	36 30/32	12
73	3.270852618	39.25023142	39 1/4	39 8/32	12
74	3.487414444	41.84897333	41 7/8	41 27/32	12
75	3.732050808	44.78460969	44 13/16	44 25/32	12
76	4.010780934	48.1293712	48 1/8	48 4/32	12
77	4.331475874	51.97771049	52	51 31/32	12
78	4.704630109	56.45556131	56 7/16	56 15/32	12
79	5.144554016	61.73464819	61 3/4	61 24/32	12
80	5.67128182	68.05538184	68 1/16	68 2/32	12
81	6.313751515	75.76501818	75 3/4	75 24/32	12
82	7.115369722	85.38443667	85 3/8	85 12/32	12
83	8.144346428	97.73215714	97 3/4	97 23/32	12
84	9.514364454	114.1723735	114 3/16	114 6/32	12
85	11.4300523	137.1606276	137 3/16	137 5/32	12
86	14.30066626	171.6079951	171 5/8	171 19/32	12
87	19.08113669	228.9736403	229	228 31/32	12
88	28.63625328	343.6350394	343 5/8	343 20/32	12
89	57.28996163	687.4795396	687 1/2	687 15/32	12