

Angle	Function	Value	Angle	Function	Value	Angle	Function	Value	Angle	Function	Value
24	sin	0 4067	40	sin	0 6428	57	sin	0 8387	73	sin	0 9563
	cos	0 9135		cos	0 7660		cos	0 5446		cos	0 2924
	tan	0 4452		tan	0 6391		tan	1 5399		tan	3 2709
25	sin	0 4226	41	sin	0 6561	58	sin	0 8480	74	sin	0 9613
	cos	0 9063		cos	0 7547		cos	0 5299		cos	0 2756
	tan	0 4663		tan	0 8693		tan	1 6003		tan	3 4874
26	sin	0 4384	42	sin	0 6691	59	sin	0 8572	75	sin	0 9659
	cos	0 8988		cos	0 7431		cos	0 5150		cos	0 2588
	tan	0 4877		tan	0 9004		tan	1 6643		tan	3 7321
27	sin	0 4540	43	sin	0 6820	60	sin	0 8660	76	sin	0 9703
	cos	0 8910		cos	0 7314		cos	0 5000		cos	0 2419
	tan	0 5095		tan	0 9325		tan	1 7321		tan	4 0108
28	sin	0 4695	44	sin	0 6947	61	sin	0 8748	77	sin	0 9744
	cos	0 8829		cos	0 7193		cos	0 4848		cos	0 2250
	tan	0 5317		tan	0 9657		tan	1 8040		tan	4 3315
29	sin	0 4848	45	sin	0 7071	62	sin	0 8829	78	sin	0 9781
	cos	0 8746		cos	0 7071		cos	0 4695		cos	0 2079
	tan	0 5543		tan	1 0000		tan	1 8807		tan	4 7046
30	sin	0 5000	46	sin	0 7193	63	sin	0 8910	79	sin	0 9816
	cos	0 8660		cos	0 6947		cos	0 4540		cos	0 1908
	tan	0 5774		tan	1 0355		tan	1 9626		tan	5 1446
31	sin	0 5150	47	sin	0 7314	64	sin	0 8988	80	sin	0 9848
	cos	0 8572		cos	0 6820		cos	0 4384		cos	0 1736
	tan	0 6009		tan	1 0724		tan	2 0503		tan	5 6713
32	sin	0 5299	48	sin	0 7431	65	sin	0 9063	81	sin	0 9877
	cos	0 8480		cos	0 6691		cos	0 4226		cos	0 1564
	tan	0 6249		tan	1 1106		tan	2 1445		tan	6 3138
33	sin	0 5446	49	sin	0 7547	66	sin	0 9135	82	sin	0 9903
	cos	0 8387		cos	0 6561		cos	0 4067		cos	0 1392
	tan	0 6494		tan	1 1504		tan	2 2460		tan	7 1154
34	sin	0 5592	50	sin	0 7660	67	sin	0 9205	83	sin	0 9925
	cos	0 8290		cos	0 6428		cos	0 3907		cos	0 1219
	tan	0 6745		tan	1 1918		tan	2 3559		tan	8 1443
35	sin	0 5736	51	sin	0 7771	68	sin	0 9272	84	sin	0 9945
	cos	0 8192		cos	0 6293		cos	0 3746		cos	0 1045
	tan	0 7002		tan	1 2349		tan	2 4751		tan	9 5144
36	sin	0 5878	52	sin	0 7880	69	sin	0 9336	85	sin	0 9962
	cos	0 8090		cos	0 6157		cos	0 3584		cos	0 0872
	tan	0 7265		tan	1 2799		tan	2 6051		tan	11 43
37	sin	0 6018	53	sin	0 7986	70	sin	0 9397	86	sin	0 9976
	cos	0 7986		cos	0 6018		cos	0 3420		cos	0 0698
	tan	0 7536		tan	1 3270		tan	2 7475		tan	14 30
38	sin	0 6157	54	sin	0 8090	71	sin	0 9455	87	sin	0 9986
	cos	0 7880		cos	0 5878		cos	0 3256		cos	0 0523
	tan	0 7813		tan	1 3764		tan	2 9042		tan	19 08
39	sin	0 6293	55	sin	0 8192	72	sin	0 9511	88	sin	0 9994
	cos	0 7771		cos	0 5736		cos	0 3090		cos	0 0349
	tan	0 8098		tan	1 4281		tan	3 0777		tan	28 64
			56	sin	0 8290				89	sin	0 9996
				cos	0 5592					cos	0 0175
				tan	1 4826					tan	57 29

NOTE Values of the sine cosine and tangent of each degree from 0 to 90 also permit determination of values for angles from 90 to 360 degrees if appropriate signs for the functions are used depending on the quadrant in which the angle measure belongs. For example the sine of 4 degrees is also the sign of 176 degrees and with a negative sign the sine of 184 and 356 degrees. Note that if an angle is given in radians multiply the number of radians by 57 296 to obtain the number of degrees.

SURFACE AREA AND VOLUME FORMULAS

R = radius of circle

d = diameter of circle

$\pi = 3.1416$

Circumference of circle = $\pi d = 2\pi R$

Area of circle = $\pi d^2/4 = \pi R^2$

Surface area of sphere = $\pi d^2 = 4\pi R^2$

Volume of sphere = $\pi d^3/6 = 4/3\pi R^3$

Area of a triangle = $ab/2$

b = base

a = altitude