



球體之表面積與體積

SURFACE AREAS AND VOLUMES OF SPHERES								
Diameter	Surface Area	Volume	Diameter	Surface Area	Volume	Diameter	Surface Area	Volume
1/8	0.04908	0.00102	2-1/2	19.635	8.1812	6-3/4	143.14	161.03
1/4	0.19636	0.00818	2-3/4	23.758	10.889	7	153.94	179.60
3/8	0.44180	0.027613	3	28.274	14.137	7-1/4	165.13	199.53
1/2	0.78540	0.06545	3-1/4	33.183	17.974	7-1/2	176.71	220.88
5/8	1.2272	0.12783	3-1/2	38.484	22.449	7-3/4	188.69	243.72
3/4	1.7672	0.22090	3-3/4	44.179	27.612	8	201.06	268.08
7/8	2.4053	0.35077	4	50.266	35.511	8-1/4	213.82	294.00
1	3.1416	0.52360	4-1/4	56.745	40.195	8-1/2	226.98	321.55
1-1/8	3.9760	0.74550	4-1/2	63.617	47.712	8-3/4	240.53	350.77
1-1/4	4.9088	1.0227	4-3/4	70.882	56.115	9	254.47	381.70
1-3/8	5.9396	1.3611	5	78.540	65.450	9-1/4	268.80	414.40
1-1/2	7.0684	1.7671	5-1/4	86.590	75.766	9-1/2	283.53	448.92
1-5/8	8.2956	2.2467	5-1/2	95.033	87.113	9-3/4	298.65	485.30
1-3/4	9.6212	2.8062	5-3/4	103.87	99.542	10	314.16	523.60
1-7/8	11.045	3.4516	6	113.10	113.10			
2	12.566	4.1887	6-1/4	122.72	127.83			
2-1/4	15.904	5.9640	6-1/2	132.73	143.79			

SPHERE FORMULAE

This table can be used for feet, inches or any metric unit. For example, the volume of a 2" diameter sphere is 4.1887 cu.in. and for a 2 ft. diameter, 4.1887 cu.ft.

The figures apply to either the exterior or to the interior of a hollow sphere provided the diameter is measured at the proper place. For example : the capacity of a spherical tank measuring 10 ft. on the inside is 523.60 cu.ft. A float ball having an outside diameter of 6 in. has a volume of 113.10 cu.in.

The area or the volume of a sphere of a diameter not given in the table may be figured from the following simple formulae :

$$S = 4A$$

$$V = 0.524D^3$$

In which :

D = Diameter of the Sphere

A = Area of Circle of Diameter D

S = Surface Area of Sphere

V = Volume of Sphere