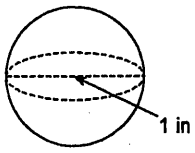
12-6 Volume of Spheres

$V = \frac{4}{3}\pi r^3$

Find the volume of each figure. Round your answers to the nearest hundredth, if necessary. Leave your answers in terms of π for answers that contain π.

1)

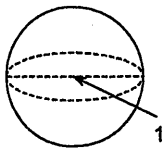


$r = 0.5$

$V = \frac{4}{3}(0.5)^3\pi$

$V = \frac{\pi}{6}\ in^3$

2)

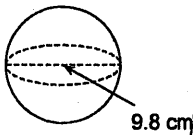


$r = 9.7$

$V = \frac{4}{3}(9.7)^3\pi$

$V = 1216.89\pi\ km^3$

3)

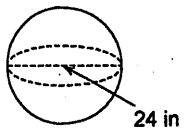


$r = 4.9$

$V = \frac{4}{3}\pi(4.9)^3$

$V = 156.865\pi\ cm^3$

4)

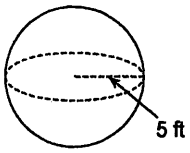


$r = 12$

$V = \frac{4}{3}(12)^3\pi$

$V = 2304\pi\ in^3$

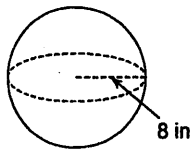
5)



$V = \frac{4}{3}(5)^3\pi$

$\frac{500}{3}\pi\ ft^3$

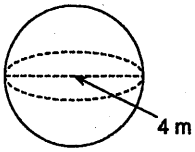
6)



$V = \frac{4}{3}(8)^3\pi$

$\frac{2048}{3}\pi\ in^3$

7)

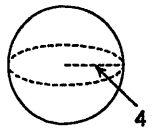


$r = 2$

$V = \frac{4}{3}(2)^3\pi$

$\frac{32}{3}\pi\ m^3$

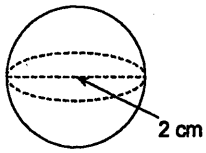
8)



$V = \frac{4}{3}(4)^3\pi$

$V = \frac{256}{3}\pi\ ft^3$

9)

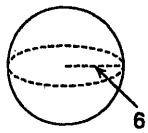


$r = 1$

$V = \frac{4}{3}(1)^3\pi$

$V = \frac{4}{3}\pi\ cm^3$

10)



$V = \frac{4}{3}(3)^3\pi$

$V = 36\pi\ yd^3$