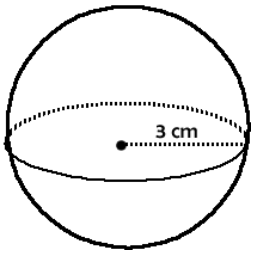
Intro to Geometry (G.GMD.3)
Unit Three: Three Dimensional Solids (IC10)

Name: _____Key_____
Date: _____ Period: _____

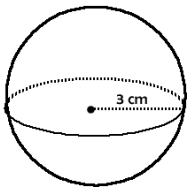
IC10 - SPHERE VOLUME

VOLUME$_{SPHERE}$ = $\frac{4}{3}\pi r^3$ or $\frac{4\pi r^3}{3}$



Determine the volume of each sphere.

a)

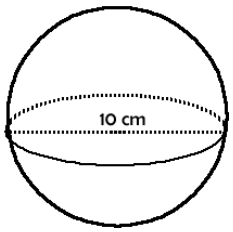


$V = \frac{4}{3}\pi r^3$

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

$= \frac{108\pi}{3} = 36\pi\ cm^3$

b)



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

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

$= \frac{500\pi}{3}\ cm^3$

How would you find the volume of a hemisphere?

divide the volume of a sphere in half

$V = \frac{2}{3}\pi r$