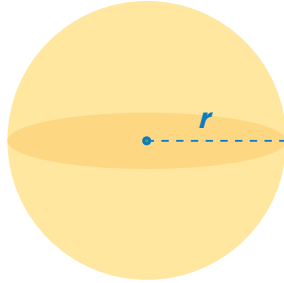


# Volume of Spheres

A sphere is a round, three-dimensional figure. You can find the volume of sphere using this formula, where  $r$  is the **radius**:

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



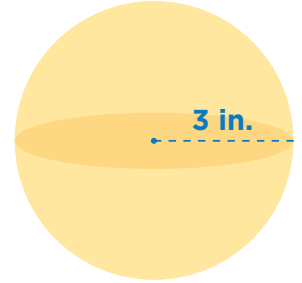
**Let's try it!** Find the volume of the sphere below. Use 3.14 as an approximation for  $\pi$ .

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

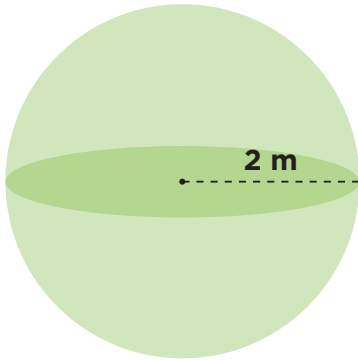
$$V \approx \frac{4}{3} \cdot 3.14 \cdot 3^3$$

$$V \approx \frac{4}{3} \cdot 3.14 \cdot 27$$

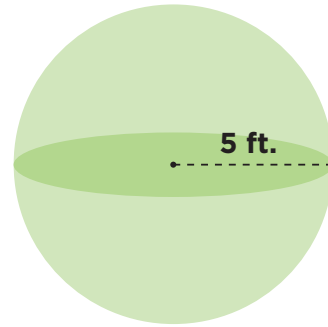
$$V \approx 113.04 \text{ in.}^3$$



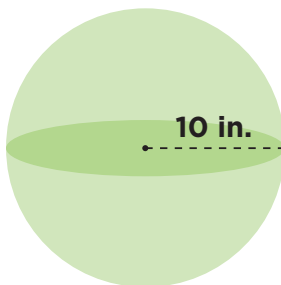
**Try it yourself!** Calculate the volume of each sphere. Use 3.14 for  $\pi$ . Round your answer to the nearest hundredth if needed.



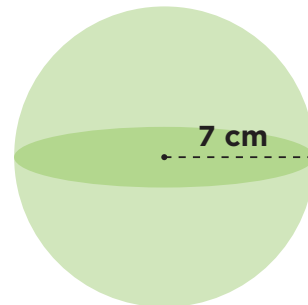
$$V \approx \underline{33.49 \text{ m}^3}$$



$$V \approx \underline{523.33 \text{ ft.}^3}$$



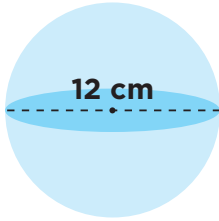
$$V \approx \underline{4,186.67 \text{ in}^3}$$



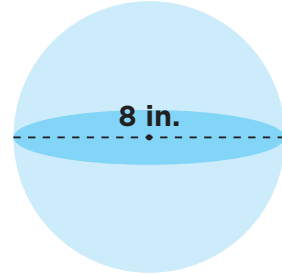
$$V \approx \underline{1,436.03 \text{ cm}^3}$$

# Volume of Spheres

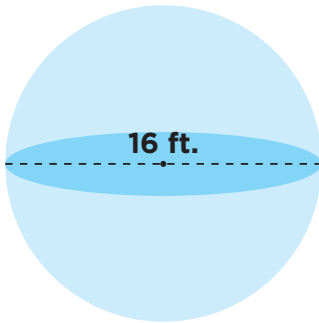
**Keep going!** Calculate the volume of each sphere. Use 3.14 for  $\pi$ . Remember that the diameter of a circle is twice its radius. Round your answer to the nearest hundredth if needed.



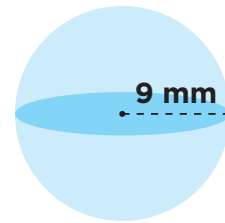
$$V \approx \underline{904.32 \text{ cm}^3}$$



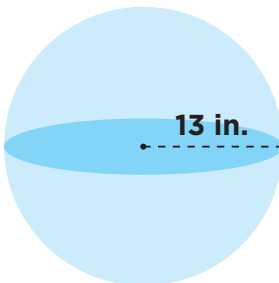
$$V \approx \underline{267.95 \text{ in.}^3}$$



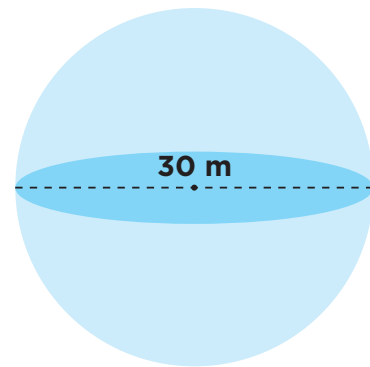
$$V \approx \underline{2,143.57 \text{ ft.}^3}$$



$$V \approx \underline{3,052.08 \text{ mm}^3}$$



$$V \approx \underline{9,198.11 \text{ in.}^3}$$



$$V \approx \underline{14,130 \text{ m}^3}$$