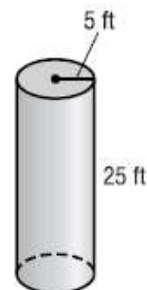


# VOLUME OF A CYLINDER

Find the volume of the cylinder. Use 3.14 for  $\pi$ . Round to the nearest tenth if necessary.

$$\begin{aligned}V &= \pi r^2 h && \text{Volume of a cylinder} \\V &= 3.14 \cdot 5^2 \cdot 25 && \pi \approx 3.14, r = 5, h = 25 \\V &\approx 1,962.5 && \text{Simplify.}\end{aligned}$$

The volume is about 1,962.5 cubic feet.

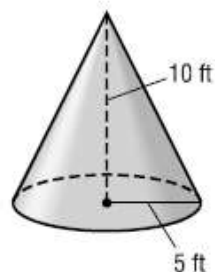


# VOLUME OF A CONE

Find the volume of the cone. Use 3.14 for the  $\pi$ .

$$\begin{aligned}V &= \frac{1}{3} \pi r^2 h && \text{Volume of a cone} \\V &= \frac{1}{3} \cdot 3.14 \cdot 5^2 \cdot 10 && \pi \approx 3.14, r = 5, h = 10 \\V &\approx 261.7 && \text{Simplify.}\end{aligned}$$

The volume is about 261.7 cubic feet.



# VOLUME OF A SPHERE

Find the volume of the sphere. Round to the nearest tenth.

$$\begin{aligned}V &= \frac{4}{3} \pi r^3 && \text{Volume of a sphere} \\V &= \frac{4}{3} \pi (5)^3 && \text{Replace } r \text{ with } 5. \\V &\approx 523.6 \text{ in}^3 && \text{Simplify.}\end{aligned}$$



The volume is about 523.6 in<sup>3</sup>.