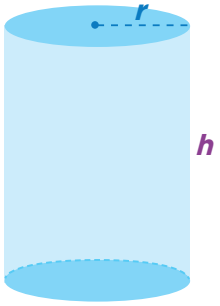
Name ANSWER KEY Date Page 1

Volume of Cylinders

A cylinder is a three-dimensional figure with two opposite circular bases that are identical. You can find the volume of a cylinder using this formula, where r is the **radius** and h is the **height**:

$$V = \pi r^2 h$$



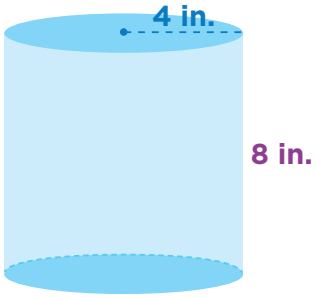
Let's try it! Find the volume of the cylinder below. Use 3.14 as an approximation for π.

$V = \pi r^2 h$

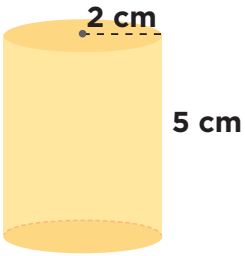
$V \approx 3.14 \cdot 4^2 \cdot 8$

$V \approx 3.14 \cdot 16 \cdot 8$

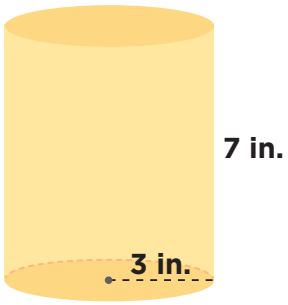
$V \approx 401.92 \text{ in.}^3$



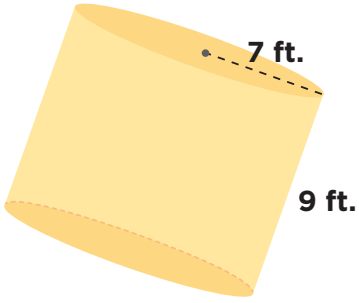
Try it yourself! Calculate the volume of each cylinder. Use 3.14 for π.



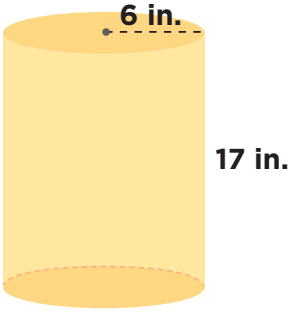
$V \approx$ 62.8 cm^3



$V \approx$ 197.82 in.^3



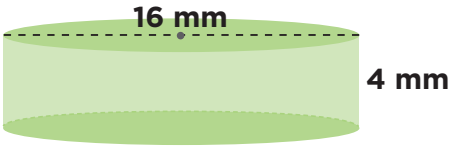
$V \approx$ 1,384.74 ft.^3



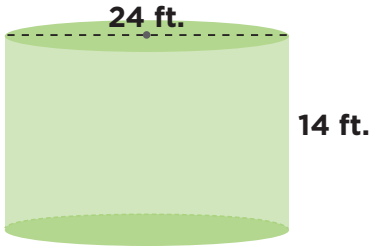
$V \approx$ 1,921.68 in.^3

Volume of Cylinders

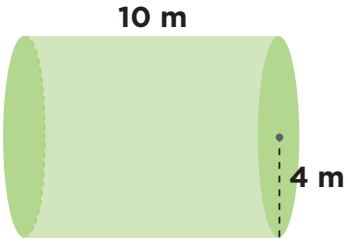
Keep going! Calculate the volume of each cylinder. Use 3.14 for π. Remember that the diameter of a circle is twice its radius.



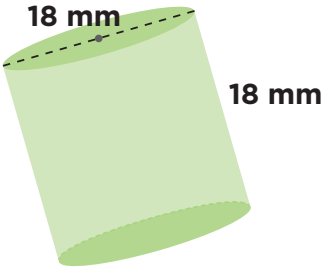
$V \approx$ 803.84 mm^3



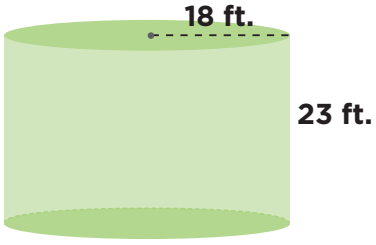
$V \approx$ 6,330.24 $ft.^3$



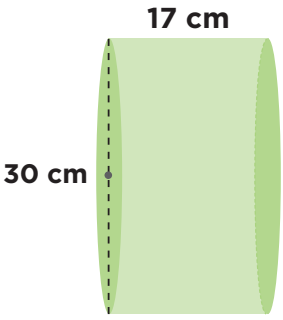
$V \approx$ 502.4 m^3



$V \approx$ 4,578.12 mm^3



$V \approx$ 23,399.28 $ft.^3$



$V \approx$ 12,010.5 cm^3