# REVIEW: Volumes of Cylinders

Name _____

## Key Concept and Vocabulary

Base

Volume

$V = Bh$

$\quad = \pi r^2 h$
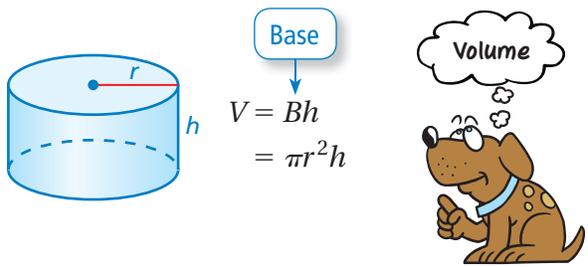
## Visual Model

If each coin has a volume of $\pi r^2$, then $h$ coins have a volume of

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

## Skill Example

**1.**

3 ft

2 ft

$V = \pi \cdot 3^2 \cdot 2$

$\quad = 18\pi \, \text{ft}^3$
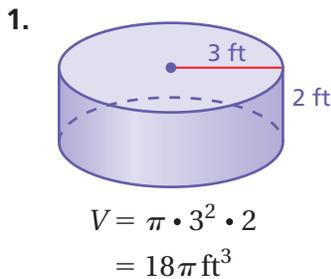
## Application Example

**2.** How much soup is in the can?

$\quad V = \pi \cdot 1.5^2 \cdot 5$

$\quad\quad = 11.25\pi \, \text{in.}^3$

├─3 in.─┤

Johnson's

5 in.

TOMATO
SOUP

∴ There are $11.25\pi$ cubic inches of soup.

## PRACTICE MAKES *PURR*-FECT™

*Check your answers at BigIdeasMath.com.*

**Find the volume of the circular cylinder.**

**3.** Circular Cylinder

5 mm

2 mm

$V =$ _____

**4.** Circular Cylinder

6 ft

7 ft

$V =$ _____

**5.** Circular Cylinder

12 cm

6 cm

$V =$ _____
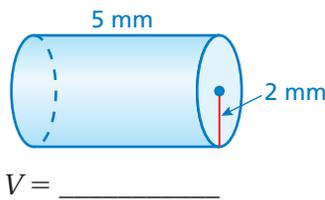
**6.** Circular Cylinder

10 ft

6 ft

$V =$ _____
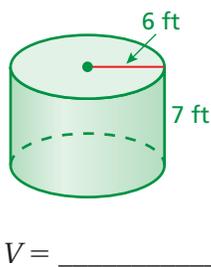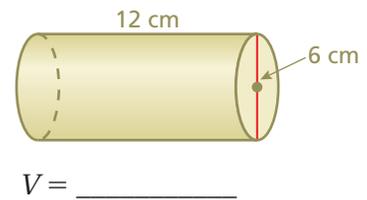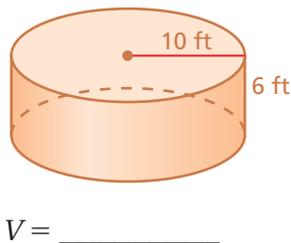
**7.** Circular Cylinder

9 in.

4 in.

$V =$ _____
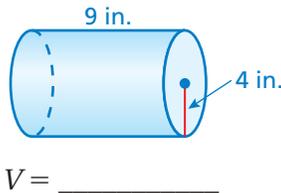
**8.** Circular Cylinder

14 m

2 m

$V =$ _____
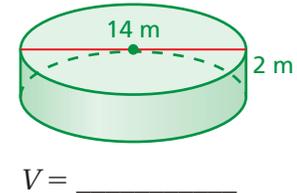
**9. OIL TANKER TRUCK** The truck's tank is a stainless steel cylinder. How much oil does the tank hold? _____

**10. OIL TANKER TRUCK** There are about 7.5 gallons in 1 cubic foot. How many gallons of oil can the tank hold? _____

Length = 50 ft
Radius = 4 ft

**Topic 13.2**