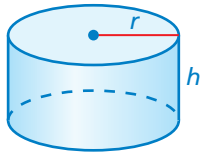


**Key Concept and Vocabulary**



Area of base

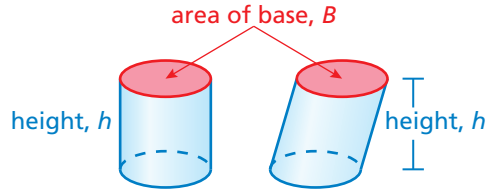
$$V = Bh$$

$$= \pi r^2 h$$

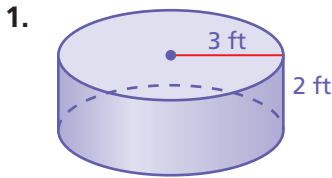
Volume



**Visual Model**



**Skill Example**



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

$$= 18\pi \text{ ft}^3$$

**Application Example**

2. How much soup is in the can?

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

$$= 11.25\pi$$

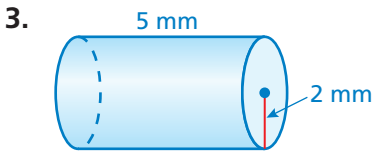
There are  $11.25\pi$  cubic inches of soup.



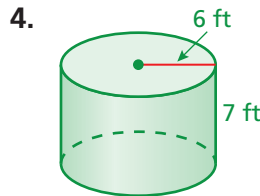
**PRACTICE MAKES PURR-FECT®**

Check your answers at [BigIdeasMath.com](http://BigIdeasMath.com).

Find the volume of the cylinder.



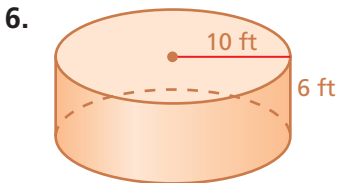
$V =$  \_\_\_\_\_



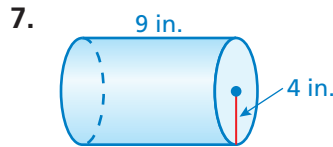
$V =$  \_\_\_\_\_



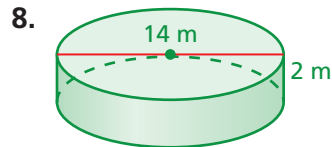
$V =$  \_\_\_\_\_



$V =$  \_\_\_\_\_



$V =$  \_\_\_\_\_



$V =$  \_\_\_\_\_

9. **OIL TANKER TRUCK** The truck's tank is a stainless steel cylinder. How much oil can 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