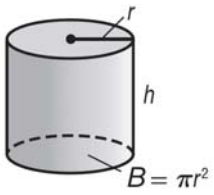
NAME _____ DATE _____ PERIOD _____

# Lesson 1 Reteach

## *Volume of Cylinders*

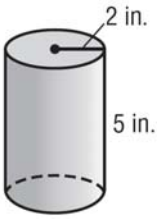
As with prisms, the area of the base of a **cylinder** tells the number of cubic units in one layer. The height tells how many layers there are in the cylinder. The volume $V$ of a cylinder with radius $r$ is the area of the base $B$ times the height $h$.

$V = Bh$, where $B = \pi r^2$, or $V = \pi r^2 h$




**Example**

**Determine the volume of the cylinder. Round to the nearest tenth.**



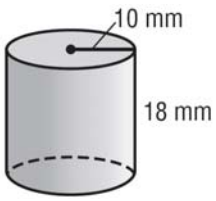

| | |
|---|---|
| $V \approx \pi r^2 h$ | Volume of a cylinder |
| $V \approx \pi(2)^2(5)$ | Replace $r$ with 2 and $h$ with 5. |
| $V \approx 62.8318$ | Use a calculator |

The volume is about 62.8 cubic inches.

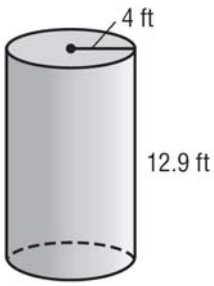
**Exercises**

**Determine the volume of each cylinder. Round to the nearest tent**

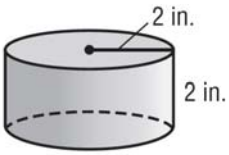
**1.**




**2.**




**3.**




**4.** radius = 9.5 yd
height = 2.2 yd

**5.** diameter = 6 cm
height = 11 cm

**6.** diameter = 3.4 m
height = 1.25 m