

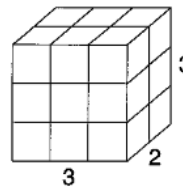
Name _____ Date _____ Class _____

LESSON **Reteach**
10-2 **Volume of Prisms and Cylinders**

The **volume** of a three-dimensional figure is the amount of space it takes up. Volume is measured in cubic units.

Find the volume of the prism.

1. Think of the prism as layers of cubes.
 There are 6 cubes in the bottom layer.
2. There are 3 layers of cubes.
3. Multiply the number of cubes in the bottom layer by the number of layers.
 The volume of the prism is 18 cubic units.



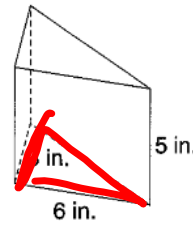
The volume of a prism or a cylinder is the area of its base times its height.

volume = base • height, or $V = B \cdot h$

18 units³

Find the volume of the prism.

4. What is the shape of the base? Triangle
5. The area of the base is $B = \frac{1}{2}bh$
 $B = \frac{1}{2} \cdot \underline{6} \cdot \underline{3} = \underline{9}$ in²
6. The height of the prism is 5 in.
7. $V = B \cdot h = \underline{9} \cdot \underline{5} = \underline{45}$ in³



Find the volume of the cylinder to the nearest whole number.

8. What is the shape of the base? circle
9. The area of the base is $A = \pi r^2$.
 $A = 3.14 \cdot \underline{4}^2 = \underline{50.2}$ cm²
10. The height of the cylinder is 3 cm.
11. $V = B \cdot h = \underline{50.2} \cdot \underline{3} = \underline{150.6}$ cm³

