Name _____ Date _____ Class _____

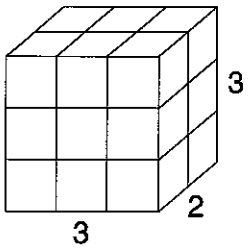
LESSON 10-2

Reteach

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 _____ cubes in the bottom layer.

2. There are _____ layers of cubes.

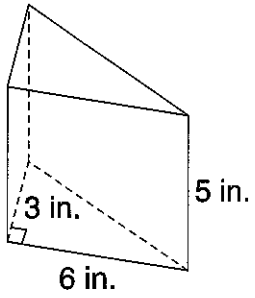
3. Multiply the number of cubes in the bottom layer by the number of layers.

   The volume of the prism is _____ cubic units.

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

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

Find the volume of the prism.



4. What is the shape of the base? _____

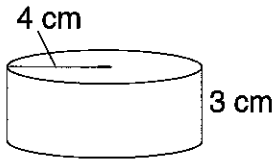
5. The area of the base is $B = \frac{1}{2}bh$

   $B = \frac{1}{2} \cdot$ _____ • _____ = _____ in^2

6. The height of the prism is _____ in.

7. $V = B \cdot h =$ _____ • _____ = _____ in^3

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



8. What is the shape of the base? _____

9. The area of the base is $A = \pi r^2$.

   $A = 3.14 \cdot$ _____^{2} = _____ cm^2

10. The height of the cylinder is _____ cm.

11. $V = B \cdot h =$ _____ • _____ = _____ cm^3

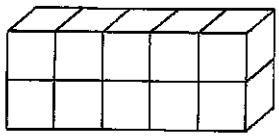
Name _____ Date _____ Class _____

LESSON 10-2

Practice A

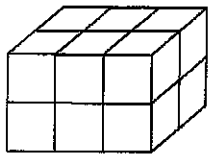
Volume of Prisms and Cylinders

Find how many cubes each prism holds. Then give the prism's volume.

1. 

_____

_____

2. 

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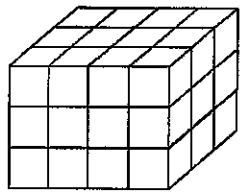
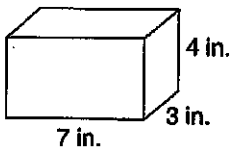
3. 

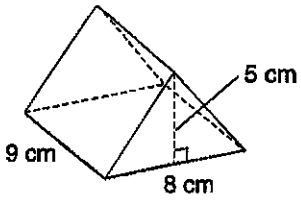
_____

_____

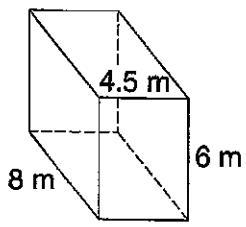
Find the volume of each figure. Choose the letter for the best answer.

4. 

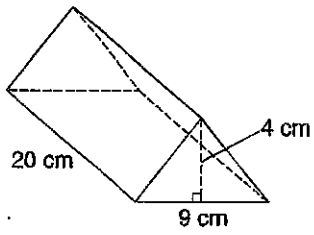
A 14 in^3
B 21 in^3
C 28 in^3
D 84 in^3

5. 

F 40 cm^3
G 72 cm^3
H 180 cm^3
J 360 cm^3

6. 

A 48 m^3
B 162 m^3
C 216 m^3
D Not Here

7. 

F 60 cm^3
G 360 cm^3
H 720 cm^3
J 810 cm^3

8. A juice can is shaped like a cylinder. It is 12 centimeters wide and 16 centimeters tall. Find its volume to the nearest whole number. Use 3.14 for π.

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