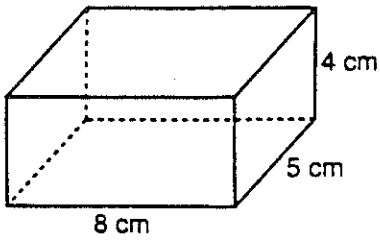
Name _____ Date _____

Study Guide Worksheet 12-6

Volume of Prisms and Cylinders

The volume (V) of a prism is equal to the product of the area of the base (B) times the height (h). $V = Bh$

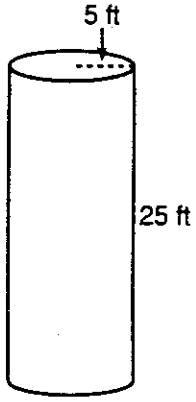
Example 1 Find the volume of the rectangular prism.



$V = Bh$
$V = lwh$ area of the base = lw
$V = 4 \times 5 \times 8$
$V = 160$

The volume of the rectangular prism is 160 cubic centimeters.

The volume (V) of a cylinder is equal to the product of the area of the base (B) times the height. $V = Bh$ Since the area of the base = πr^2, the volume of the cylinder may be expressed as $V = \pi r^2 h$.



Example 2 Find the volume of the cylinder.

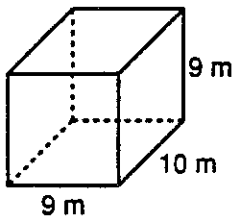
$V = \pi r^2 h$
$V = 3.14(5)^2(25)$
$V = 3.14(25)(25)$
$V =$

The volume of the cylinder is _____ cubic feet.

triangular prism: $V = \frac{1}{2}bh \times$ height of prism

Find the volume of each solid.

1.



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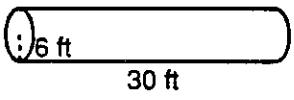

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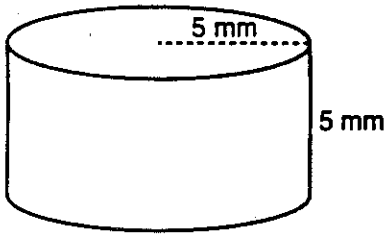

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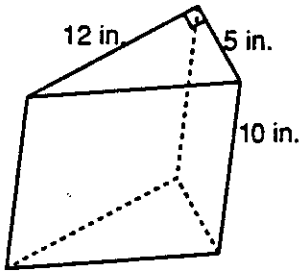

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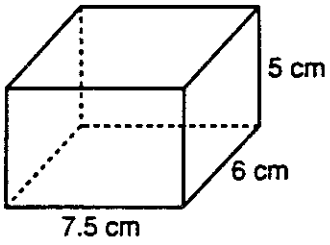

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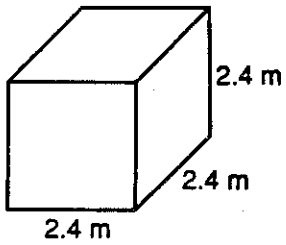


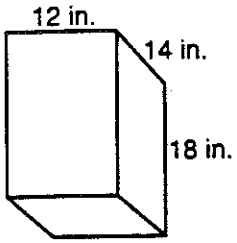
Name _____ Date _____

Practice Worksheet 12-6

Volume of Prisms and Cylinders

Find the volume of each solid. Round your answer to the nearest tenth.

1.



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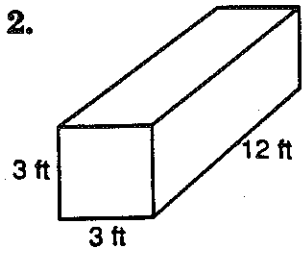

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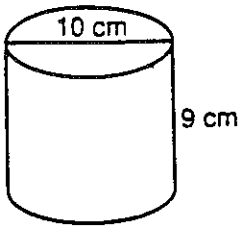

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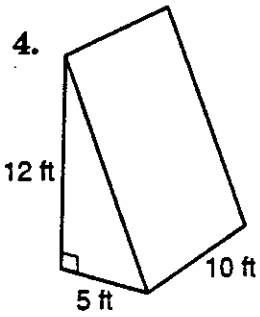

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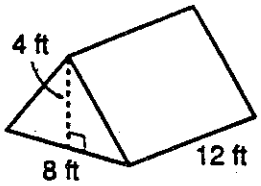

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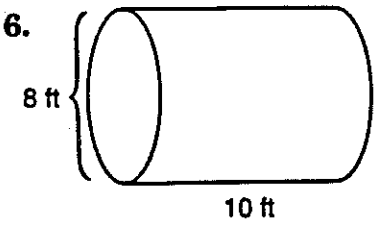

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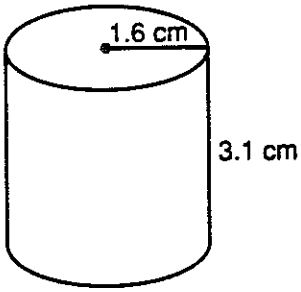

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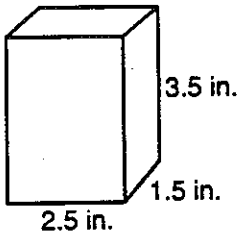

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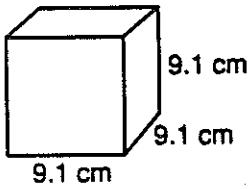

Draw each figure. Then find its volume.

10. a cylinder whose diameter is 6 cm and whose height is 4 cm

11. a cube whose edge is 3.5 inches