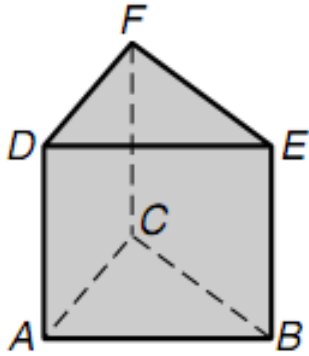


**ASSIGNMENT**

Name each solid. Then name the bases, faces, edges, and vertices.

1.



a. Name: \_\_\_\_\_

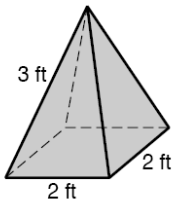
b. Bases: \_\_\_\_\_

c. Faces: \_\_\_\_\_

d. Edges: \_\_\_\_\_

e. Vertices: \_\_\_\_\_

2. Name the polyhedron below. Then state the number of faces, edges, and vertices.

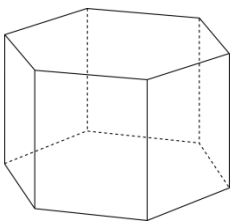


Name: \_\_\_\_\_

# of Faces: \_\_\_\_\_ # of Edges: \_\_\_\_\_ # of Vertices: \_\_\_\_\_

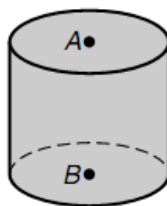
For #3-5, name each solid.

3.



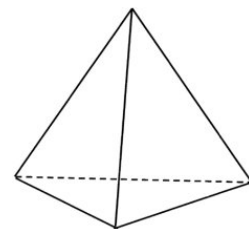
\_\_\_\_\_

4.



\_\_\_\_\_

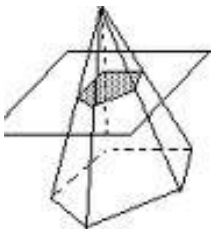
5.



\_\_\_\_\_

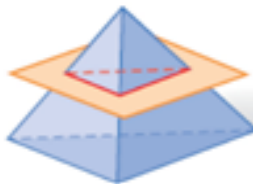
Name the shape of each cross section.

6.



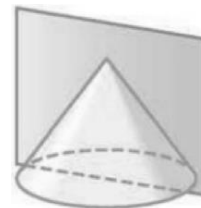
\_\_\_\_\_

7.



\_\_\_\_\_

8.

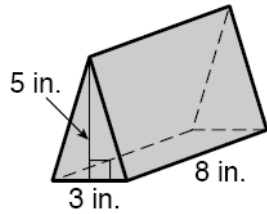


\_\_\_\_\_

For #9-12, draw and label the dimensions of the described cross section.  
Then find the area of the cross section.

9. parallel to the base of the triangular prism.

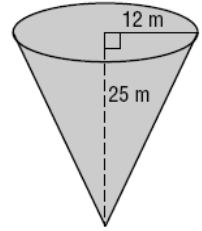
Drawing:



Area:

10. perpendicular to the base of the cone and intersects the vertex

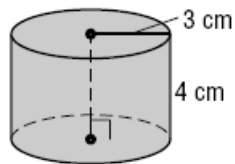
Drawing:



Area:

11. parallel to the base of the cylinder

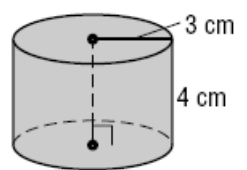
Drawing:



Area:

12. perpendicular to the base of the cylinder through the diameter of the base.

Drawing:



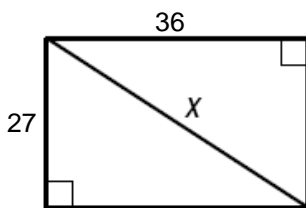
Area:

**Review:**

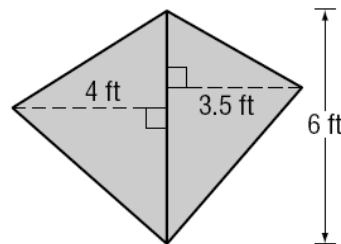
13. The ratio of the measures of the angles of a triangle is 3:4:5. Find the measures of all the angles of the triangle.

14. A circle has a radius of 20 inches. Find the circumference of the circle.

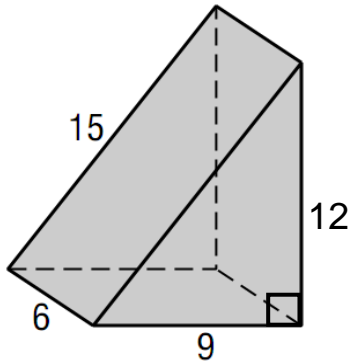
15. Find the value of  $x$  to the nearest tenth.



16. Find the area of the figure below.

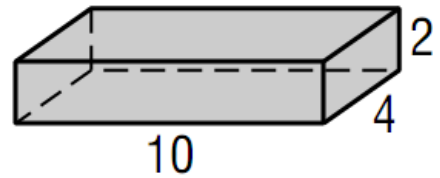


1. Draw the net for the solid below. **Label ALL** dimensions.  
Then find the surface area using the net.



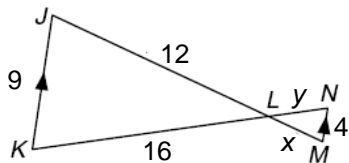
Surface Area = \_\_\_\_\_

2. Rachael needs to wrap a package to ship to her aunt.  
The rectangular package measures 2 inches high, 10 inches long, and 4 inches wide.  
Draw a net of the package. **Label ALL** dimensions.  
Then determine how much wrapping paper Rachel needs to cover the package.



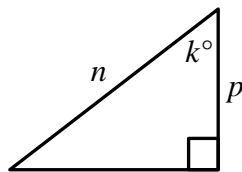
Amount of wrapping paper needed = \_\_\_\_\_

3. Find the values of  $x$  and  $y$ .

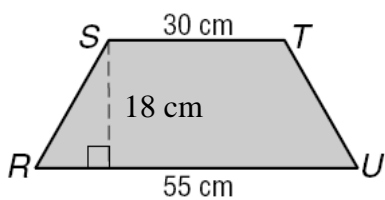


$x =$  \_\_\_\_\_  $y =$  \_\_\_\_\_

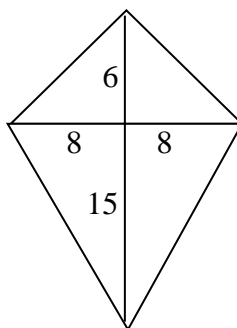
4. Decide if sin, cos or tan would be best.



5. Find the area of the figure.



6. Find the **perimeter** of the kite below:



In circle P,  $m\angle GPH = 41^\circ$ . Find each measure.

7.  $m\widehat{EF}$

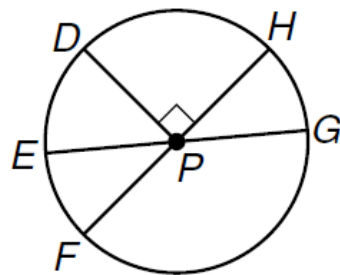
8.  $m\widehat{DE}$

9.  $m\widehat{FG}$

10.  $m\widehat{DG}$

11.  $m\widehat{DFG}$

12.  $m\widehat{DGE}$

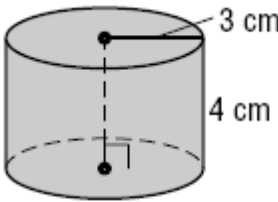
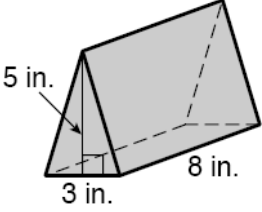
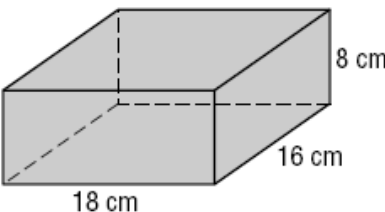
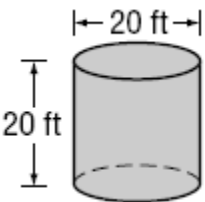
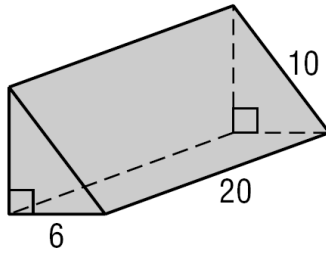
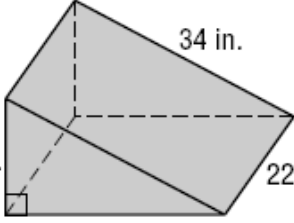


Geometry B  
 11.3 Volumes of Prisms and Cylinders

Name \_\_\_\_\_  
 Hour \_\_\_\_\_ Date \_\_\_\_\_

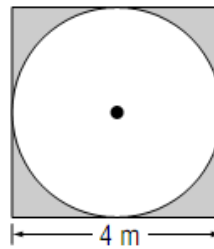
**ASSIGNMENT**

For #1-6, find the volume of each figure. Round values to the nearest hundredth if necessary.

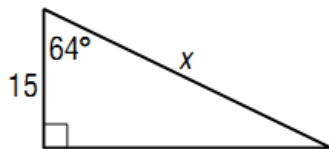
|   |  |
|---|--|
| <p>1.</p>  <p>Volume = _____</p>   | <p>2.</p>  <p>Volume = _____</p>   |
| <p>3.</p>  <p>Volume = _____</p>  | <p>4.</p>  <p>Volume = _____</p>  |
| <p>5.</p>  <p>Volume = _____</p> | <p>6.</p>  <p>Volume = _____</p> |

7. Find the length of  $\overline{MN}$  under a dilation with a scale factor of  $\frac{2}{3}$  if  $M'N' = 28$ .

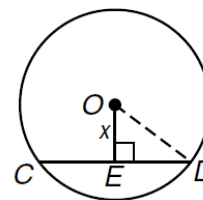
8. Find the area of the shaded region below.



9. Find the value of  $x$  in the triangle below.



10. In circle O,  $OD = 10$  and  $CD = 16$ . Find  $x$ .



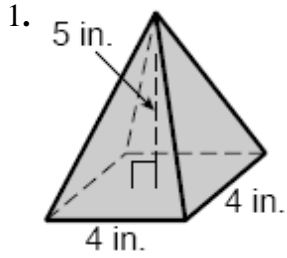
Geometry B

11.4 Volumes of Pyramids and Cones **ASSIGNMENT**

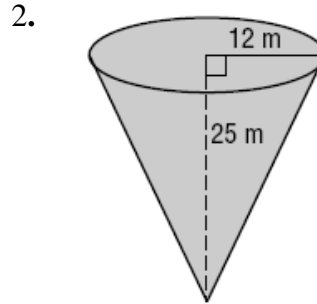
Name \_\_\_\_\_

Hour \_\_\_\_\_ Date \_\_\_\_\_

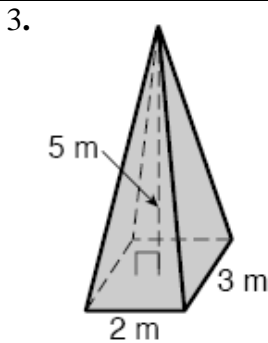
For #1-6, find the volume of each figure. Round values to the nearest hundredth if necessary.



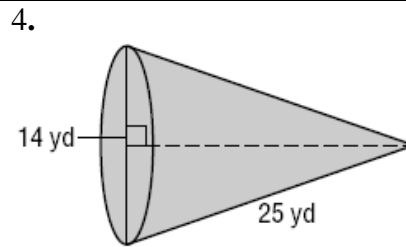
Volume = \_\_\_\_\_



Volume = \_\_\_\_\_



Volume = \_\_\_\_\_



Volume = \_\_\_\_\_

5. A cone has a base with a radius of 9 feet and a volume of  $189\pi$  cubic feet. Find the height of the cone.

Height = \_\_\_\_\_

6. Draw a square pyramid that has a height of 24 centimeters and a base with a side length of 21 centimeters. Then find the volume.

Volume = \_\_\_\_\_

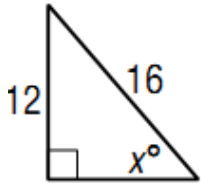
7. The volume of a pyramid is 216 cubic inches. The pyramid's height is 18 inches. Find the area of the base.

Area of base = \_\_\_\_\_

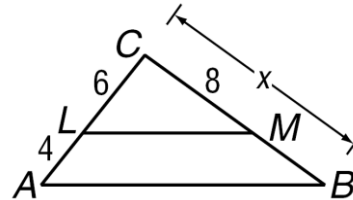
8. The volume of a pyramid is 120 cubic meters, and the area of the base is 50 square meters. Find the height of the pyramid.

Height = \_\_\_\_\_

9. Find the value of  $x$  in the triangle below.



10. Find  $x$  so that  $\overline{LM} \parallel \overline{AB}$ .



11. If  $m\angle 1 = 3x - 2$  and  $m\angle 2 = 2x + 7$ ,

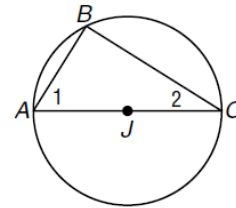
a. find  $x$ .

b. find  $m\angle 1$

d. find  $m\widehat{AB}$

c. find  $m\angle 2$

e. find  $m\widehat{BC}$



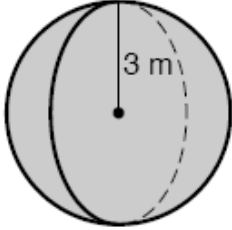

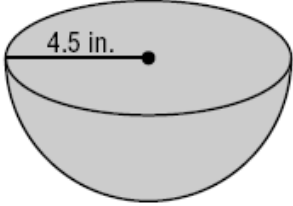



**Geometry B**  
**11.5 Surface Area and Volumes of Spheres**

Name \_\_\_\_\_  
 Hour \_\_\_\_\_ Date \_\_\_\_\_

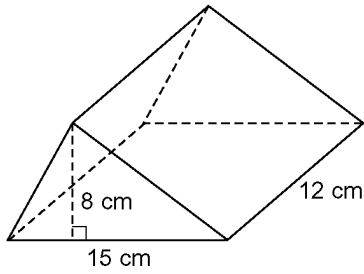
**ASSIGNMENT**

For #1-4, find the indicated values.  
 Round values to the nearest hundredth if necessary.

|   |   |  |  |
|---|---|--|--|
| <p>1.</p>  <p>Surface Area = _____ Volume = _____</p>  | <p>2.</p>  <p>Surface Area = _____ Volume = _____</p> |  |  |
| <p>3.</p>  <p>Volume = _____</p>   | <p>4. A sphere has a volume of <math>288\pi \text{ in}^3</math>. Find the radius of the sphere.</p> <p>Volume = _____</p>               |  |  |
| <p>5. Suppose a sugar cone is 10 centimeters deep and has a diameter of 4 centimeters. A spherical scoop of ice cream with a diameter of 4 centimeters rest on top of the cone.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 50%; padding: 10px;"> <p>a. Find the volume of the cone.</p> <p>Volume = _____</p> </td> <td style="width: 50%; padding: 10px;"> <p>b. Find the volume of the scoop of ice cream.</p> <p>Volume = _____</p> </td> </tr> </tbody> </table> <p>c. If all the ice cream melts into the cone, will the cone overflow? _____</p> <p>d. If the cone does not overflow, what percent of the cone will be filled? _____</p> <div style="text-align: right; margin-top: 20px;">  </div> |   | <p>a. Find the volume of the cone.</p> <p>Volume = _____</p> | <p>b. Find the volume of the scoop of ice cream.</p> <p>Volume = _____</p> |
| <p>a. Find the volume of the cone.</p> <p>Volume = _____</p>  | <p>b. Find the volume of the scoop of ice cream.</p> <p>Volume = _____</p>  |  |  |

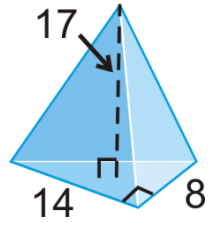
**Review:**

6. Find the volume of the figure below.



Volume = \_\_\_\_\_

7. Find the volume of the figure below.

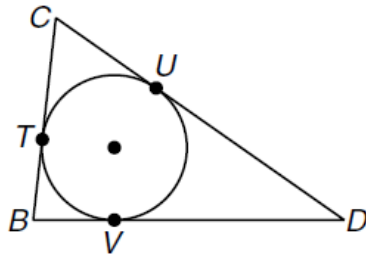


Volume = \_\_\_\_\_

8. A car has a length of 8 feet and a width of 5.2 feet. If the width of a model car is 10 inches, what is the length of the model?

9. A ladder leaning against a building makes an angle of  $81^\circ$  with the ground. If the ladder is 24 feet long, how far up the building will the ladder reach? Round to the nearest tenth.

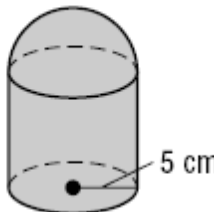
10. Find the perimeter of  $\triangle CBD$  if  $CU = 15$ ,  $CD = 37$  and  $TB = 9$ .



**ASSIGNMENT**

Find the volume of each figure. Round values to 2 decimal places if necessary.

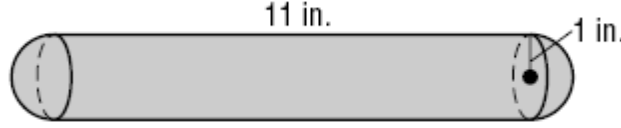
1.



9 cm  
5 cm

Volume = \_\_\_\_\_

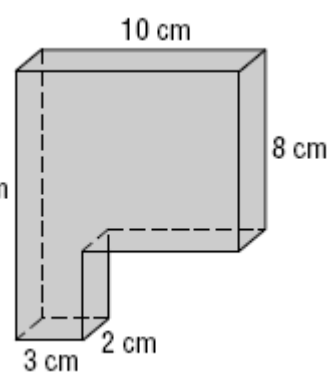
2.



11 in.  
1 in.

Volume = \_\_\_\_\_

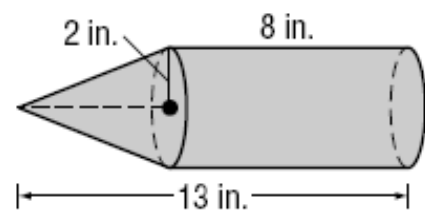
3.



10 cm  
12 cm  
8 cm  
3 cm  
2 cm

Volume = \_\_\_\_\_

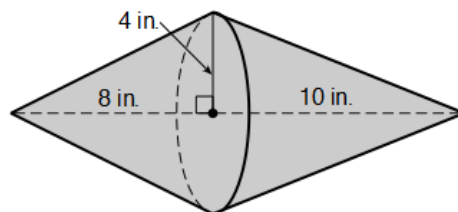
4.



2 in.  
8 in.  
13 in.

Volume = \_\_\_\_\_

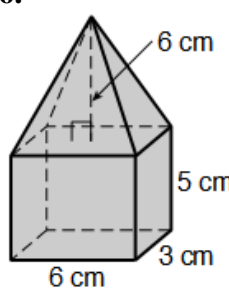
5.



4 in.  
8 in.  
10 in.

Volume = \_\_\_\_\_

6.



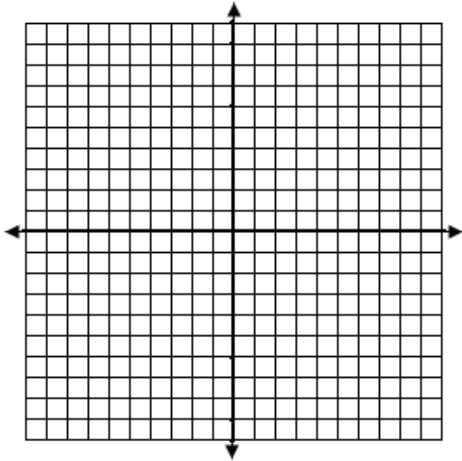
6 cm  
5 cm  
6 cm  
3 cm

Volume = \_\_\_\_\_

For 7 and 8, find the center and radius of each circle. Then graph the circle.

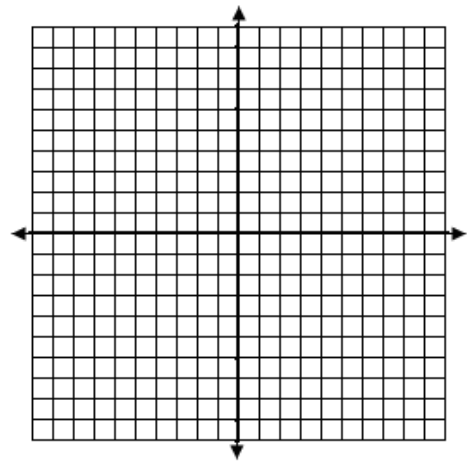
7.  $(x - 3)^2 + (y + 1)^2 = 49$

center: \_\_\_\_\_ radius: \_\_\_\_\_

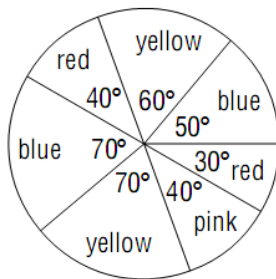


8.  $x^2 + (y - 5)^2 = 4$

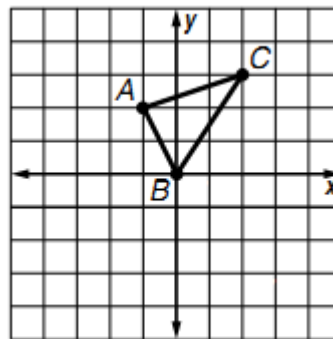
center: \_\_\_\_\_ radius: \_\_\_\_\_



9. Find the area of the pink sector in the region below. The diameter of the circle is 18 cm.



10. Draw triangle  $ABC$  under a dilation with a scale factor of 1.5. Give the coordinates of the image.



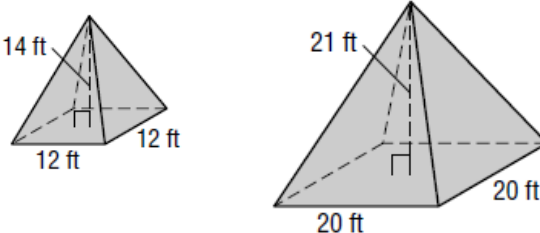
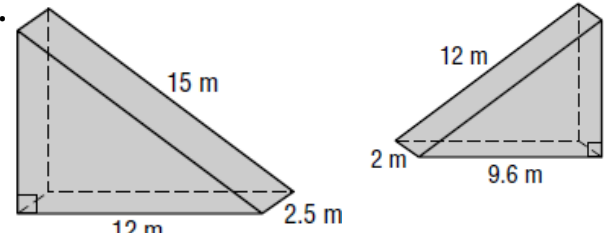
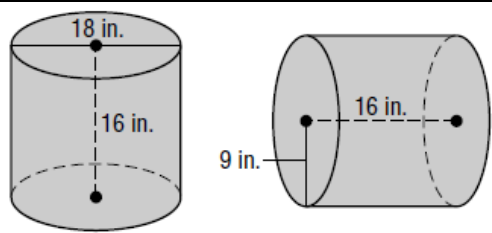
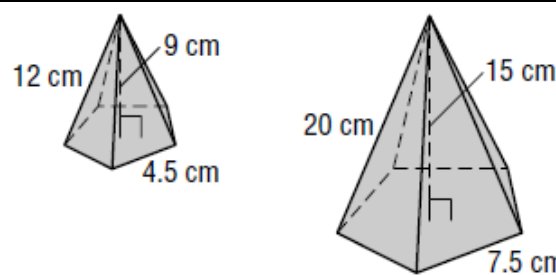
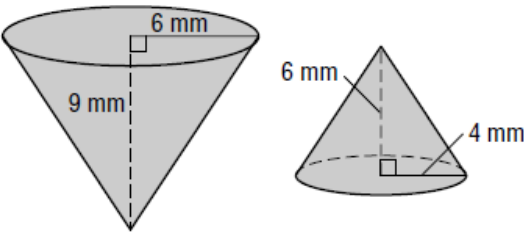
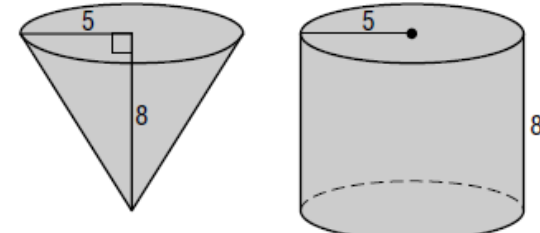
$A'( \quad , \quad )$

$B'( \quad , \quad )$

$C'( \quad , \quad )$

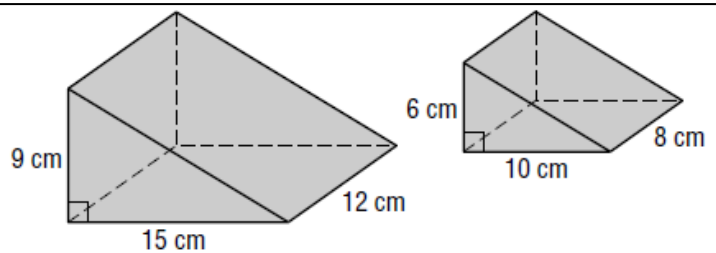
**ASSIGNMENT**

For #1-6, determine whether each pair of solids is *congruent*, *similar*, or *neither*.

|   |  |
|---|--|
| <p><b>1.</b></p>   | <p><b>2.</b></p>   |
| <p><b>3.</b></p>   | <p><b>4.</b></p>   |
| <p><b>5.</b></p>  | <p><b>6.</b></p>  |

**7.** Refer to the following similar prisms.

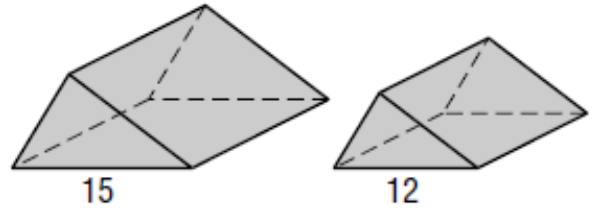
- a. Find the scale factor of the two prisms.
- b. Find the ratio of the surface areas.
- c. Find the ratio of the volumes.



d. Suppose the volume of the larger prism is  $810 \text{ cm}^3$ . Using the ratio of the volumes and not the formula for the volume of a prism, find the volume of the smaller prism.

8. Refer to the following similar prisms.

a. If the height of the larger prism is 20 units, what is the height of the smaller prism?

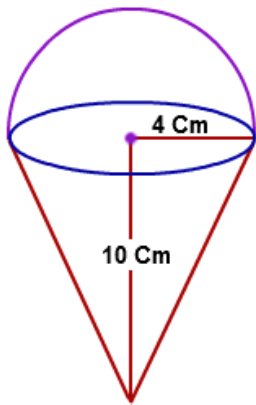


b. If the volume of the larger prism is 1200 units<sup>3</sup>, what is the volume of the smaller prism?

**Review:**

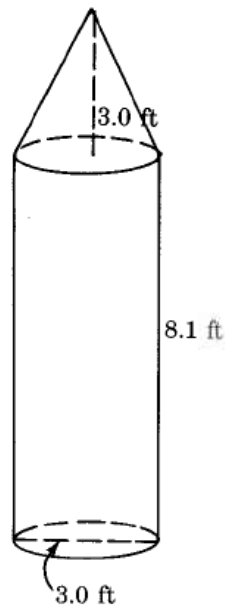
**Find the volume of each figure. Round values to 2 decimal places if necessary.**

9.



Volume = \_\_\_\_\_

10.



Volume = \_\_\_\_\_