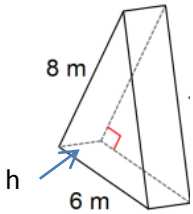
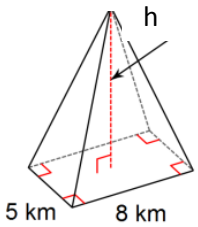
Spiral Day Basic SA and Volume- Notes

Examples: Find the missing dimension. Round to the nearest tenth.

1. The volume of a triangular prism is $96m^3$. The prism has a right triangle base with legs of 8 meters and 6 meters. Find the height of the prism.



2. The volume of the rectangular pyramid has a volume of about 146.67 km^3. The base of the pyramid is a rectangle that is 5 km by 8 km. Find the height of the pyramid.

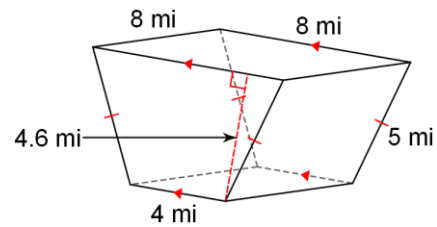


3. The volume of a cylinder is 616π cubic meters and the height is 4 meters. Find the length of the diameter of the cylinder.

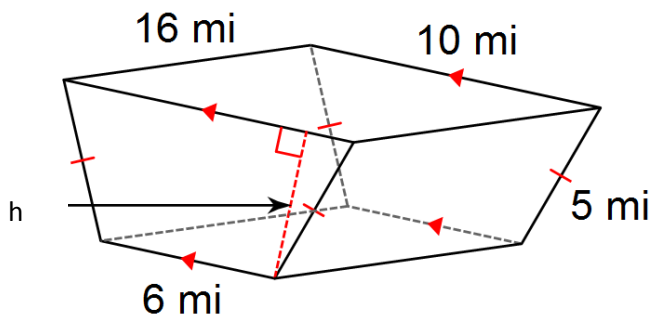
4. The volume of a rectangular prism is 1152 cubic inches and the area of the base is 64 square inches. Find the height of the prism.

5. The surface area of a cone is 261.9π km^2. The cone has a diameter of 18 km. Find the slant height of the cone.

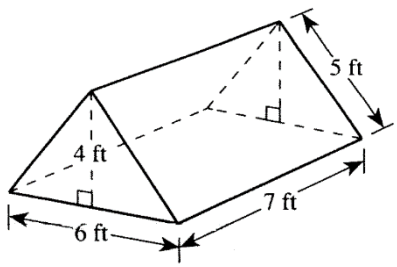
6. Find the surface area of the trapezoidal prism. Round to the nearest tenth.



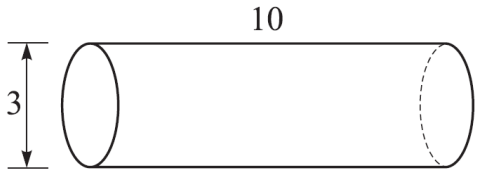
7. The surface area of the trapezoidal prism is 489.6 mi^2. Find the missing length below.



8. The bottomless tent illustrated below is in the shape of a right triangular prism and is made of nylon. How many square feet of nylon is required for the front, rear, and 2 sides of the tent? (Note: Please ignore the extra nylon for seams.)



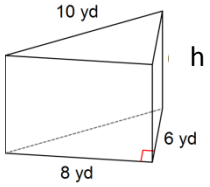
9. A formula for the volume, V, of a right cylinder is $V = \pi r^2 h$, where r is the radius and h is the height. If a tanker truck has a tank as shown below with a diameter of 3 meters and a length of 10 meters and is filled with water, then the weight, in pounds, of the water cargo is: (Note: 1 cubic meter of water weighs approximately 2,205 pounds.)



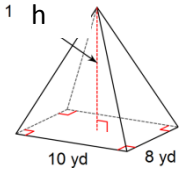
Name: _____ date: _____ Hour: _____

Spiral Day Basic SA and Volume HOMEWORK

1. The volume of a triangular prism is 144 yd^3. The prism has a right triangle base with legs of 8 meters and 6 meters. Find the height of the prism.



2. The volume of the rectangular pyramid has a volume of about 266.67 yd^3. The base of the pyramid is a rectangle that is 10 km by 8 km. Find the height of the pyramid.

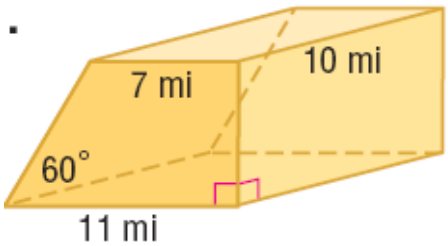


3. The volume of a cylinder is 7875π cubic meters and the radius is 15 meters. Find the height the cylinder.

4. The volume of a rectangular pyramid is 84 in^3 and the area of the base is 12 in^2. Find the height of the pyramid.

5. The surface area of a cone is 250π km^2. The cone has a diameter of 20 km. Find the slant height of the cone.

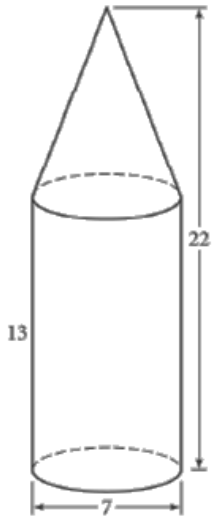
6. Find the surface area and volume of the following figure. Round to the nearest tenth.



Composite Figures Practice

Find the surface area and volume for the following solids. Round to the nearest tenth if needed.

17.



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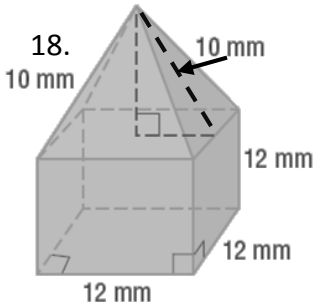

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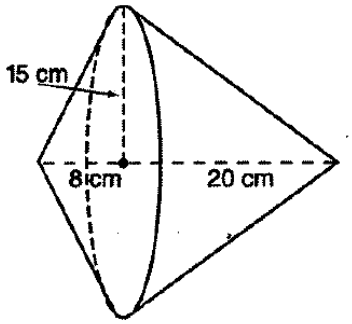

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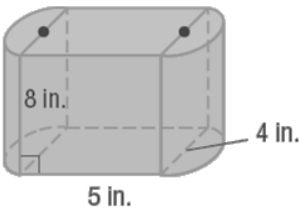
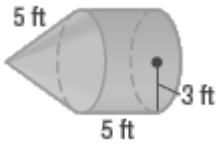
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