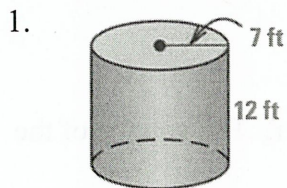
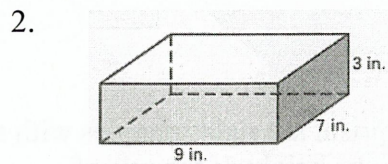


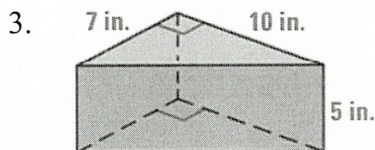
Find the volume of the right prism or right cylinder. Round your answer to the nearest hundredth.



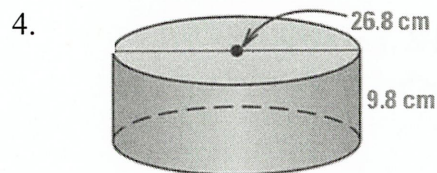
$V = 1,847.26 \text{ ft}^3$



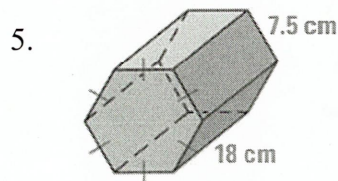
$V = 189 \text{ in}^3$



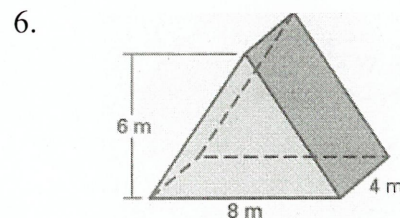
$V = 175 \text{ in}^3$



$V = 5,528.22 \text{ cm}^3$



$V = 2630.55 \text{ cm}^3$



$V = 96 \text{ m}^3$

7. Describe and correct the error in finding the volume of a right cylinder with radius 4 feet and height 3 feet.

$2\pi r = \text{Circumference, should be area} \Rightarrow \pi r^2$

$V = 2\pi r h$

$= 2\pi(4)(3)$

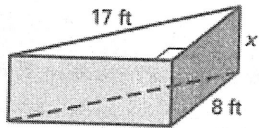
$= 24\pi \text{ ft}^3$

$V = ?$

8. What is the height of a cylinder with radius 4 feet and volume  $64\pi \text{ ft}^3$ ?

$$h = 4 \text{ ft}$$

9. The bases of a right prism are right triangles with side length 8 ft and hypotenuse 17 ft. The volume of the prism is  $360 \text{ ft}^3$ . What is the height of the prism?

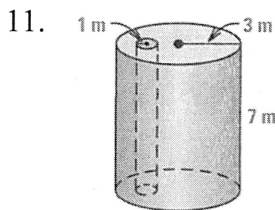


$$h = 6 \text{ ft}$$

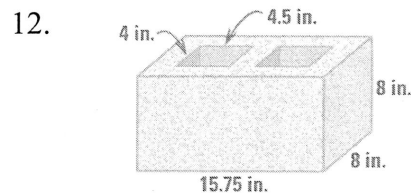
10. A cylinder has height 8 cm and volume  $1005.5 \text{ cm}^3$ . What is the diameter of the cylinder?

$$d = 12.64 \text{ cm}$$

Find the volume of the solid. The prisms and cylinders are right. Round your answer to the nearest hundredth.



$$V = 175.93 \text{ m}^3$$



$$V = 720 \text{ in}^3$$

13. In order to model a home, you need to create four miniature pillars out of plaster of paris. The pillars will be shaped as regular hexagonal prisms with a face width of 2 in and a height of 12 in. Round your answers to the nearest hundredth.

a.) What is the area of the base of a pillar?

$$B = 10.39 \text{ in}^2$$

b.) How much plaster of paris is needed for one pillar?

$$V = 124.71 \text{ in}^3$$

c.) Is  $480 \text{ in}^3$  enough plaster of paris for all four pillars?

No, explain why.

