Geometry- Mrs. Tilus   Name: _____
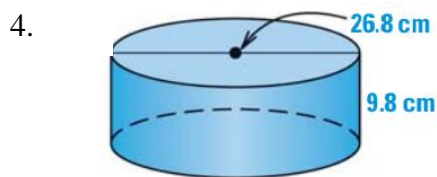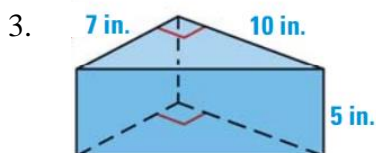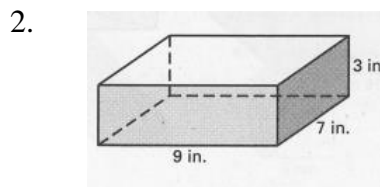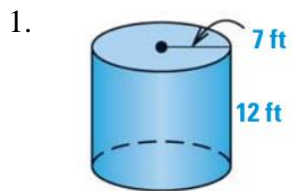Unit 12- Worksheet #4: Volume of Prisms and Cylinders Worksheet

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

1.

7 ft

12 ft

2.

3 in.

7 in.

9 in.

3.   7 in.   10 in.

5 in.

4.   26.8 cm

9.8 cm

5.   7.5 cm

18 cm

6.

6 m

8 m

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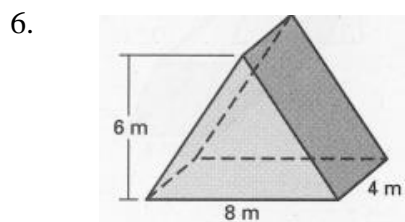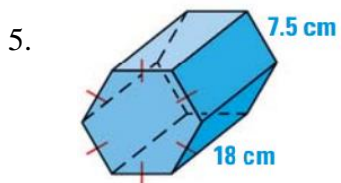
7. Describe and correct the error in finding the voulme of a right cylinder with radius 4 feet and height 3 feet.

$V = 2\pi rh$

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

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

8. What is the height of a cylinder with radius 4 feet and volume 64π ft^3?

9. The bases of a right prism are right triangles with side length 8 ft and hypotenuse 17 ft. The volume of the prim is 360 ft^3. What is the height of the prism?
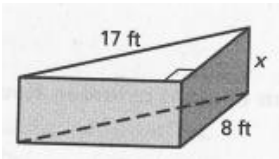
10. A cylinder has height 8 cm and volume 1005.5 cm^3. What is the diameter of the cylinder?

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

11.

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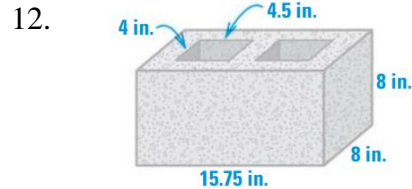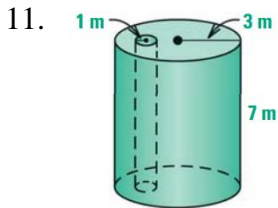
13. In order to model a home, you need to create four miniature pillars out of plaster of paris. The pillars will be shaped as regular hexagonalprisms with a face width of 2 in and a height of 12 in. Round your answers to the nearest hundreth.

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

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

c.) Is 480 in^3 enough plaster of paris for all four pillars?