

Name: _____

Geometry

11.4-11.7 Study Guide

Find the volume of each solid.

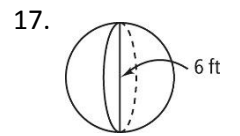
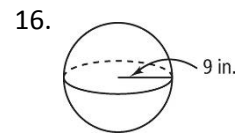
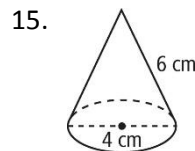
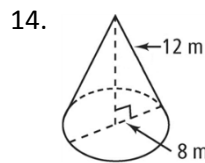
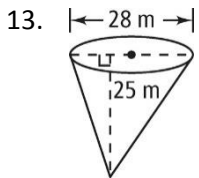
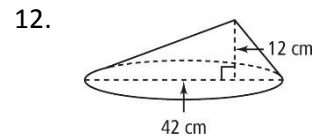
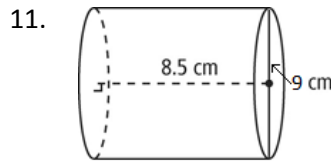
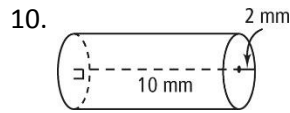
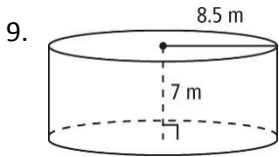
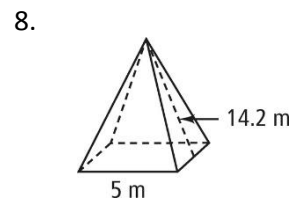
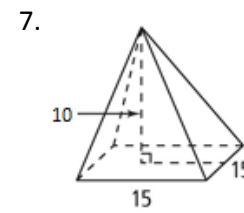
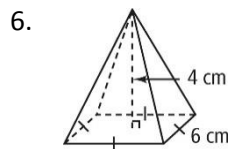
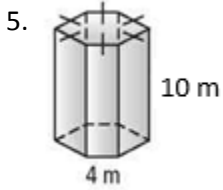
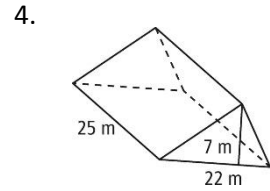
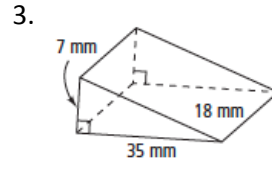
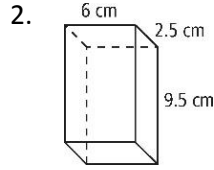
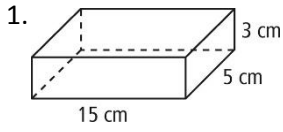
$$V = Bh$$

$$V = \pi r^2 h$$

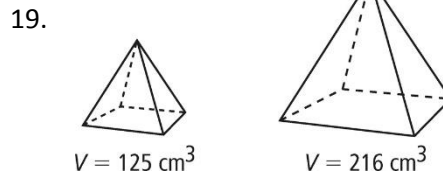
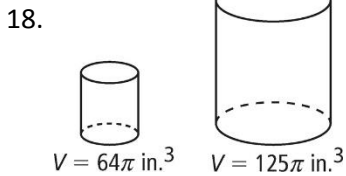
$$V = \frac{1}{3} Bh$$

$$V = \frac{1}{3} \pi r^2 h$$

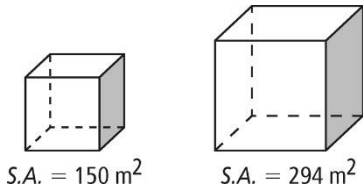
$$V = \frac{4}{3} \pi r^3$$



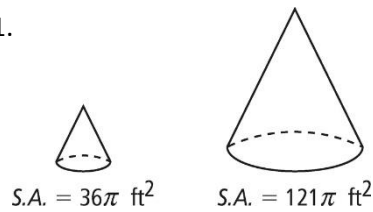
Each pair of figures is similar. Use the given information to find the scale factor of the smaller figure to the larger figure.



20.



21.



The surface areas of two similar figures are given. The volume of the larger figure is given. Find the volume of the smaller figure.

22. SA = 36 m^2
 SA = 225 in^2
 V = 750 m^3

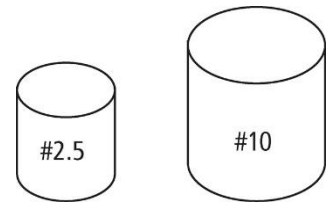
23. SA = 108 in^2
 SA = 192 m^2
 V = 1408 in^3

The volumes of two similar figures are given. The surface area of the smaller figure is given. Find the surface area of the larger figure.

24. V = 8 m^3
 V = 27 m^3
 SA = 36 m^2

25. V = 125 in^3
 V = 216 in^3
 SA = 200 in^2

26. A No. 10 can has a diameter of 15.5 cm and a height of 17.5 cm. A No. 2.5 can has a diameter of 9.8 cm and a height of 11 cm. What is the difference in volume of the two can types, to the nearest cubic centimeter?



27. A piece of balsa wood is 45 cm long, 8 cm high and 4 cm wide. It weighs 500g. What is its density?

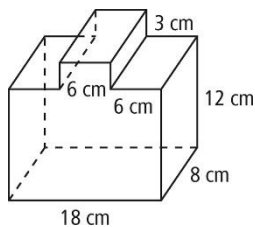
28. The diameter of the Earth is about 7926 miles. Find the Volume.



29. A full waterbed mattress is 7 ft x 4 ft x 1 ft. If $1 \text{ ft}^3 \approx 7.48 \text{ gal}$ of water, about how many gallons of water do you need to fill up the mattress?

Find the volume of each figure.

30.



31.

