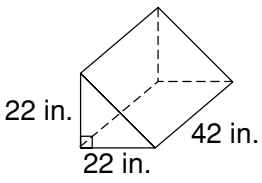
LESSON 9-5

Practice B

Volume of Prisms and Cylinders

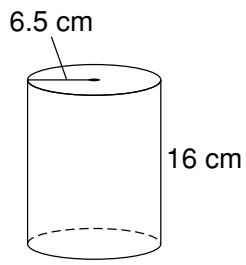
Find the volume of each figure to the nearest tenth. Use 3.14 for π.

1.



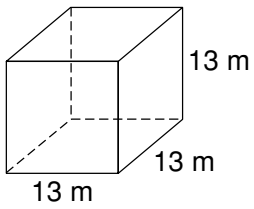
10,164 in^3

2.



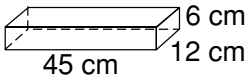
2122.6 cm^3

3.



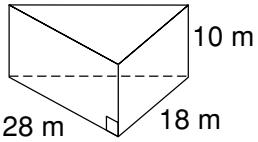
2197 m^3

4.



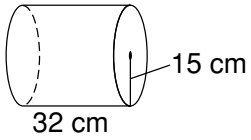
3240 cm^3

5.



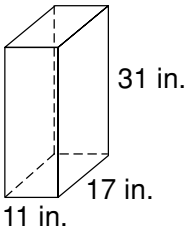
2520 m^3

6.



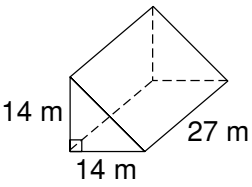
22,608 cm^3

7.



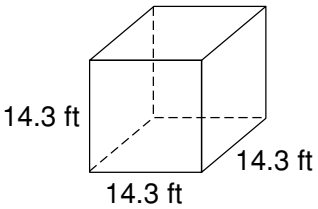
5797 in^3

8.



2646 m^3

9.



2924.2 ft^3

10. A cylinder has a radius of 6 ft and a height of 25 ft. Explain whether tripling the height will triple the volume of the cylinder. **Possible answer:**

The original cylinder has a volume of 2826 ft^3. If you triple the height the volume is 8478 ft^3, which is triple the original volume.

11. Contemporary American building bricks are rectangular blocks with the standard dimensions of about 5.7 cm by 9.5 cm by 20.3 cm. What is the volume of a brick to the nearest tenth of a unit?

1099.2 cm^3

12. Ian is making candles. His cylindrical mold is 8 in. tall and has a base with a diameter of 3 in. Find the volume of a finished candle to the nearest tenth of a unit.

56.5 in^3

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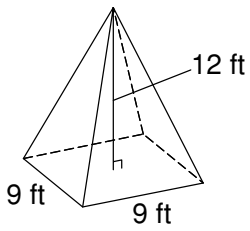
LESSON 9-5

Practice B

Volume of Pyramids and Cones

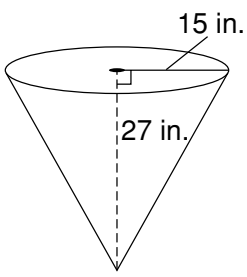
Find the volume of each figure to the nearest tenth. Use 3.14 for π.

1.



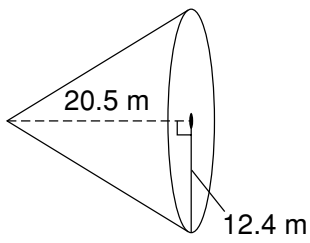
324 ft^3

2.



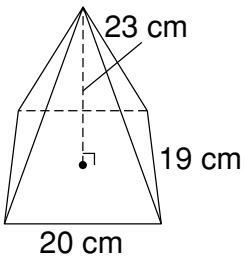
6358.5 in^3

3.



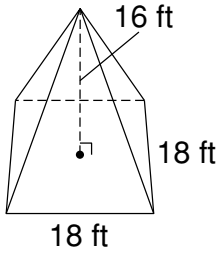
3299.2 m^3

4.



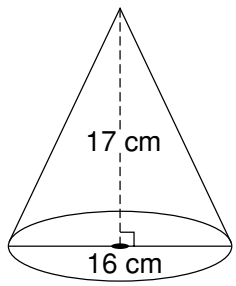
2913.3 cm^3

5.



1728 ft^3

6.



1138.8 cm^3

7. The base of a regular pyramid has an area of 28 in^2. The height of the pyramid is 15 in. Find the volume.

140 in^3

8. The radius of a cone is 19.4 cm and its height is 24 cm. Find the volume of the cone to the nearest tenth.

9454.2 cm^3

9. Find the volume of a rectangular pyramid if the height is 13 m and the base sides are 12 m and 15 m.

780 m^3

10. A funnel has a diameter of 9 in. and is 16 in. deep. Use a calculator to find the volume of the funnel to the nearest hundredth.

339.29 in^3

11. A square pyramid has a height 18 cm and a base that measures 12 cm on each side. Explain whether tripling the height would triple the volume of the pyramid.

Possible answer:

The volume of the original pyramid is 864 cm^3. The volume of the new pyramid is 2592 cm^3. Therefore, if the height of the pyramid were tripled, its volume would be tripled.

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