Lesson Practice

Choose the correct answer.

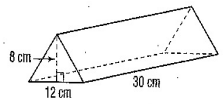
1. What is the volume of a cube with sides each 12 inches long? Use the formula $V = lwh$.

   A. 144 $in.^3$
   B. 864 $in.^3$
   C. 1,728 $in.^3$
   D. 20,736 $in.^3$

2. A swimming pool is shaped like a rectangular prism. The pool is 45 feet long, 25 feet wide, and 5 feet deep. What is the volume of the swimming pool? Use the formula $V = lwh$.

   A. 150 ft^3
   B. 5,625 ft^3
   C. 11,250 ft^3
   D. 28,125 ft^3

3. What is the volume of this triangular prism? Use the formula $V = Bh$.

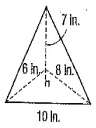


   A. 1,440 cm^3
   B. 1,490 cm^3
   C. 2,880 cm^3
   D. 2,980 cm^3

4. A cylinder has a radius of 3 inches and a height of 9 inches. What is the approximate volume of this cylinder? Use the formula $V = \pi r^2 h$. Use 3.14 for π.

   A. 169.56 $in.^3$
   B. 254.34 $in.^3$
   C. 763.02 $in.^3$
   D. 1,017.35 $in.^3$

5. What is the volume of this triangular pyramid? Use the formula $V = \frac{1}{3}Bh$.



   A. 56 $in.^3$
   B. 168 $in.^3$
   C. 280 $in.^3$
   D. 336 $in.^3$

6. A cone has a radius of 8 centimeters and a height of 5 centimeters. What is the approximate volume of the cone? Use the formula $V = \frac{1}{3}\pi r^2 h$ and 3.14 for π.

   A. 41.9 cm^3
   B. 83.7 cm^3
   C. 251.2 cm^3
   D. 334.9 cm^3

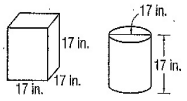
7. The volume of a cylinder is 270 m^3. What is the volume of a cone with the same radius and height?

   A. 90 m^3
   B. 135 m^3
   C. 540 m^3
   D. 810 m^3

8. The volume of a pyramid is 144 cm^3. What is the volume of a prism with the same base size and height?

   A. 48 cm^3
   B. 72 cm^3
   C. 288 cm^3
   D. 432 cm^3

9. Denver wants to choose the ottoman with the most hidden storage room. His choices are shown below.



   A. What is the volume of the cubic ottoman? Show your work.

   Answer: _____

   B. What is the volume of the cylindrical ottoman to the nearest whole number? Use the formula $V = \pi r^2 h$ and 3.14 for π. Show your work.

   Answer: _____

   C. What is the difference in volume in cubic inches between the ottomans? Show your work.

   Answer: _____