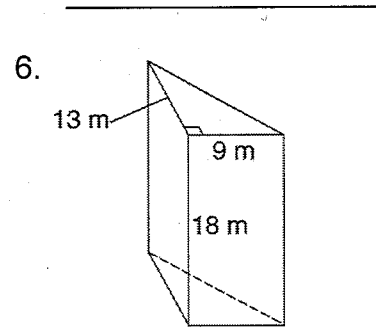
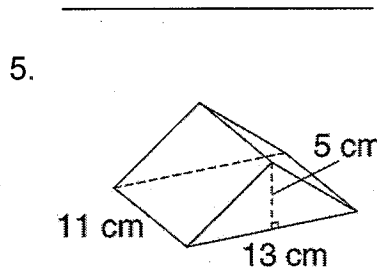
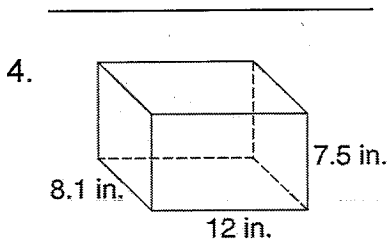
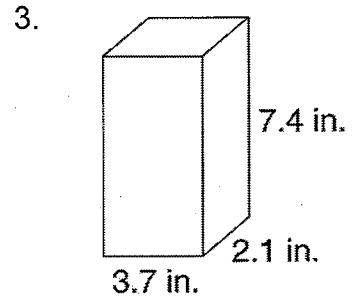
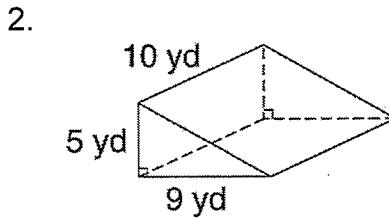
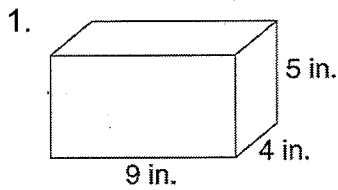


LESSON
10-2

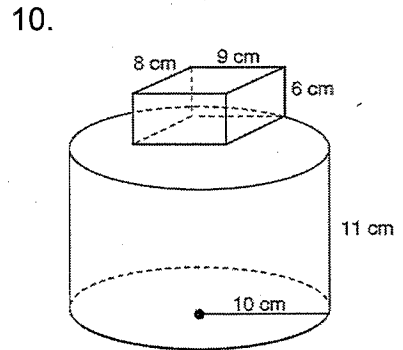
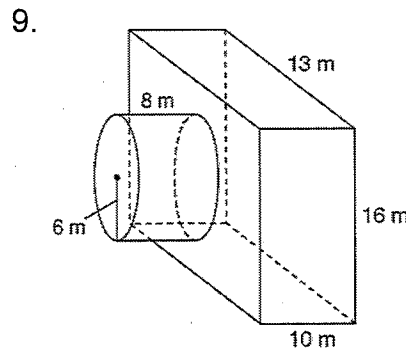
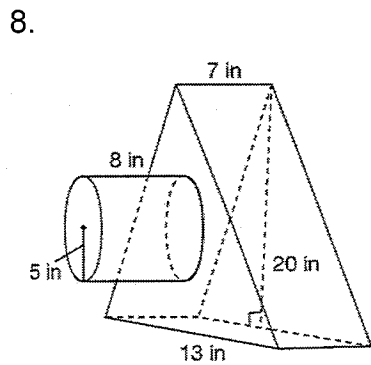
Practice B
Volume of Prisms and Cylinders

Find the volume of each figure.



7. A travel mug is shaped like a cylinder. It is 9 centimeters wide and 15 centimeters tall. Find its volume to the nearest tenth. Use 3.14 for π .

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



LESSON

10-2

Problem Solving***Volume of Prisms and Cylinders*****Write the correct answer.**

1. The eight Corinthian columns at the National Building Museum in Washington, DC, are each 75 feet high and 8 feet in diameter. What is the volume of each column?

2. A cubic centimeter holds 1 milliliter of liquid. How many liters of water to the nearest tenth are required to fill a fish tank that is 24 centimeters high, 28 centimeters long, and 36 centimeters wide?

3. There are 231 cubic inches in a gallon. A large juice can has a diameter of 6 inches and a height of 10 inches. How many gallons of juice does the can hold? Round your answer to the nearest tenth.

4. A small gift box that holds a ring is shaped like a cube. The box measures 1.4 inches on each side. What is the volume of the gift box? Round your answer to the nearest tenth.

Choose the letter of the correct answer.

5. The Leaning Tower of Pisa in Italy appears to be cylindrical in shape. Its height is about 56 meters. If the volume of the tower is about 9,891 cubic meters, what is the diameter of the base?
A about 3.5 m C about 15 m
B about 7 m D about 20 m
6. A bricklayer is building a brick rectangular post to anchor a mailbox. The post is 3 feet tall, 2 feet deep, and 2 feet wide. Each brick is 3 inches by 6 inches by 3 inches. How many bricks does he need?
F 12 bricks H 197 bricks
G 54 bricks J 384 bricks
7. The average stone on the lowest level of the Great Pyramid in Egypt was a rectangular prism 5 feet long by 5 feet high by 6 feet deep and weighed 15 tons. What was the volume of the average stone?
A $1,800 \text{ ft}^3$ C 150 ft^3
B $1,800 \text{ ft}^2$ D 150 ft^2
8. A cylindrical barrel is 2.8 feet in diameter and 8 feet high. If a cubic foot holds about 7.5 gallons of liquid, how many gallons of water will this barrel hold?
F about 1,477 gal
G about 369 gal
H about 150 gal
J about 470 gal