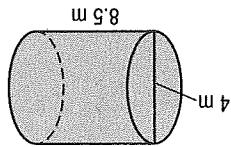
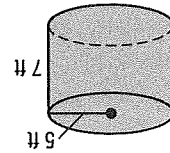


12. The surface area is 1520.5 square yards, and the height is 14.2 yards.
11. The surface area is 226.2 square centimeters, and the height is 5 centimeters.
10. The surface area is 100.5 square inches, and the height is 6 inches.
9. The surface area is 603.2 square meters, and the height is 10 meters.

Find the radius of the base of each cylinder:



8.



7.

Find the surface area of each cylinder. Round to the nearest tenth.

6.  $d = 24 \text{ mm}, h = 20 \text{ mm}$

5.  $d = 8 \text{ m}, h = 7 \text{ m}$

4.  $d = 20 \text{ yd}, h = 5 \text{ yd}$

3.  $r = 5 \text{ ft}, h = 20 \text{ ft}$

2.  $r = 8 \text{ cm}, h = 15 \text{ cm}$

1.  $r = 10 \text{ in.}, h = 12 \text{ in.}$

nearest tenth.

Find the surface area of a cylinder with the given dimensions. Round to the

### Surface Areas of Cylinders

## Skills Practice

# 12-3

NAME \_\_\_\_\_

DATE \_\_\_\_\_

PERIOD \_\_\_\_\_

**12-3**

**Word Problem Practice**

**Surface Areas of Cylinders**

NAME \_\_\_\_\_ DATE \_\_\_\_\_ PERIOD \_\_\_\_\_

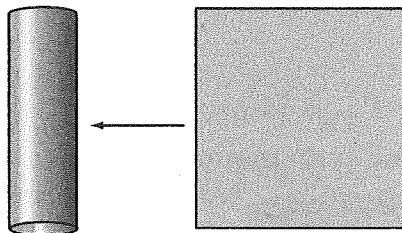
- 1. DRUMS** A drum is shaped like a cylinder with a height of 5 inches and a radius of 7 inches. What is the surface area of the drum? Round your answer to the nearest hundredth.

- 2. DRINKING GLASSES** A drinking glass is shaped like a cylinder with a height of 7 inches and a diameter of 3 inches.



What is the surface area of the drinking glass? Remember that the glass has an open top. Round your answer to the nearest hundredth.

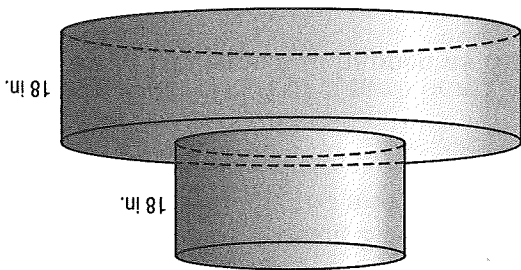
- 3. ORIGAMI** Hank takes a square sheet of paper and rolls it into a cylinder. The square is 10 inches by 10 inches.



What are the dimensions of the cylinder and what is the lateral area of the cylinder? Round your answers to the nearest hundredth.

- 4. EXHAUST PIPES** An exhaust pipe is shaped like a cylinder with a height of 50 inches and a radius of 2 inches. What is the lateral surface area of the exhaust pipe? Round your answer to the nearest hundredth.

**TOWERS** For Exercises 5 and 6, use the following information.  
A circular tower is made by placing one cylinder on top of another. Both cylinders have a height of 18 inches. The top cylinder has a radius of 18 inches and the bottom cylinder has a radius of 36 inches.



- 5.** What is the total surface area of the tower? Round your answer to the nearest hundredth.

- 6.** Another tower is constructed by placing the original tower on top of another cylinder with a height of 18 inches and a radius of 54 inches. What is the total surface area of the new tower? Round your answer to the nearest hundredth.