

H

# Circumferences and Areas of Circles

**EXAMPLE**

Find the circumference and area of a circle with a radius of 5 feet.

To find the circumference, use the formula  $C = \pi d$ .

First, calculate the diameter.

$$2 \cdot 5 = 10 \text{ feet}$$

$$C = (3.14)(10) = 31.4 \text{ feet}$$

To find the area, use the formula  $A = \pi r^2$ .

$$A = (3.14)(5^2) = 78.5 \text{ feet}^2$$

**Directions** Find the circumference of a circle with the given radius or diameter. Use the formula  $C = \pi d$ . Use 3.14 for  $\pi$ .

1. radius = 4 in. \_\_\_\_\_

4. diameter = 10 mm \_\_\_\_\_

2. diameter = 6 ft \_\_\_\_\_

5. radius = 7 km \_\_\_\_\_

3. radius = 2 m \_\_\_\_\_

**Directions** Find the area of a circle with the given radius or diameter. Use the formula  $A = \pi r^2$ . Use 3.14 for  $\pi$ .

6. radius = 3 yd \_\_\_\_\_

11. radius = 6 km \_\_\_\_\_

7. diameter = 10 cm \_\_\_\_\_

12. radius = 5 mi \_\_\_\_\_

8. radius = 7 ft \_\_\_\_\_

13. diameter = 6 in. \_\_\_\_\_

9. diameter = 4 m \_\_\_\_\_

14. radius = 8 ft \_\_\_\_\_

10. diameter = 14 in. \_\_\_\_\_

15. radius = 10 m \_\_\_\_\_

**Directions** Use a calculator and the formula  $A = \pi r^2$  to find the areas of circles with the following measures. Use 3.14 for  $\pi$ .

16. diameter = 1.25 yd \_\_\_\_\_

19. diameter = 9.5 m \_\_\_\_\_

17. radius = 215 mi \_\_\_\_\_

20. radius = 1.8 km \_\_\_\_\_

18. radius = 6.7 ft \_\_\_\_\_