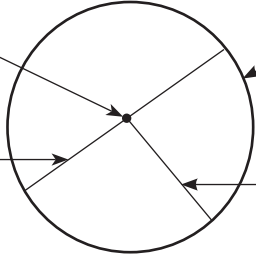


# Lesson 1 Reteach

## Circumference



The **center** is the point in the middle of a circle.

The **diameter**,  $d$ , is the distance across a circle through its center.

The **circumference**,  $C$ , is the distance around a circle.

The **radius**,  $r$ , is the distance from the center to any point on a circle.

The diameter of a circle is twice its radius.  
 The radius is half the diameter.  
 The circumference of a circle is equal to  $\pi$  times its diameter or  $\pi$  times twice its radius.

$$d = 2r$$

$$r = \frac{d}{2}$$

$$C = \pi d$$

$$C = 2\pi r$$

### Example 1

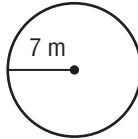
The radius of a circle is 7 meters. Find the diameter.

$$d = 2r$$

$$d = 2 \cdot 7 \quad \text{Replace } r \text{ with 7.}$$

$$d = 14 \quad \text{Multiply.}$$

The diameter is 14 meters.



### Example 2

Find the circumference of a circle with a radius that is 13 inches. Use 3.14 for  $\pi$ . Round to the nearest tenth.

$$C = 2\pi r$$

Write the formula.

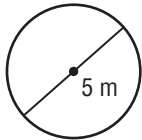
$$C \approx 2 \times 3.14 \times 13 \quad \text{Replace } r \text{ with 13 and } \pi \text{ with 3.14.}$$

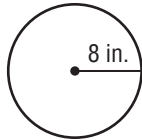
$$C \approx 81.64 \quad \text{Multiply.}$$

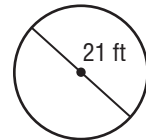
Rounded to the nearest tenth, the circumference is about 81.6 inches.

### Exercises

Find the circumference of each circle. Use 3.14 or  $\frac{22}{7}$  for  $\pi$ . Round to the nearest tenth if necessary.

1.   
 $3.14 \times 5 = 15.7\text{m}$

2.   
 $3.14 \times 16 = 50.2 \text{ in}$

3.   
 $\frac{22}{7} \times 21 = 66 \text{ ft}$