

**LESSON**

**9-2**

# Finding Circumference

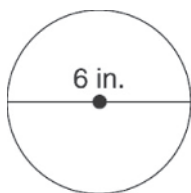
## Reteach

The distance around a circle is called the **circumference**. To find the circumference of a circle, you need to know the diameter or the radius of the circle.

The ratio of the circumference of any circle to its diameter  $\left(\frac{C}{d}\right)$

is always the same. This ratio is known as  $\pi$  (pi) and has a value of approximately 3.14.

To find the circumference  $C$  of a circle if you know the diameter  $d$ , multiply  $\pi$  times the diameter.  $C = \pi \cdot d$ , or  $C \approx 3.14 \cdot d$ .



$$C = \pi \cdot d$$

$$C \approx 3.14 \cdot d$$

$$C \approx 3.14 \cdot 6$$

$$C \approx 18.84$$

The circumference is about 18.8 in. to the nearest tenth.

The diameter of a circle is twice as long as the radius  $r$ , or  $d = 2r$ .

To find the circumference if you know the radius, replace  $d$  with  $2r$  in the formula.  $C = \pi \cdot d = \pi \cdot 2r$

### Find the circumference given the diameter.

1.  $d = 9$  cm

$$C = \pi \cdot d$$

$$C \approx 3.14 \cdot \underline{\hspace{2cm}}$$

$$C \approx \underline{\hspace{2cm}}$$

The circumference is \_\_\_\_\_ cm to the nearest tenth of a centimeter.

### Find the circumference given the radius.

2.  $r = 13$  in.

$$C = \pi \cdot 2r$$

$$C \approx 3.14 \cdot (2 \cdot \underline{\hspace{2cm}})$$

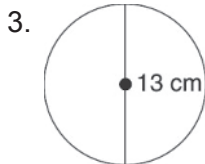
$$C \approx 3.14 \cdot \underline{\hspace{2cm}}$$

$$C \approx \underline{\hspace{2cm}}$$

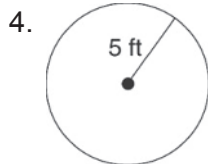
The circumference is \_\_\_\_\_ in. to the nearest tenth of an inch.

### Find the circumference of each circle to the nearest tenth.

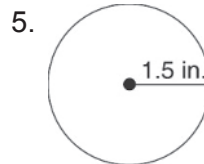
Use 3.14 for  $\pi$ .



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