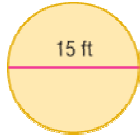


Lesson 2-7

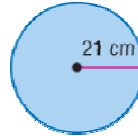
Example 1

Find the circumference.

- a. Use 3.14 for π .



- b. Use $\frac{22}{7}$ for π .



Solution

a. $C = \pi d$

$$C \square 3.14 \cdot 15$$

$$C \square 47.1$$

The circumference is approximately 47.1 ft.

b. $C = 2\pi r$

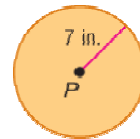
$$C \square 2 \cdot \frac{22}{7} \cdot 21$$

$$C \square 132$$

The circumference is approximately 132 cm.

Example 2

Find the area of circle P to the nearest square centimeter. Use $\pi \approx 3.14$.



Solution

$$A = \pi r^2$$

$$A \square 3.14 \cdot 7^2$$

Substitute 7 for r .

$$A \square 3.14 \cdot 49$$

$$A \square 153.86$$

$$A \square 154$$

Round to the nearest whole number.

The area of circle P is approximately 154 in².

Example 3

SPORTS Archery targets have circular faces that come in several sizes. One of the official sizes used on competition has a face with diameter 80 cm. Find the circumference and area of this target face. Round your answers to the nearest whole number.

Solution

$$C \approx 3.14 \cdot 80$$

$$C \approx 251.2 \approx 251$$

$$C = 2\pi r$$

$$A \approx 3.14 \cdot 40^2$$

$$A \approx 5024$$

$$A = \pi r^2$$

The circumference of the target face is about 251 cm, and the area is about 5024 cm².