1. What is circumference of a circle?

Distance around the circle

2. What is area of a circle?

Amount contained inside the circle.

16.1 Circumference and Area of a Circle

Circumference:

$C = 2\pi r$ or $C = \pi d$

Area:

$A = \pi r^2$

1. A Ferris wheel has a diameter of 40 feet. What is its circumference? Use 3.14 for π.

$$C = \pi d$$
$$C = (3.14)(40)$$
$$\boxed{C = 125.6 \text{ ft}}$$

2. The circumference of a tree is 20 feet. What is its diameter? Round to the nearest tenth of a foot. Use 3.14 for π.

$$C = \pi \cdot d$$
$$\frac{20}{3.14} = \frac{3.14 \cdot d}{3.14}$$
$$\boxed{6.4 \text{ ft} = d}$$

3. The circumference of a circular fountain is 32 feet. What is its diameter? Round to the nearest tenth of a foot. Use 3.14 for π.

$$C = \pi \cdot d$$
$$\frac{32}{3.14} = \frac{3.14 \cdot d}{3.14}$$

$$10.2 \, ft = d$$

4.

A slice of a circular pizza measures 9 inches in length. What is the area of the entire pizza? Use 3.14 for π.

$$A = \pi r^2$$
$$A = (3.14)(9)^2$$
$$A = 254.34 \, in^2$$

A circular swimming pool has a diameter of 18 feet. To the nearest square foot, what is the smallest amount of material needed to cover the surface of the pool? Use 3.14 for π.

$$A = \pi r^2$$
$$A = \pi (9)^2$$
$$A = 254 \, ft^2$$

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