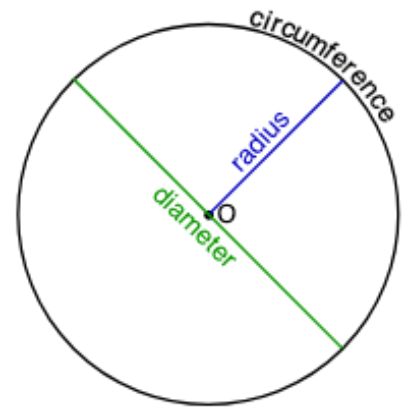


Pi Day Worksheet



Circumference of a circle

What is the circumference of a circle?

The circumference of a circle is the distance around the circle's edge. It is similar to perimeter in geometric figures.

Formula for Circumference of a circle

$$C = 2\pi r$$

Circumference Questions

Practice Questions

1. A circle has a diameter of 12 cm. What is the radius of the circle?
2. Calculate the circumference of a circle with a radius of 10 cm.
3. Calculate the circumference of a circle with a diameter of 15 cm.

Real World Application

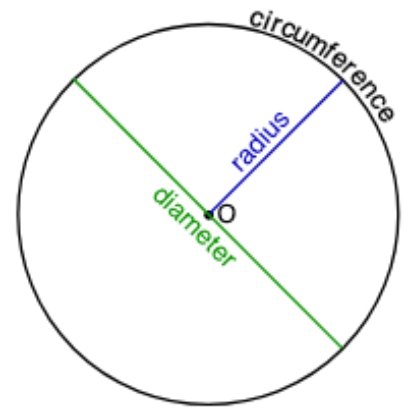
A circular track has a radius of 7 meters.

1. What is the distance around the track? Round your answer to the nearest whole number.
2. What is the distance covered by an athlete running 3 complete laps around the track?

R = Radius (half of the diameter); D = Diameter (distance from one side of circle to another)

$$\pi = 3.14$$

Pi Day Worksheet



Area of a Circle

What is the area of a circle?

The area of a circle is the space occupied by the boundary of a 2-dimensional circle.

Formula for area of a circle $A = \pi r^2$

Area Questions

Practice Questions

1. Find the area of a circle with a radius of 4 cm
2. Find the area of a circle with a diameter of 16 cm

Real World Application

1. The radius of a circular garden is 5 meters. What is the area of the garden in square meters? Round your answer to the nearest whole number.
2. A circular swimming pool has a radius of 10 meters. What is the area of the pool in square meters. Round your answer to the nearest whole number.

R = Radius (half of the diameter; D = Diameter (distance from one side of circle to another

$\pi = 3.14$

Pi Day Worksheet Answers

Circumference Questions

Practice Questions

1. 6 cm
2. 62.8 cm
3. 47.1 cm

Real World Application

A circular track has a radius of 7 meters.

1. 44 m
2. 132 m

Area Questions

Practice Questions

1. 50.24 sq. m
2. 200.96 sq. cm

Real World Application

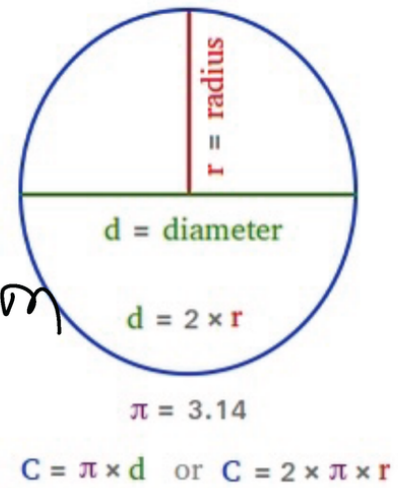
1. 79 sq. m
2. 314 sq. m

Circumference Questions Answers

Practice Questions

A circle has a diameter of 12 cm. What is the radius of the circle?

$$R = \frac{d}{2} \quad R = \frac{12}{2} \quad R = 6 \text{ cm}$$



Calculate the circumference of a circle with a radius of 10 cm.

$$\begin{aligned} C &= 2\pi r \\ C &= 2 \times \pi \times 10 \\ C &= 2 \times 3.14 \times 10 \\ C &= 62.8 \text{ cm} \end{aligned}$$

Calculate the circumference of a circle with a diameter of 15 cm.

$$\begin{aligned} C &= \pi d \\ C &= \pi \times 15 \\ C &= 3.14 \times 15 \\ C &= 47.1 \text{ cm} \end{aligned}$$

Real World Application

A circular track has a radius of 7 meters.

What is the distance around the track? Round your answer to the nearest whole number

What is the distance covered by an athlete running 3 complete laps around the track?



$$\begin{aligned} C &= \pi \times 2 \times r \\ C &= 3.14 \times 2 \times 7 \\ C &= 43.96 \text{ / } 44 \text{ m} \end{aligned} \quad \left. \begin{array}{l} 44 \times 3 \\ = 132 \text{ m} \end{array} \right\}$$

Area of Circle Answers

Practice Questions

Find the area of a circle with a radius of 4 cm

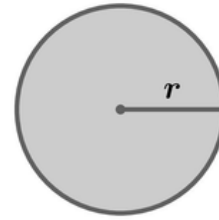
$$\begin{aligned}A &= \pi r^2 \\A &= 3.14 \times 4^2 \\A &= 3.14 \times 16 \\A &= 50.24 \text{ cm}^2\end{aligned}$$

Find the area of a circle with a diameter of 16 cm

$$\begin{aligned}R &= \frac{d}{2} & R &= \frac{16}{2} \\ & & R &= 8\end{aligned}$$

$$\begin{aligned}A &= \pi r^2 \\A &= 3.14 \times 8^2 \\A &= 3.14 \times 64 \\A &= 200.96 \text{ cm}^2\end{aligned}$$

Area of Circle



$$A = \pi r^2$$

Real World Application

The radius of a circular garden is 5 meters. What is the area of the garden in square meters? Round your answer to the nearest whole number.

$$\begin{aligned}A &= \pi r^2 \\A &= 3.14 \times 5^2 \\A &= 3.14 \times 25 \\A &= 78.5 \quad / 79 \text{ m}^2\end{aligned}$$

A circular swimming pool has a radius of 10 meters. What is the area of the pool in square meters? Round your answer to the nearest whole number.

$$\begin{aligned}A &= \pi r^2 \\A &= 3.14 \times 10^2 \\A &= 3.14 \times 100 \\A &= 314 \text{ m}^2\end{aligned}$$