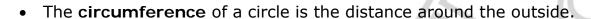


## DETERMINE THE AREA AND CIRCUMFERENCE OF A CIRCLE



- The **diameter** of a circle is the distance across the inside of a circle through the center.
- The radius of a circle is half the diameter.
- The circumference is calculated by multiplying the diameter of the circle times the value of pi ( $\mathbf{n}$ ) which is approximately  $\mathbf{3.14} \rightarrow \mathbf{C} = \mathbf{nD}$
- The area of a circle is the space contained within the circumference. It is measured in square units.
- The area of a circle is calculated by multiply pi ( $\mathbf{n}$ ) times the radius squared  $\rightarrow \mathbf{nr}^2$

## How to det

Use the

Input th



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• U - IO (III

 $C = 3.14 \times 15$ 

C = 47.10 cm.

• C = π x D

■ D = 8 cm

•  $C = 3.14 \times 8$ 

• C = 25.12 cm.

• Use the formula  $\mathbf{A} = \mathbf{n} \times \mathbf{r}^2$  to calculate the area of a circle.

## circle:

of a circle.

n.



- Input the length of the radius and perform the operation.
  - $\mathbf{A} = \mathbf{n} \times \mathbf{r}^2$
  - D = 12 cm  $\rightarrow$  r = 6 cm
  - $A = 3.14 \times 6^2$
  - A = 3.14 X 36
  - A = 113.04 sq. cm
  - $A = \pi \times r^2$
  - D = 20 cm  $\rightarrow$  r = 10 cm
  - $A = 3.14 \times 10^2$
  - $A = 3.14 \times 100$
  - A = 314 sq. cm
- To dete the forr and cor



ose either ne values

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## **Try This!**

- 1. What is the area of a circle with a diameter of 24 inches?
- 2. What is the area of a circle with a radius of 15 cm?
- 3. What is the circumference of a circle with a diameter of 17 feet?
- 4. What is



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) feet?

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5. What are the circumference and the area of a circle with a diameter of 8 cm?