Name_____ Per _____

4-8 Area of a Circle

To solve for Area of a Circle use the formula:
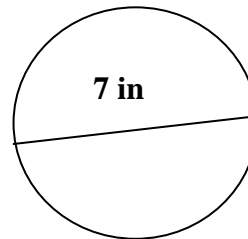
$$\boxed{\textbf{Area } = \pi \textbf{ x } r^2 \quad \textbf{or} \quad \textbf{Area } = \pi \textbf{ x } r \textbf{ x } r}$$

Remember to round all answers back to the hundredths!

Example #1: Find the Area

6 cm

A $= \pi$ x r x r
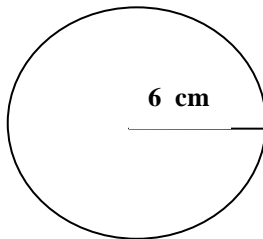
A $= 3.14$ x 6 x 6

A $= 113.04$ cm^2

Example #2: Find the Area

7 in

$r = ½ d$

$r = ½ (7)$

$r = 3.5$

Now you're ready to solve for Area:

A $= \pi$ x r^2

A $= 3.14$ x 3.5 x 3.5

A $= 38.465 = 38.47$ in^2
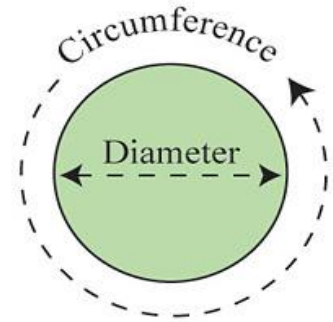
Example #3: Find the Area:

**Circumference is 30 units.

**The key is to find the diameter first, then the radius second, then the Area.

Solve for diameter: 1. $d = c \div \pi$

$d = 30 \div 3.14$

$d = 9.554 = 9.55$

Then, solve for radius: 2. $r = d \div 2$

$r = 9.55 \div 2 = 4.775 = 4.78$

Then solve for Area: 3. $A = \pi \times r^2$
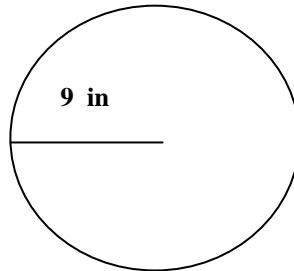
$A = 3.14 \times 4.78 \times 4.78$

$A = 71.743 = 71.74 \text{ units}^2$
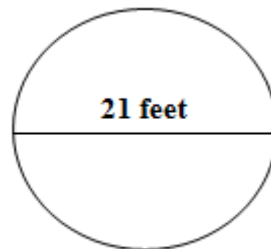
YOU TRY:

#1: Find the Area

9 in

Write the formula: $A = \pi \times r^2$

Sub in values: $A =$

Solve: $A =$

#2: Find the Area

21 feet
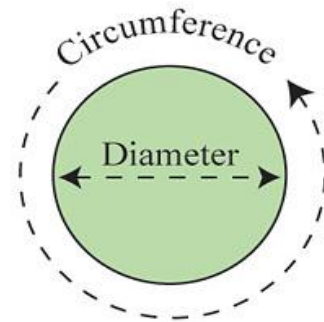
Write the formula:

Sub in values:

Solve:

#3: Find the Area:

      **Circumference is 78.5 yards.

      **REMEMBER to find the diameter first, then the radius second, then the Area.

Solve for diameter: 1. $d = c \div \pi$

Then, solve for radius: 2. $r =$

Then solve for Area: 3. $A = \pi \times r^2$

                  $A =$

                  $A =$