

LESSON **Interactive Study Guide**
8-6 **Area of Circles**

The formula for the area of a circle is $A = \pi r^2$.

Finding the Area of a Circle

Find the area of each circle to the nearest tenth. Use 3.14 for π .

A. What is the formula for the area of a circle? _____

Are you given the radius or diameter? _____

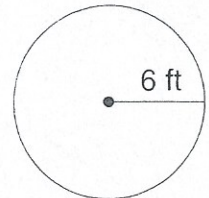
What is its length? _____

Substitute into the formula. $A = \pi r^2$

$$A = \pi \cdot \text{_____}^2$$

$$A = \text{_____} \quad \text{Multiply by 3.14.}$$

$$A \approx \text{_____}$$



The area of the circle is about _____.

B. Are you given the radius or diameter? _____

What is its length? _____

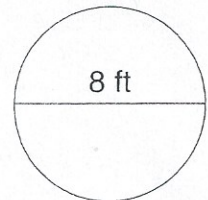
What is the length of the radius? _____

Substitute into the formula. $A = \pi r^2$

$$A = \pi \cdot \text{_____}^2$$

$$A = \text{_____} \quad \text{Multiply by 3.14.}$$

$$A \approx \text{_____}$$



The area of the circle, rounded to the nearest tenth is _____.

Application

A local glass manufacturer needs to calculate the area of a circular tabletop. The diameter of the tabletop is 60 inches.

What is the diameter of the tabletop? _____ inches

What is the radius of the table top? _____ inches

Substitute into the formula. $A = \pi r^2$

$$A = \pi(\text{_____})^2$$

$$A = \text{_____}$$

$$A \approx \text{_____}$$

He would need to manufacture _____ of glass.