

SECTION
10A

Ready to Go On? Skills Intervention

10-5 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 as an estimate for π .

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

Are you given the radius or diameter? _____

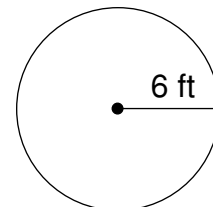
What is its length? _____

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? _____

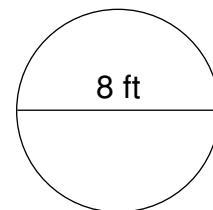
What is the length of the radius? _____

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 _____.

Measurement Application

A local glass manufacturer needs to calculate the area of a circular tabletop to make a piece of glass to fit on top. The diameter of the tabletop is 60 inches. (Use 3.14 as an estimate for π .)

What is the diameter of the tabletop? _____ inches

What is the radius of the tabletop? _____ 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 to cover the tabletop.

SECTION 10A **Ready to Go On? Problem Solving Intervention**
10-5 Area of Circles

What percent of the basketball court do the shaded regions cover?

Understand the Problem

1. If $\frac{1}{10}$ of the court were shaded, what percent would that be?

Make a Plan

2. If you knew the total area of the court and the combined area of the shaded regions, how would you solve the problem?

3. How can you find the area of the two shaded circles?

4. How can you subtract to find the area of the shaded ring?

Solve

5. What is the area of each shaded circle? Use 3.14 as an estimate for π .

6. What is the area of the shaded ring?

7. What is the area of the shaded regions? Of the entire court?

8. What percent of the court is shaded?

Check

9. Estimate to see if your answer is reasonable.

