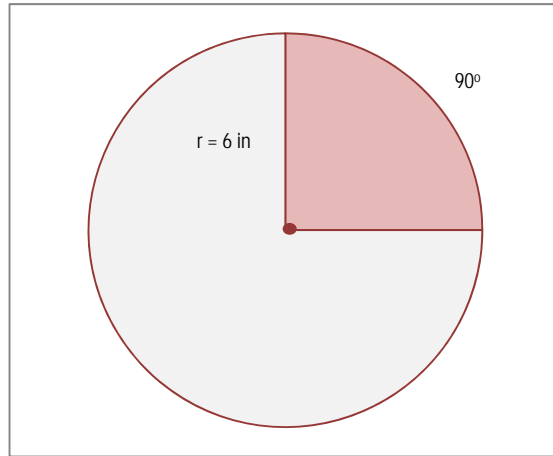


Name _____

Date _____

Measurements of Arcs - Step-by-Step Lesson

The radius of a circle is 6 inches. What is the length of 90° arc?

**Explanation:**

The formula for the length of an arc is $I = \frac{m}{360} \times C$

Where I is the arc length, C is the circumference, and m is the measure of the arc in degrees.

Start with finding the circumference.

$$C = 2\pi r \qquad C = 2\pi(6) \qquad C = 12\pi$$

The circumference is 12π feet.

Step 3) Now, find the length of the arc.

$$I = \frac{m}{360} \times C$$

$$I = \frac{90}{360} \times 12\pi$$

$$I = 3\pi$$

The length of the arc is 3π inches.

