

SECTION
10A

Ready to Go On? Skills Intervention

10-2 Circles and Circumference

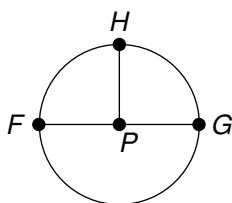
A **circle** is the set of all points in a plane that are the same distance from a given point, called the **center**. A line segment with one endpoint at the center of the circle and the other endpoint on the circle is a **radius** (plural: **radii**). A line segment that passes through the center of the circle and has both endpoints on the circle is a **diameter**.

Vocabulary

center
circle
diameter
radius (radii)

Naming the Parts of a Circle

Name the circle, a diameter, and three radii.



What is the name of the circle?

Name a diameter on the circle.

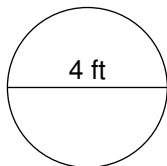
Name three radii of the circle.

_____, _____, _____

Using the Formula for the Circumference of a Circle

Find the missing value to the nearest hundredth. Use 3.14 as an estimate for π .

A. $d = 4$ ft; $C = ?$



$C =$ _____

$C \approx$ _____ \times _____

$C \approx$ _____

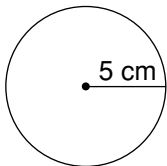
What formula will you use?

What will you replace π and d with?

Multiply.

Find the circumference of the circle. Use 3.14 as an estimate for π .

B. $r = 5$ cm; $C = ?$



$C =$ _____

$r =$ _____

$C \approx$ _____ \cdot _____ \cdot _____

$C \approx 3.14 \cdot$ _____

$C \approx$ _____

What formula will you use?

What is r equal to?

What will you replace π and r with?

Simplify.

Multiply.

SECTION
10A

Ready to Go On? Problem Solving Intervention

10-2 Circles and Circumference

You have enough material for a 314-foot fence. If you use it all to make a circular pen, what will be the radius of the pen in feet?

Understand the Problem

1. What plane figure will the fence form? What measurement of that figure do you know?

Make a Plan

2. How can you use the circumference formula to find the radius?

Solve

3. Use the formula for circumference to find the radius of the circular pen. Use 3.14 as an estimate for π .

Check

4. Start with the value you found for r . Then use 3 for π to estimate the circumference. Are your estimates reasonably close to your original calculations?

Solve

5. What would be the radius of the pen if you had half the amount of fencing? Use 3.14 as an estimate for π .
