

Name: _____

Lesson Guide

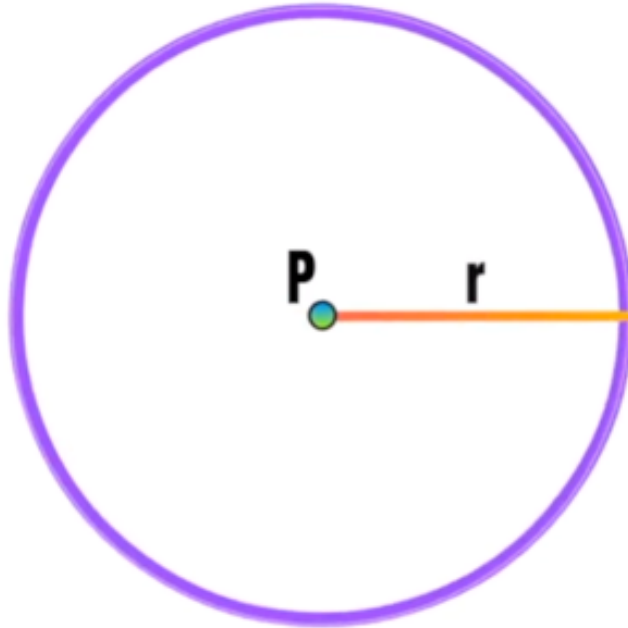
This lesson guide accompanies the following video lesson:

standard form equation

$$(x - h)^2 + (y - k)^2 = r^2$$

The Standard Equation of a Circle

Quick Review of a Circle

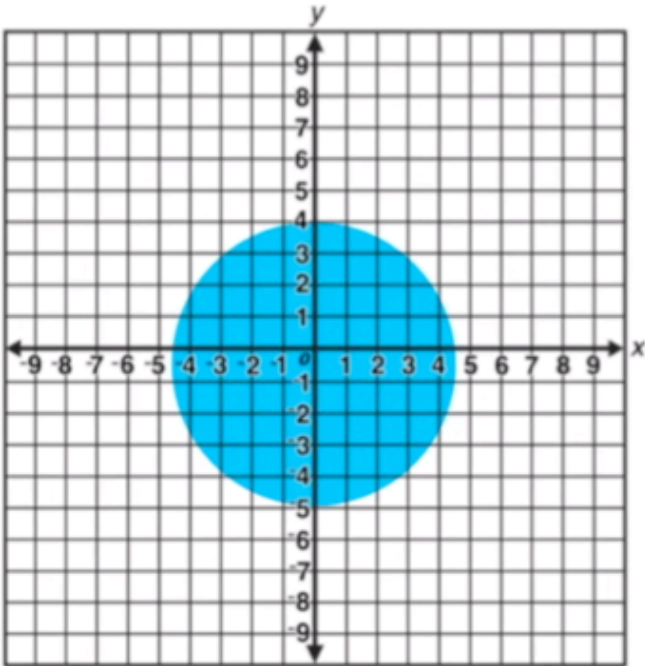


Point P is the _____ of the circle.

Length r is the _____ of the circle.

The _____ of a circle is equal to twice the measure of its radius.

Key Information:



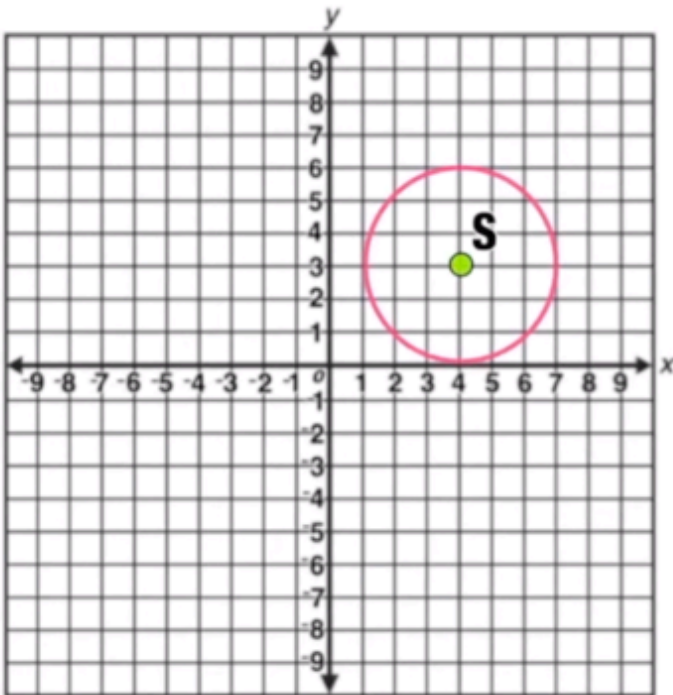
standard form equation

$$(x - h)^2 + (y - k)^2 = r^2$$

Center

Radius **r**

> Example 01



Write the standard form equation for circle S with a center at (4,3).

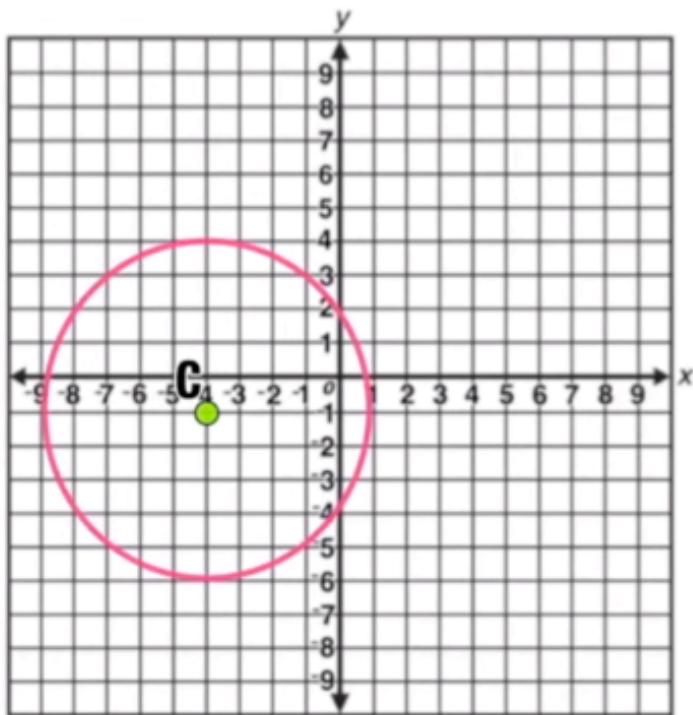
$$(x - h)^2 + (y - k)^2 = r^2$$

Center

Radius

Standard Form Equation of Circle S: _____

> **Example 02**

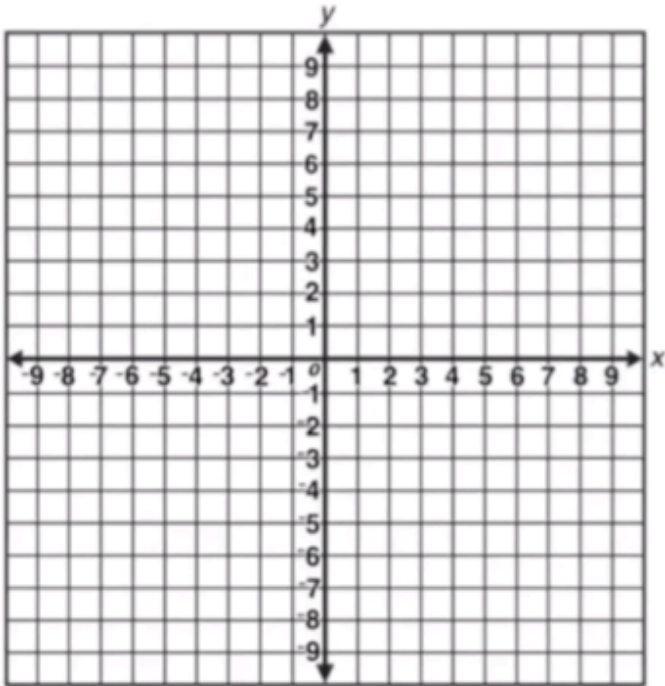


Write the standard form equation for **circle C** with a **center at (-4,-1)**.

$$(x - h)^2 + (y - k)^2 = r^2$$

Standard Form Equation of Circle C: _____

> Example 03



Write the standard form equation for circle J with a center at the origin and a diameter of 18.

Standard Form Equation of Circle J: _____

> Example 04

Identify the center and radius of Circle P with a standard graphing equation:

$$(x - 7)^2 + y^2 = 196$$

The center of circle P is _____ and the radius is _____.

Answer Key

Example #1: $(x - 4)^2 + (y - 3)^2 = 9$

Example #2: $(x + 4)^2 + (y + 1)^2 = 25$

Example #3: $x^2 + y^2 = 81$

Example #4: Center: (7,0), Radius: 14