The Equation of a Circle
Preliminaries and Objectives

Preliminaries

• Pythagorean Theorem

Objectives

• Write the equation of a circle from a geometric description
Find the equation of a circle with center at \((2, 4)\) and radius 3.
Example 1

Find the equation of a circle with center at \((2, 4)\) and radius 3.

Find the set of all points whose distance from \((2, 4)\) is 3.
Example 1

The Equation of a Circle
Example 1

\[(x - 2)^2 + (y - 4)^2 = 3^2\]
Find the equation of a circle with center at \((h, k)\) and radius \(r\)

\[(x - h)^2 + (y - k)^2 = r^2\]