

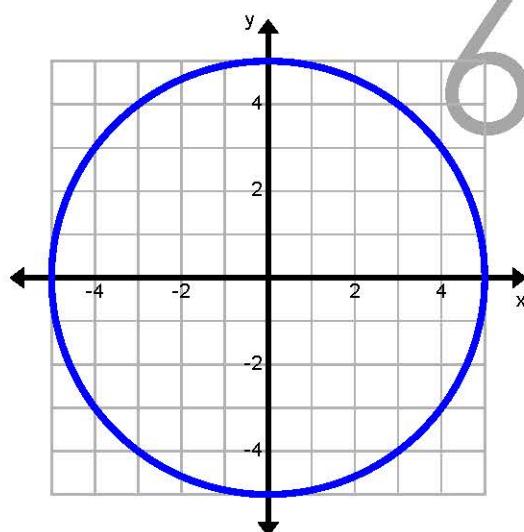
### Definition of a Circle

A **circle** is the set of all points in a plane that are equidistant from a fixed point, called the **center**. The fixed distance from the circle's center to any point on the circle is called the **radius**.

### The Standard Form of the Equation of a Circle

The **standard form of the equation of a circle** with center  $(h, k)$  and radius  $r$  is

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



Example 3: Write the standard form of the equation of the circle with the given center and radius.