

Standard Form of a Circle

with center (h,k)

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

Write the equation of a circle with following centers and radii.

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

Center = $(1, -2)$

Radius = 7

Center = $(4, 0)$

Radius = 2

Center = $(-1, 5)$ Radius = $3\sqrt{2}$

Given the equation of a circle, label h , k , and r .

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

$$(x - 4)^2 + (y + 1)^2 = 25 \quad (x + 3)^2 + y^2 = 1 \quad (x + 2)^2 + (y - 8)^2 = 16 \quad x^2 + (y - 6)^2 = 48$$

Graph the following circle.

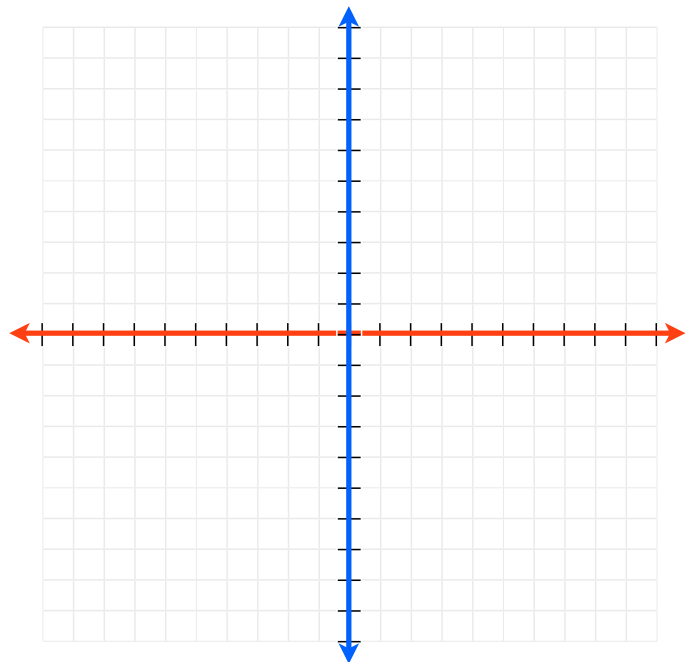
$$(x - 1)^2 + (y + 4)^2 = 25$$

Center

Radius

Domain

Range



Graph the following circle.

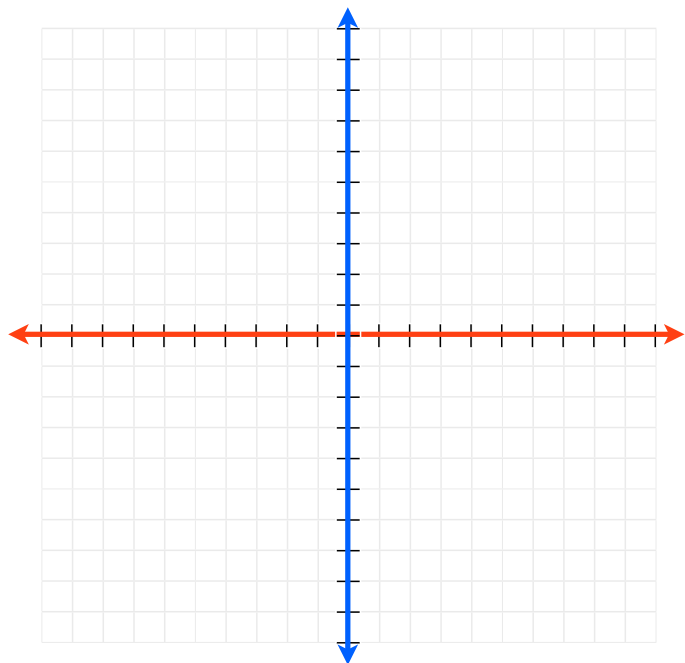
$$x^2 + (y + 1)^2 = 81$$

Center

Radius

Domain

Range



Write the equation of a circle with center at $(-2, -1)$ that passes through point $(2, 2)$.

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

