

Circles

- A circle is a set of points that are equidistant from the _____.
- The segment that goes from the center to a point on the circle is called the _____.
- The segment that goes from one point on the circle to another point on the circle and crosses over the center is called the _____.

Distance formula:

Example of when you might use this:

Find the distance between (3, -4) and (-2, -6)

Midpoint formula:

Example of when you might use this:

Find the midpoint of the segment with endpoints at (3, -4) and (-2, -6)

Standard form of a circle:

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

Center :

Radius:

Example:

$$(x - 2)^2 + (y + 5)^2 = 25$$

What is the center of the graph?

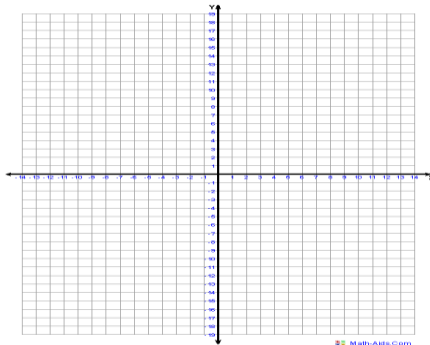
What is the radius of the graph?

Graphing:

$$(x - 2)^2 + (y + 5)^2 = 25$$

Center:

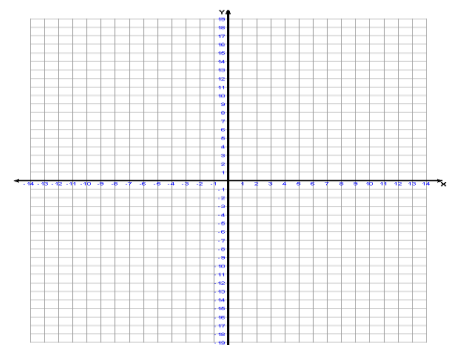
Radius:



$$(x + 2)^2 + y^2 = 9$$

Center:

Radius:



Write the equation of a circle that has a center at (2, 4) and a point on the circle is (3, -5).

Write the equation of a circle that has endpoints of the diameter of (-2, 5) and (1, 3).