

NAME \_\_\_\_\_

QUARTER \_\_\_\_\_

GRADE &amp; SECTION \_\_\_\_\_

DATE \_\_\_\_\_

## Activity: Equation of a Circle

**I.** Write the equation of the circle in standard form given the following details.

1. The center of the circle is  $(6, -2)$  with radius of 6.

**Equation:**  $(x \boxed{\phantom{00}} \boxed{\phantom{00}}) \boxed{\phantom{0}} + (y \boxed{\phantom{00}} \boxed{\phantom{00}}) \boxed{\phantom{0}} = \boxed{\phantom{000}}$

2. The point  $(-16, 13)$  is on the circle with center  $(-16, 14)$ .

**Radius:**  $\boxed{\phantom{00}}$

**Equation:**  $(x \boxed{\phantom{00}} \boxed{\phantom{00}}) \boxed{\phantom{0}} + (y \boxed{\phantom{00}} \boxed{\phantom{00}}) \boxed{\phantom{0}} = \boxed{\phantom{000}}$

3. The diameter of the circle has endpoints  $(-16, -1)$  and  $(0, 11)$ .

**Center:**  $(\boxed{\phantom{00}}, \boxed{\phantom{00}})$

**Radius:**  $\boxed{\phantom{00}}$

**Equation:**  $(x \boxed{\phantom{00}} \boxed{\phantom{00}}) \boxed{\phantom{0}} + (y \boxed{\phantom{00}} \boxed{\phantom{00}}) \boxed{\phantom{0}} = \boxed{\phantom{000}}$

**II.** Determine the center and radius of the circle.

1. The circle has an equation of  $(x - 2)^2 + (y + 1)^2 = 16$ .

**Center:**  $(\boxed{\phantom{00}}, \boxed{\phantom{00}})$

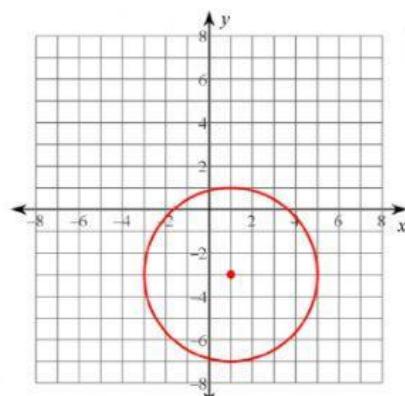
**Radius:**  $\boxed{\phantom{00}}$

2. The circle has an equation of  $x^2 + (y - 2)^2 = 25$ .

**Center:**  $(\boxed{\phantom{00}}, \boxed{\phantom{00}})$

**Radius:**  $\boxed{\phantom{00}}$

3.



**Center:**  $(\boxed{\phantom{00}}, \boxed{\phantom{00}})$

**Radius:**  $\boxed{\phantom{00}}$

How many attempts? \_\_\_\_.  
How well did you do?



Need help!



Just OK!



Splendid

I FEEL THAT...

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