

10.8 Equations of Circles

Date _____ Period _____

Did you know the odds of finding a pearl in an oyster are in 1 in 12,000?

- 1) As you look back at the first 60% of the school year? Are you pleased with your performance? Did you make any strides from last year to this year? Are there still things you would like to improve on?

Use the information provided to write the equation of each circle.

2) Center: $(-4, 0)$
Radius: 4

3) Center: $(14, -6)$
Radius: $\sqrt{2}$

4) Center: $(11, 0)$
Point on Circle: $(11, 1)$

5) Three points on the circle:
 $(-11, -4)$, $(2, -7)$, and $(-8, 9)$

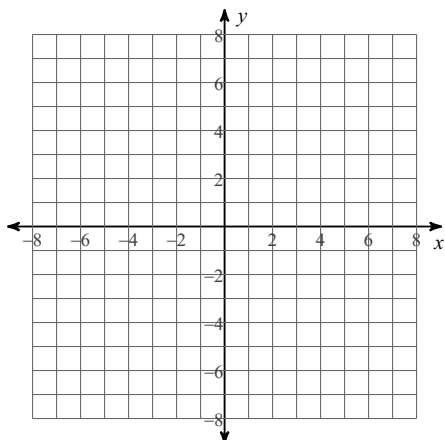
Identify the center and radius of each.

6) $(x + 15)^2 + (y + 1)^2 = 1$

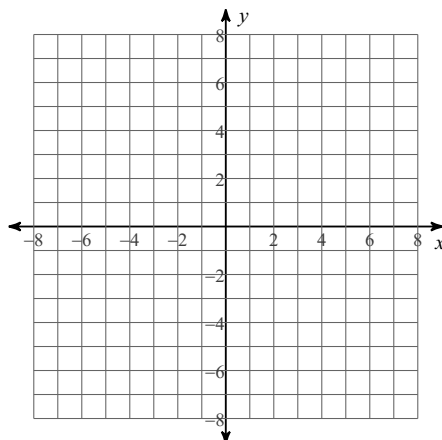
7) $(x - 10)^2 + (y + 3)^2 = 33$

Identify the center and radius of each. Then sketch the graph.

8) $(x - 3)^2 + (y - 2)^2 = 9$

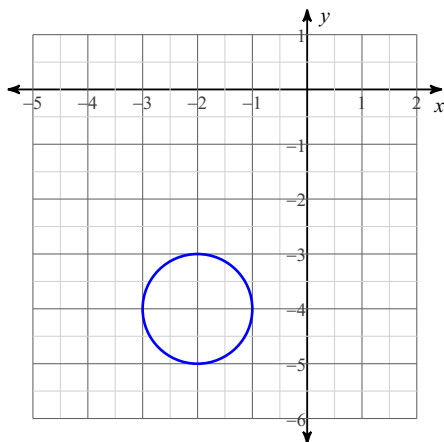


9) $(x + 3)^2 + (y + 4)^2 = 9$

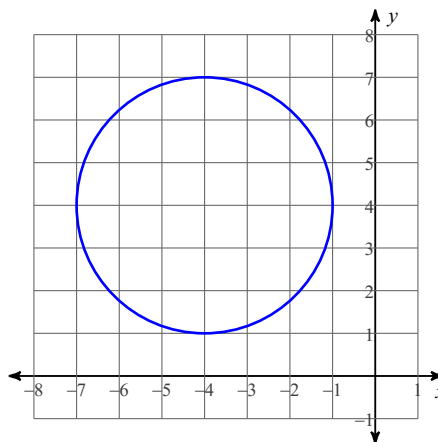


Use the information provided to write the equation of each circle.

10)



11)



Lesson Take-Aways

12) The h values move the graph _____ when h is _____ and _____ when h is _____

The k values move the graph _____ when h is _____ and _____ when h is _____

When finding the radius of a circle from the equation you need to take the _____ of the # after the equal sign.

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- 1) As you look back at the first 60% of the school year? Are you pleased with your performance? Did you make any strides from last year to this year? Are there still things you would like to improve on?

Use the information provided to write the equation of each circle.

- 2) Center: $(-4, 0)$
Radius: 4

$$(x + 4)^2 + y^2 = 16$$

- 3) Center: $(14, -6)$
Radius: $\sqrt{2}$

$$(x - 14)^2 + (y + 6)^2 = 2$$

- 4) Center: $(11, 0)$
Point on Circle: $(11, 1)$

$$(x - 11)^2 + y^2 = 1$$

- 5) Three points on the circle:
 $(-11, -4)$, $(2, -7)$, and $(-8, 9)$

$$(x + 3)^2 + (y - 1)^2 = 89$$

Identify the center and radius of each.

6) $(x + 15)^2 + (y + 1)^2 = 1$

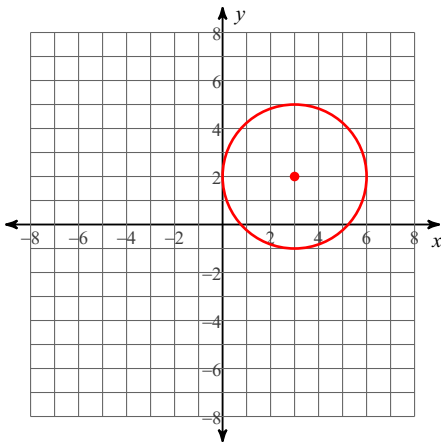
Center: $(-15, -1)$
Radius: 1

7) $(x - 10)^2 + (y + 3)^2 = 33$

Center: $(10, -3)$
Radius: $\sqrt{33}$

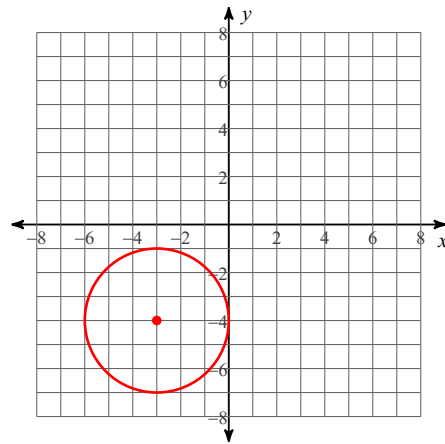
Identify the center and radius of each. Then sketch the graph.

8) $(x - 3)^2 + (y - 2)^2 = 9$



Center: (3, 2)
Radius: 3

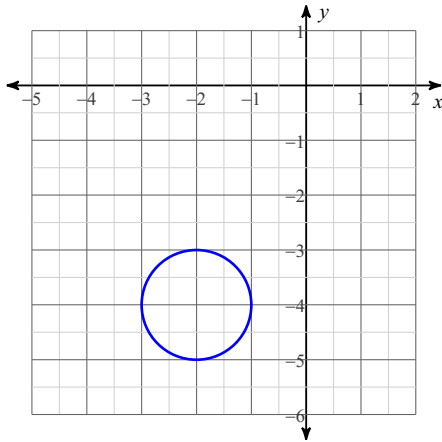
9) $(x + 3)^2 + (y + 4)^2 = 9$



Center: (-3, -4)
Radius: 3

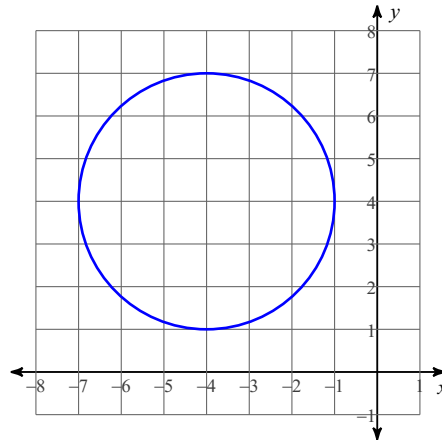
Use the information provided to write the equation of each circle.

10)



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

11)



$(x + 4)^2 + (y - 4)^2 = 9$

Lesson Take-Aways

12) The h values move the graph _____ when h is _____ and _____ when h is _____

The k values move the graph _____ when h is _____ and _____ when h is _____

When finding the radius of a circle from the equation you need to take the _____ of the # after the equal sign.