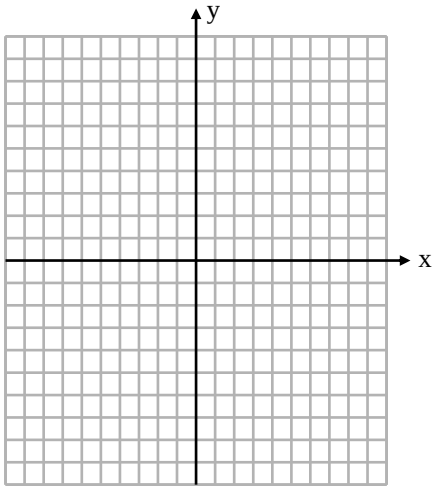
13.2 Equations of Circles
Pre-AP Geometry

Name _____
Period _____ Date _____

1._____ Write the equation of the circle whose center is (0, 0) and radius is $\sqrt{15}$.

2._____ Find the equation of the circle whose endpoints of a diameter are (-7,3) and (1,-7).

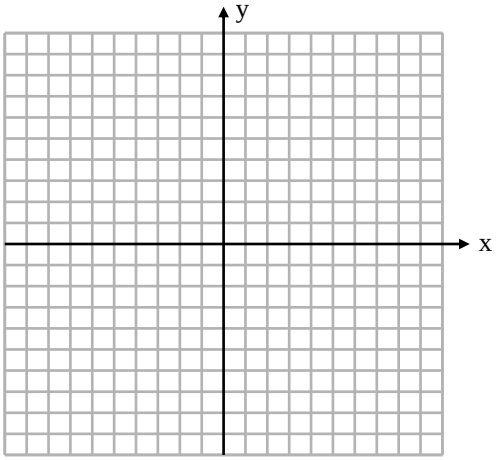


3. Graph the circle: $(x + 3)^2 + (y - 2)^2 = 9$

Identify 4 points (ordered pairs) **on** the circle:

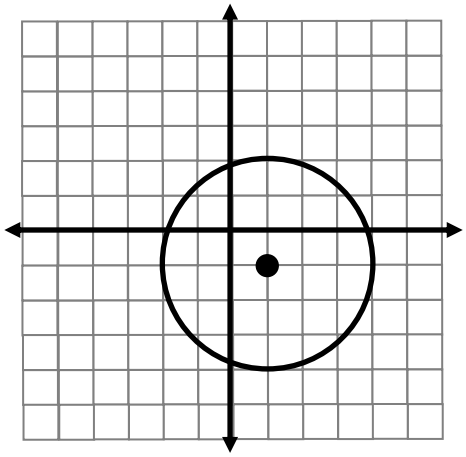
(_____, _____) (_____, _____)

(_____, _____) (_____, _____)



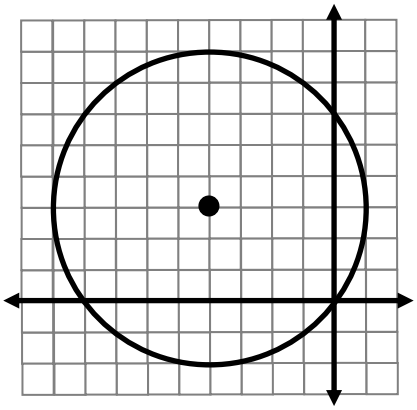
Write the equation of the following circles:

4.



Equation: _____

5.



Equation:_____

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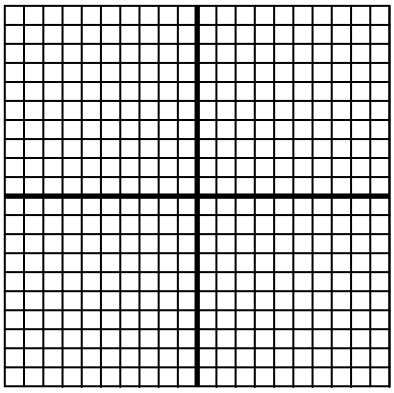
For 6 and 7, Graph the following equations and find the radius and center.

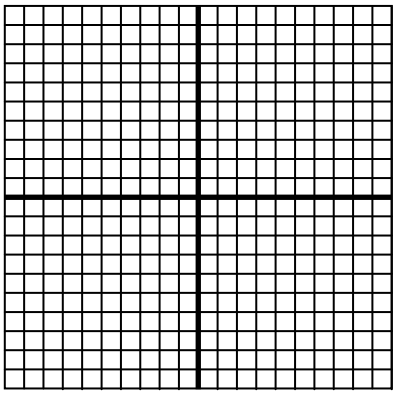
6. $(x + 3)^2 + (y - 2)^2 = 9$



Radius: _____

Center: _____

7. $(x - 4)^2 + (y - 5)^2 = 25$



Radius: _____

Center: _____

For 8-10, complete the square and find the center and radius of each circle.

8. $x^2 + y^2 - 4x + 10y + 20 = 0$

9. $x^2 + y^2 - 2x + 6y + 3 = 0$

10. A circle in the *xy*-plane has the equation:

$$3.5(x + 2.2)^2 + 3.5(y - 11.1)^2 - 21 = 0$$

What is the radius of the circle?