

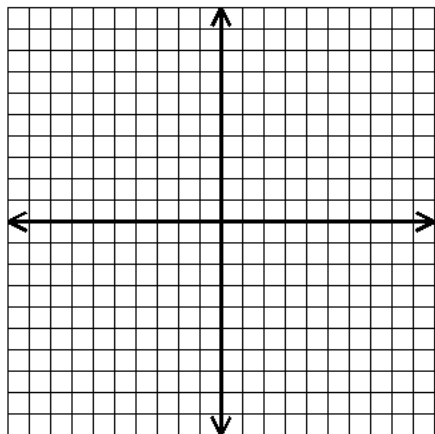
NAME _____ DATE _____ PER. _____

CIRCLES IN THE COORDINATE PLANE

Graph each circle below.

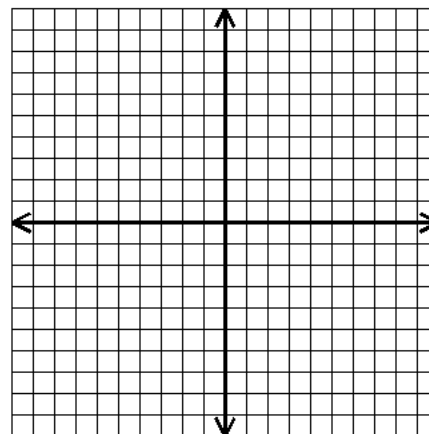
1. $x^2 + y^2 = 49$

center: _____ radius: _____



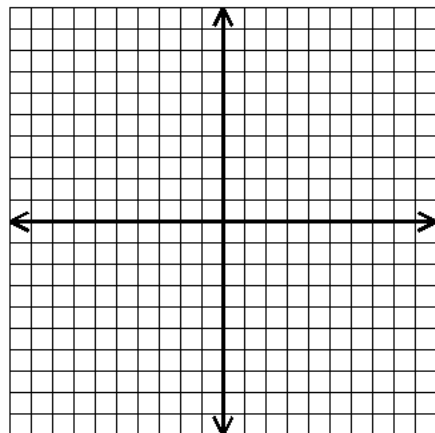
2. $3x^2 + 3y^2 = 48$

center: _____ radius: _____



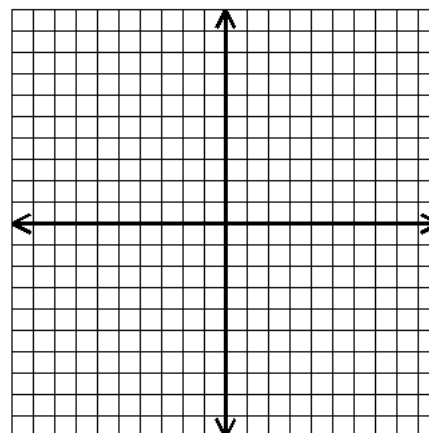
3. $(x - 2)^2 + (y - 4)^2 = 36$

center: _____ radius: _____



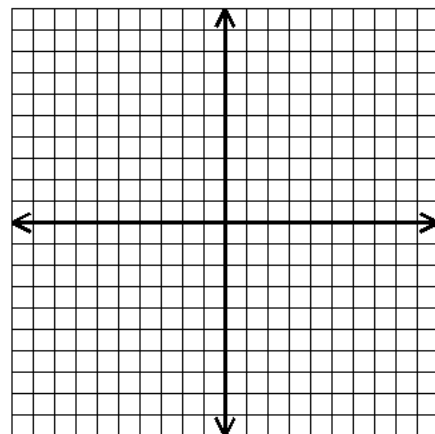
4. $x^2 + (y + 5)^2 = 1$

center: _____ radius: _____



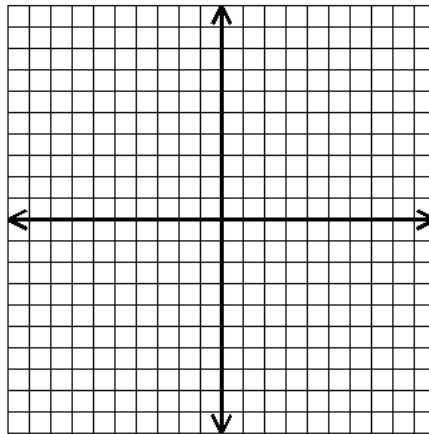
5. $(x + 4)^2 + (y - 3)^2 = 7$

center: _____ radius: _____



6. $2(x - 3)^2 + 2(y + 1)^2 = 20$

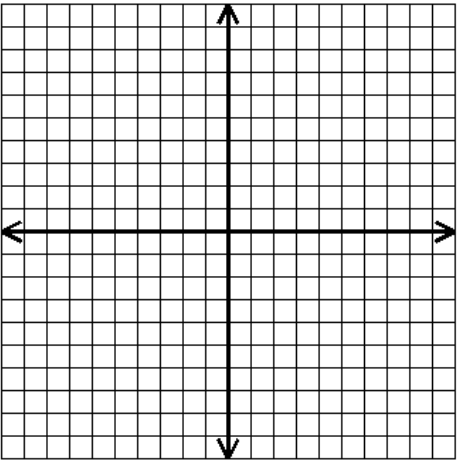
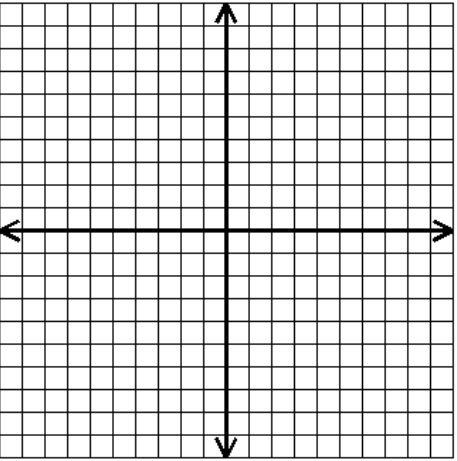
center: _____ radius: _____

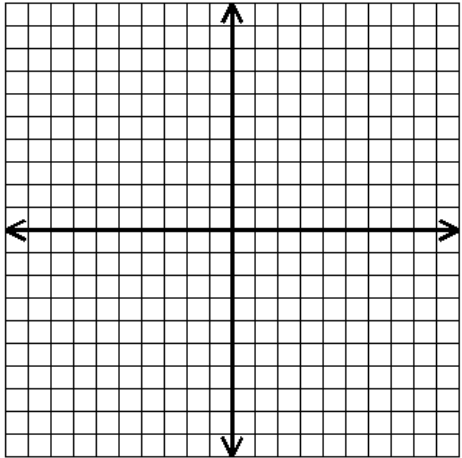


Write the equations of the following circles.

7. _____	Center at (2, 5) radius of 4.
8. _____	Center at (-4, 2) radius of $\sqrt{14}$.
9. _____	Center at (-1, -6) radius of 7.
10. _____	Center at (7, -3) radius of $3\sqrt{2}$.
11. _____	Center at (0, 0) radius of 3.

Find the center & radius of each circle then graph

<p>12. center: _____</p> <p>r = _____</p>	$(x + 2)^2 + (y - 7)^2 = 9$	
<p>13. center: _____</p> <p>r = _____</p>	$(x - 8)^2 + (y + 5)^2 = 7$	

<p>14. center: _____</p> <p>$r =$ _____</p>	<p>circle with center $(-1, 3)$ that passes through $(2, -1)$</p> 
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Determine whether each statement is true or false. If false explain why.

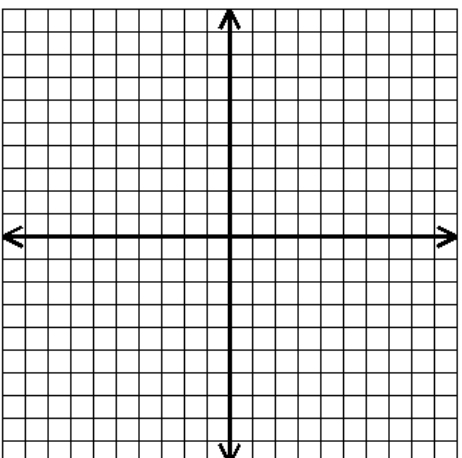
15. The circle $x^2 + y^2 = 7$ has a radius of 7.

16. The circle $(x - 2)^2 + (y + 3)^2 = 9$ passes through the point $(-1, -3)$.

17. The center of the circle $(x - 6)^2 + (y + 4)^2 = 1$ lies in the second quadrant.

18. The equation of the circle centered at the origin with diameter 6 is $x^2 + y^2 = 36$.

Find the equation of the tangent line at the point of tangency for the following.

<p>19. _____</p>	<p>At $(3, 0)$ for the circle in #11</p> 
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20. _____

At (2, 10) for the circle in #3

