Name _____ Class _____ Date _____

Practice 12-5

Circles in the Coordinate Plane

Find the center and radius of each circle.

1. $x^2 + y^2 = 36$

2. $(x - 2)^2 + (y - 7)^2 = 49$

3. $(x + 1)^2 + (y + 6)^2 = 16$

4. $(x + 3)^2 + (y - 11)^2 = 12$

Write the standard equation of each circle.

5. center (0, 0); $r = 7$

6. center (4, 3); $r = 8$

7. center (5, 3); $r = 2$

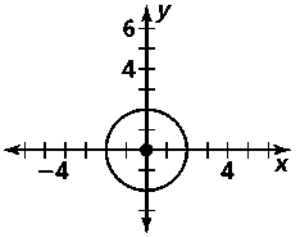
8. center (–5, 4); $r = \frac{1}{2}$

9. center (–2, –5); $r = \sqrt{2}$

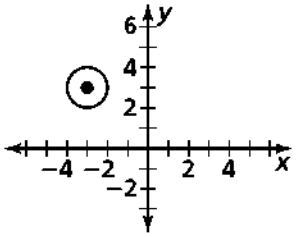
10. center (–1, 6); $r = \sqrt{5}$

Write an equation for each circle.

11.



12.



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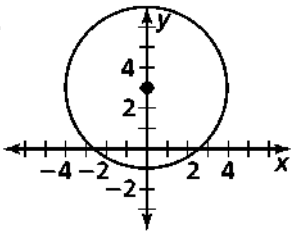

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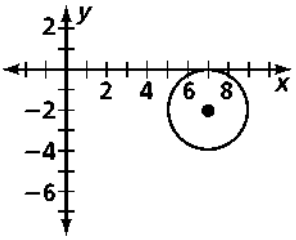

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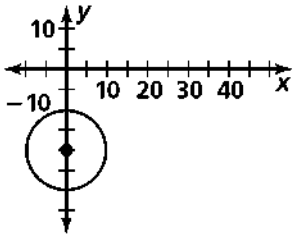

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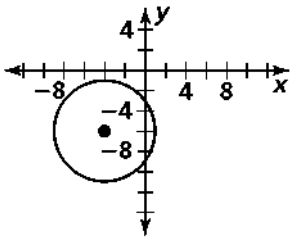


Graph each circle. Label its center, and state its radius.

17. $x^2 + y^2 = 25$

18. $(x - 3)^2 + (y - 5)^2 = 9$

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

20. $(x + 1)^2 + (y - 1)^2 = 36$

Write an equation for each circle with the given center that passes through the given point.

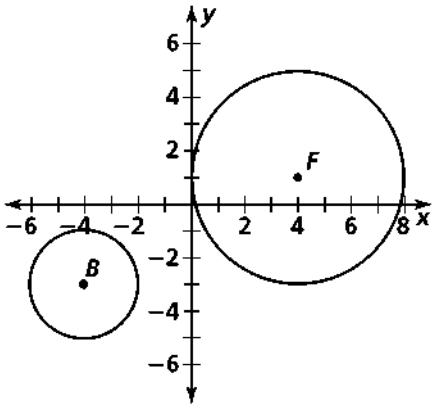
21. center (0, 0); point (3, 4)

22. center (5, 9); point (2, 9)

23. center (–4, –3); point (2, 2)

24. center (7, –2); point (–1, –6)

Write an equation that describes the position and range of each circle.

25. $\odot B$

26. $\odot F$