Name _____ Class _____ Date _____

Practice 12-5

Circles in the Coordinate Plane

Find the center and radius of each circle.

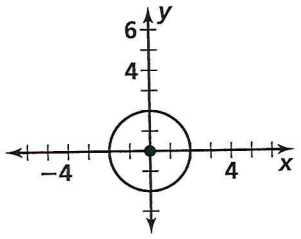
1. $x^2 + y^2 = 36$
2. $(x - 2)^2 + (y - 7)^2 = 49$
3. $(x + 1)^2 + (y + 6)^2 = 16$
4. $(x + 3)^2 + (y - 11)^2 = 12$

Write the standard equation of each circle.

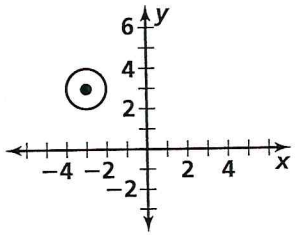
5. center $(0, 0)$; $r = 7$
6. center $(4, 3)$; $r = 8$
7. center $(5, 3)$; $r = 2$
8. center $(-5, 4)$; $r = \frac{1}{2}$
9. center $(-2, -5)$; $r = \sqrt{2}$
10. center $(-1, 6)$; $r = \sqrt{5}$

Write an equation for each circle.

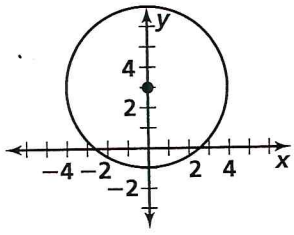
11.



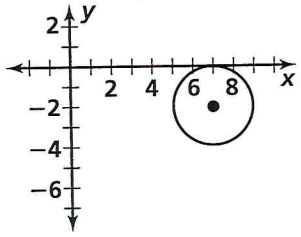
12.



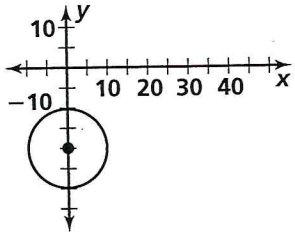
13.



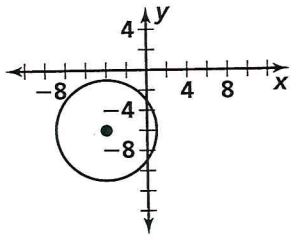
14.



15.



16.



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. $\odot F$