

# Practice 11-5

## Circles in the Coordinate Plane

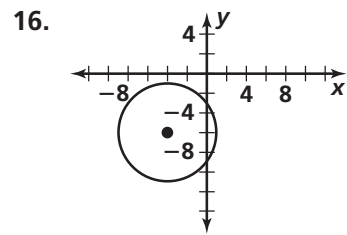
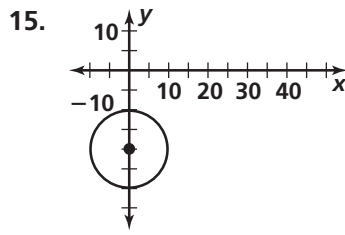
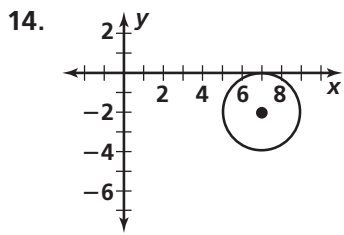
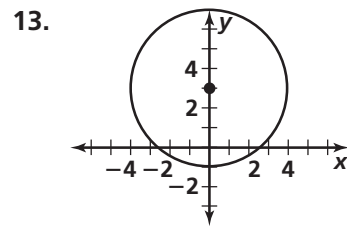
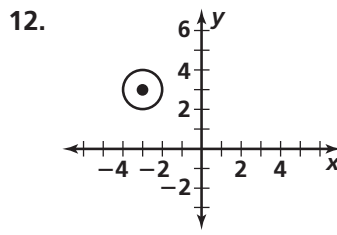
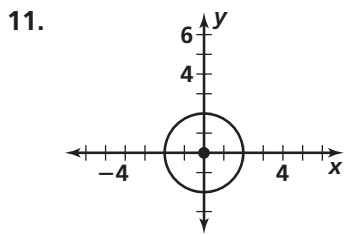
Find the center and radius of each circle.

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.



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.  $\odot F$

