

Practice B

For use with pages 636–640

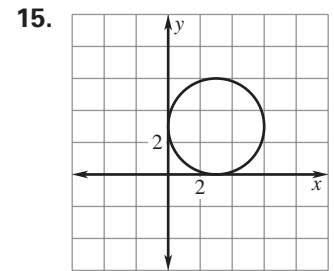
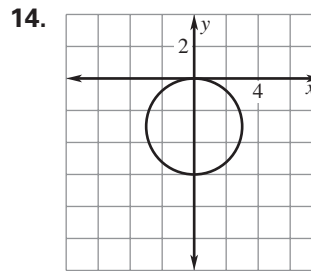
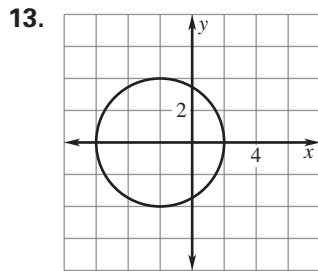
Match the equation of a circle with its description.

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|---------------------------------|---------------------------------|
| 1. $(x + 2)^2 + (y + 3)^2 = 4$ | A. center $(-3, 5)$, radius 4 |
| 2. $(x - 2)^2 + (y + 5)^2 = 9$ | B. center $(-2, -3)$, radius 3 |
| 3. $(x + 3)^2 + (y - 5)^2 = 16$ | C. center $(-2, -3)$, radius 2 |
| 4. $(x + 2)^2 + (y + 3)^2 = 9$ | D. center $(2, 5)$, radius 3 |
| 5. $(x - 3)^2 + (y + 5)^2 = 16$ | E. center $(3, -5)$, radius 4 |
| 6. $(x - 2)^2 + (y - 5)^2 = 9$ | F. center $(2, -5)$, radius 3 |

Give the center and radius of the circle.

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|----------------------------------|----------------------------------|
| 7. $(x - 4)^2 + (y + 2)^2 = 25$ | 8. $(x + 2)^2 + (y + 4)^2 = 9$ |
| 9. $(x - 5)^2 + (y - 3)^2 = 16$ | 10. $(x + 6)^2 + (y - 4)^2 = 4$ |
| 11. $(x - 5)^2 + (y - 6)^2 = 36$ | 12. $(x + 3)^2 + (y - 4)^2 = 16$ |

Give the coordinates of the center, the radius, and the equation of the circle.



Write the standard equation of the circle with the given center and radius.

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|---------------------------------|----------------------------------|
| 16. center $(0, 0)$, radius 1 | 17. center $(0, 4)$, radius 4 |
| 18. center $(-4, 2)$, radius 3 | 19. center $(-3, -5)$, radius 5 |

The equation of a circle is $(x - 4)^2 + (y - 2)^2 = 9$. Tell whether each point is *on* the circle, in the *interior* of the circle, or in the *exterior* of the circle.

- | | | |
|--------------|--------------|---------------|
| 20. $(5, 1)$ | 21. $(8, 2)$ | 22. $(1, 2)$ |
| 23. $(4, 5)$ | 24. $(0, 2)$ | 25. $(4, -2)$ |