

Practice C

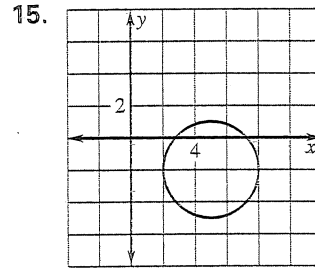
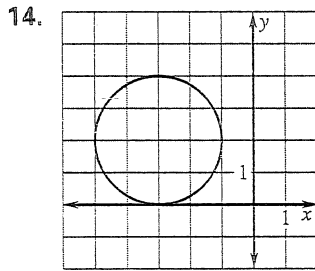
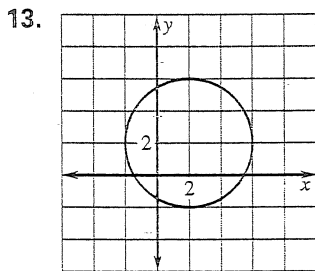
For use with pages 636–640

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

Give the center and radius of the circle.

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|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 7. $(x - 3)^2 + (y + 5)^2 = 36$ | 8. $(x + 4)^2 + (y + 2)^2 = 81$ |
| 9. $(x - 9)^2 + (y - 5)^2 = 40$ | 10. $(x + 1.5)^2 + (y - 3.8)^2 = 1.44$ |
| 11. $\left(x - \frac{1}{2}\right)^2 + \left(y - \frac{3}{4}\right)^2 = \frac{4}{9}$ | 12. $\left(x + \frac{3}{5}\right)^2 + \left(y - \frac{1}{10}\right)^2 = \frac{9}{25}$ |

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 $(0, 4)$, radius 5 | 17. center $(-3, 6)$, radius 7 |
| 18. center $(4.2, 2.6)$, radius 3.5 | 19. center $\left(\frac{7}{2}, \frac{5}{2}\right)$, radius 2 |

Graph the equation.

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|----------------------------------|----------------------------------|
| 20. $(x - 3)^2 + (y + 4)^2 = 16$ | 21. $(x + 5)^2 + (y - 7)^2 = 25$ |
|----------------------------------|----------------------------------|

Graph the circle $(x - 4)^2 + (y + 2)^2 = 16$ and the line having the given equation. Determine whether the line is a tangent or a secant. Explain.

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| 22. $y = x - 2$ | 23. $y = 2$ | 24. $y = -x + 6$ |
|-----------------|-------------|------------------|