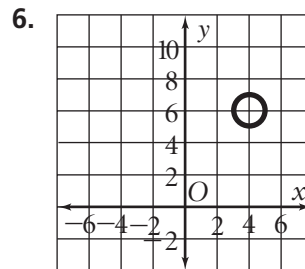
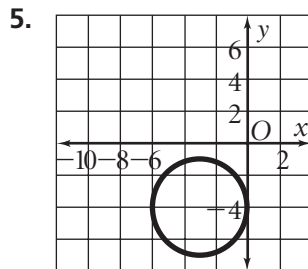
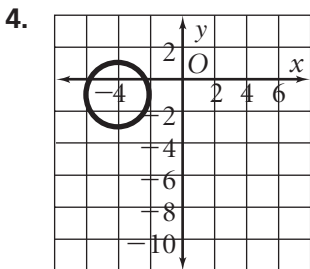
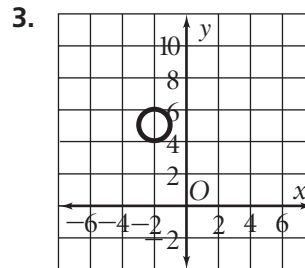
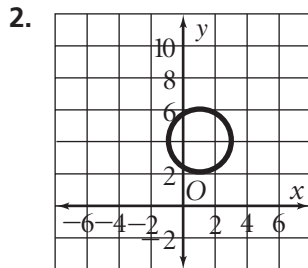
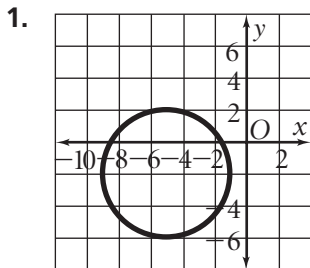


Practice 10-3

Circles

Write an equation in standard form for each circle.



Write an equation of a circle with the given center and radius. Check your answers.

- | | |
|--------------------------------|--------------------------------|
| 7. center (0, 0), radius 3 | 8. center (0, 1), radius 2 |
| 9. center (-1, 0), radius 6 | 10. center (2, 0), radius 1 |
| 11. center (0, -3), radius 5 | 12. center (4, -4), radius 1.5 |
| 13. center (-2, 6), radius 4 | 14. center (5, -1), radius 1.1 |
| 15. center (1, -5), radius 2.5 | 16. center (2, 3), diameter 1 |

Write an equation for each translation.

- | | |
|--|--|
| 17. $x^2 + y^2 = 9$; right 4 and down 2 | 18. $x^2 + y^2 = 12$; left 2 and up 5 |
| 19. $x^2 + y^2 = 49$; right 1 and up 7 | 20. $x^2 + y^2 = 1$; right 5 and up 5 |
| 21. $x^2 + y^2 = 25$; up 10 | 22. $x^2 + y^2 = 36$; left 8 and down 6 |

Find the center and radius of each circle.

- | | |
|---------------------------------|---------------------------|
| 23. $(x + 1)^2 + (y - 8)^2 = 1$ | 24. $x^2 + (y + 3)^2 = 9$ |
| 25. $(x + 3)^2 + (y + 1)^2 = 2$ | 26. $(x - 6)^2 + y^2 = 5$ |
| 27. $(x - 6)^2 + (y - 9)^2 = 4$ | 28. $x^2 + y^2 = 144$ |

Use the center and radius to graph each circle.

- | | |
|----------------------------------|----------------------------------|
| 29. $(x + 9)^2 + (y - 2)^2 = 81$ | 30. $x^2 + (y + 3)^2 = 121$ |
| 31. $(x - 8)^2 + (y + 9)^2 = 64$ | 32. $(x + 8)^2 + y^2 = 49$ |
| 33. $(x - 6)^2 + (y - 3)^2 = 75$ | 34. $(x + 9)^2 + (y + 9)^2 = 36$ |
| 35. $(x + 7)^2 + (y + 2)^2 = 80$ | 36. $(x - 5)^2 + (y + 7)^2 = 25$ |