Name _____ Date _____

LESSON 10.7

Practice A

For use with the lesson "Write and Graph Equations of Circles"

Match the equation of a circle with its description.

1. $x^2 + y^2 = 4$	**A.** center $(-1, 4)$, radius 4
2. $x^2 + y^2 = 9$	**B.** center $(-2, -3)$, radius 3
3. $(x + 1)^2 + (y - 4)^2 = 16$	**C.** center $(0, 0)$, 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 $(0, 0)$, radius 3

Give the center and radius of the circle.

7. $x^2 + y^2 = 25$

8. $x^2 + (y - 4)^2 = 9$

9. $(x - 5)^2 + y^2 = 16$

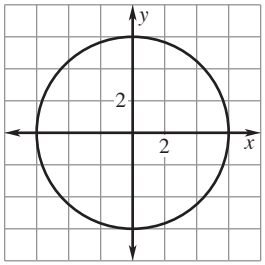
10. $(x + 1)^2 + (y - 1)^2 = 4$

11. $(x - 2)^2 + (y - 4)^2 = 16$

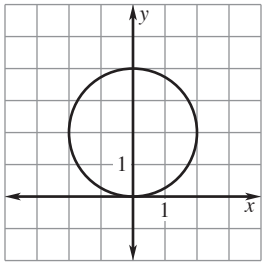
12. $(x + 4)^2 + (y - 2)^2 = 25$

Write the standard equation of the circle.

13.



14.



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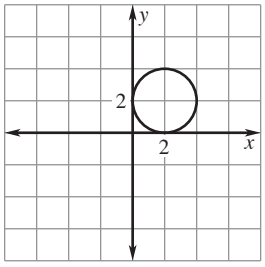
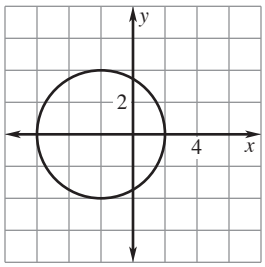


16.



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

17. Center $(0, 0)$, radius 2

18. Center $(0, 3)$, radius 2

19. Center $(2, 0)$, radius 3

20. Center $(5, -6)$, radius 1

21. Center $(0, 9)$, radius 7

22. Center $(-3, 7)$, radius 6

23. Center $(0, 0)$, radius 10

24. Center $(-5, -1)$, radius 8

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Name _____ Date _____

LESSON 10.7

Practice A *continued*

For use with the lesson "Write and Graph Equations of Circles"

Use the given information to write the standard equation of the circle.

25. The center is (0, 0), and a point on the circle is (7, 0).

26. The center is (0, 0), and a point on the circle is (3, 4).

27. The center is (2, 4), and a point on the circle is (2, 7).

28. The center is $(-1, 2)$, and a point on the circle is (2, 6).

Determine the diameter of the circle with the given equation.

29. $x^2 + y^2 = 9$

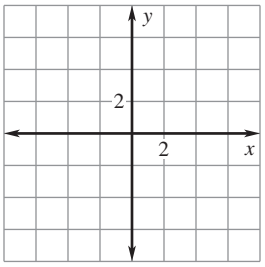
30. $(x + 2)^2 + (y + 1)^2 = 1$

31. $(x - 3)^2 + (y - 5)^2 = 16$

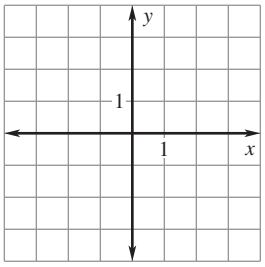
32. $(x + 2)^2 + (y + 4)^2 = 8$

Graph the equation.

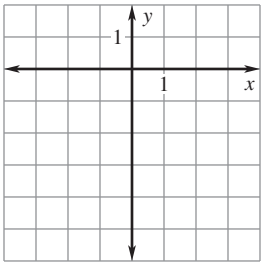
33. $x^2 + y^2 = 25$



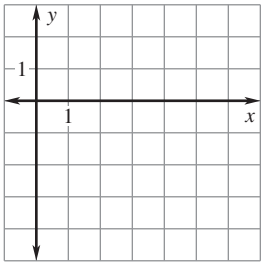
34. $(x - 1)^2 + y^2 = 4$



35. $x^2 + (y + 2)^2 = 9$



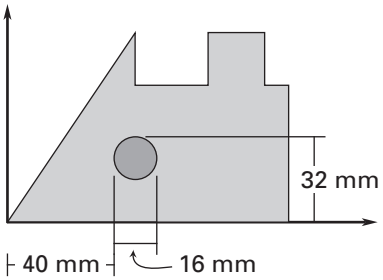
36. $(x - 3)^2 + (y + 1)^2 = 4$



Determine whether the point lies on the circle described by the equation $(x - 2)^2 + (y - 6)^2 = 25$.

37. (2, 6) **38.** (5, 10) **39.** (4, 2) **40.** (6, 9)

41. **Making a Pattern** You are using a math software program to make a pattern for a plastic part. You draw the pattern on a coordinate plane with units in millimeters and the bottom left corner as the origin. Write an equation for the circular hole.



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