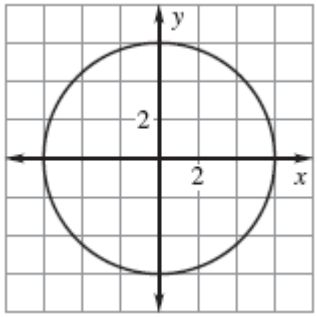
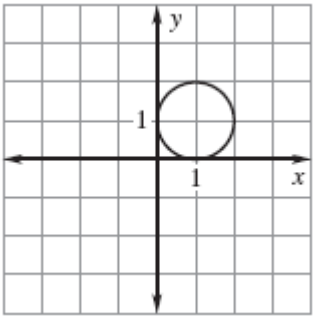
Name _____ **Practice 10.7 Write Equations of Circles**

Write the standard equation of the circle.

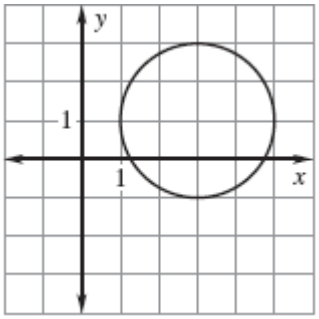
1.



2.



3.



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

4. Center (0, 0), radius 9.

5. Center (1, 3), radius 4.

6. Center (–3, 0), radius 5.

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

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

8. The center is (2, 4), and a point on the circle is (–3, 16).

9. The center is (17, 24), and a point on the circle is (–3, 9).

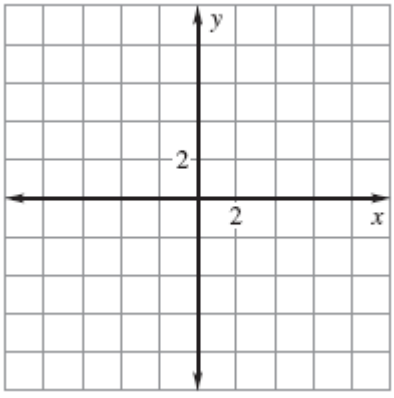
Determine the diameter of the circle with the given equation.

10. $(x - 12)^2 + (y + 5)^2 = 64$

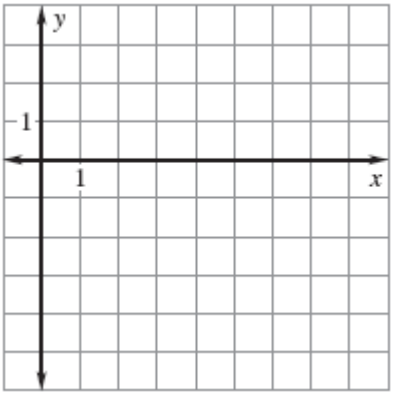
11. $(x - 2)^2 + (y - 9)^2 = 4$

Graph the equation.

12. $x^2 + y^2 = 64$



13. $(x - 4)^2 + (y + 1)^2 = 16$



Determine whether the point lies on the circle described by the equation $(x - 3)^2 + (y - 8)^2 = 100$.

14. (0, 0)

15. (13, 8)

16. (–5, 2)