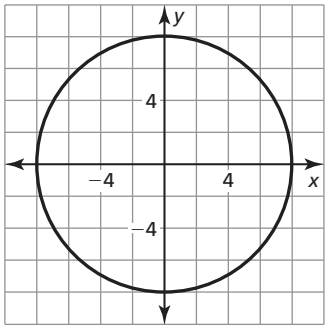
Name_____ Date _____

10.7 Notetaking with Vocabulary (continued)

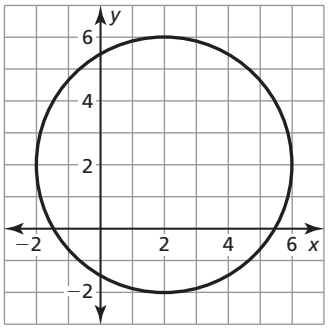
Extra Practice

In Exercises 1–4, write the standard equation of the circle.

1.



2.



3. a circle with center $(0, 0)$ and radius $\frac{1}{3}$

4. a circle with center $(-3, -5)$ and radius 8

In Exercises 5 and 6, use the given information to write the standard equation of the circle.

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

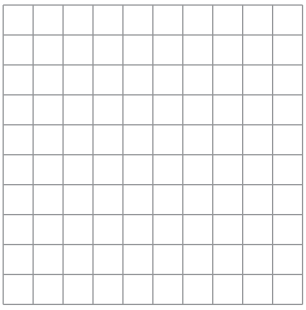
6. The center is $(4, 5)$, and a point on the circle is $(0, 8)$.

Name _____ Date _____

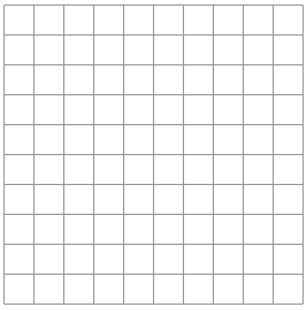
10.7 Notetaking with Vocabulary (continued)

In Exercises 7–10, find the center and radius of the circle. Then graph the circle.

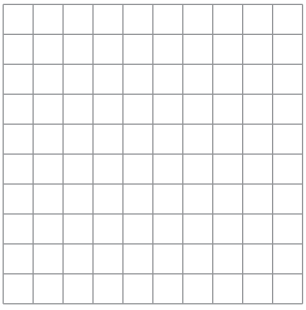
7. $x^2 + y^2 = 225$



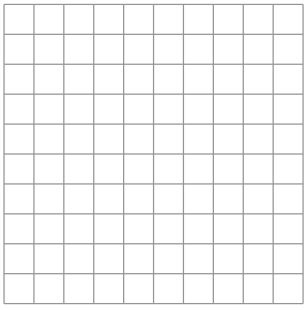
8. $(x - 3)^2 + (y + 2)^2 = 16$



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



10. $x^2 + y^2 - 3x + y = \frac{5}{2}$



In Exercises 11 and 12, prove or disprove the statement.

11. The point $(-4, 4)$ lies on the circle centered at the origin with radius 6.

12. The point $(-1, 2)$ lies on the circle centered at $(-4, -1)$ with radius $3\sqrt{2}$.