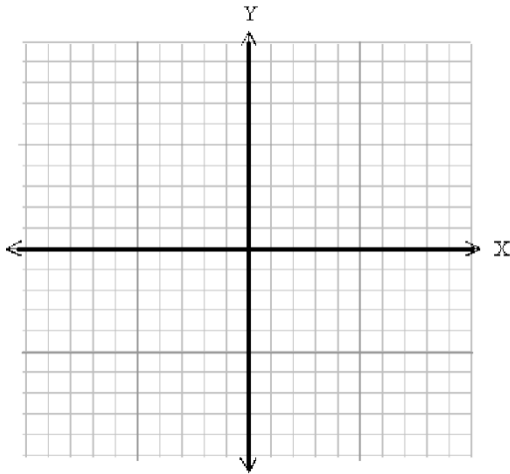


DIRECTIONS: Find an equation of the circle with the given center and radius.

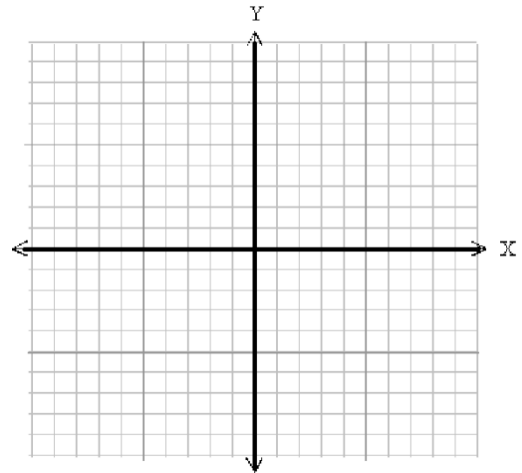
- Center: $(3, 0)$; Radius: 3
- Center: $(0, -1)$; Radius: 1
- Center: $(2, -5)$; Radius: 8
- Center: $(-3, 1)$; Radius: 5
- Center: $(0, 0)$; Radius: 12
- Center: $(-4, -2)$; Radius: 10
- Center: $(6, 1)$; Radius: $\sqrt{2}$
- Center: $(-5, 3)$; Radius: $\frac{1}{6}$

DIRECTIONS: Graph each equation.

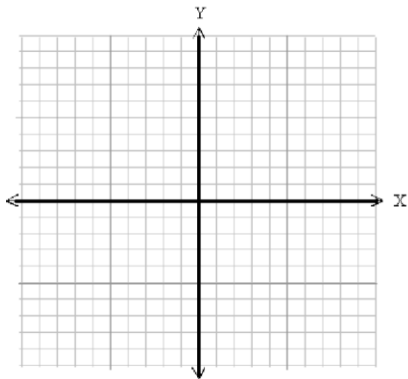
9. $x^2 + y^2 = 4$



10. $(x + 2)^2 + (y + 3)^2 = 81$



11. $x^2 + (y + 6)^2 = 9$



DIRECTIONS: If the graph of the given equation is a circle, find its center and radius. If the equation has no graph, say so.

12. $x^2 + y^2 - 81 = 0$

13. $x^2 + y^2 - 6x = 0$

14. $x^2 + y^2 + 10x - 4y + 20 = 0$

15. $x^2 + y^2 + 12x - 6y = 0$

16. $x^2 + y^2 - 5y + 4 = 0$