

LESSON
10.3**Practice A**

For use with pages 643–651

Write the equation in standard form.

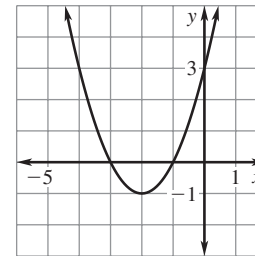
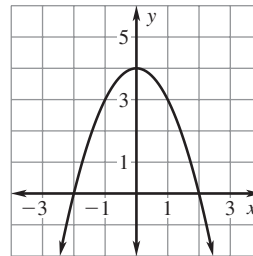
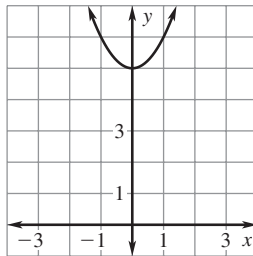
1. $x^2 + 3x = -12$ 2. $x^2 - 8x = 14$ 3. $x^2 = 9x - 1$
 4. $x^2 = 6 - 10x$ 5. $14 - x^2 = 3x$ 6. $\frac{1}{2}x^2 = -3x - 7$

Determine whether the given value is a solution of the equation.

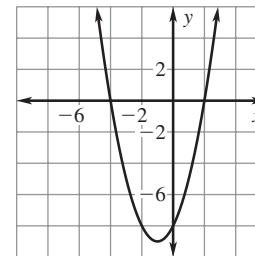
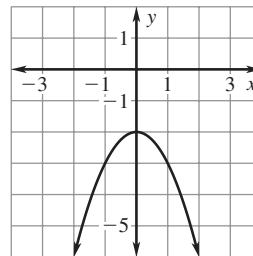
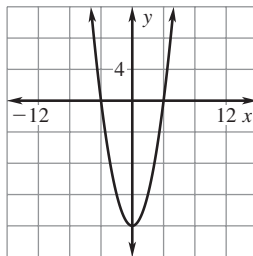
7. $x^2 + 36 = 0$; -6 8. $100 - x^2 = 0$; -10 9. $0 = x^2 + 6x + 5$; -1
 10. $x^2 - 5x + 6 = 0$; 2 11. $-x^2 + 4x - 4 = 0$; 4 12. $0 = -x^2 + 8x + 3$; 8

Use the graph to find the solutions of the given equation.

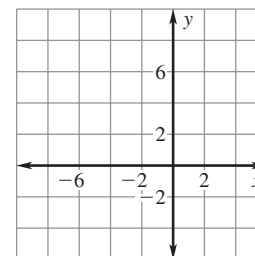
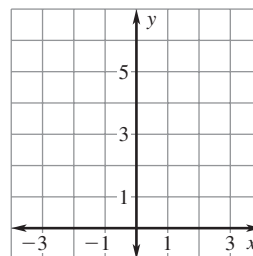
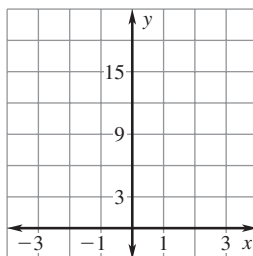
13. $x^2 + 5 = 0$ 14. $-x^2 + 4 = 0$ 15. $x^2 + 4x + 3 = 0$



16. $x^2 - 16 = 0$ 17. $x^2 - 2 = 0$ 18. $x^2 + 2x - 8 = 0$

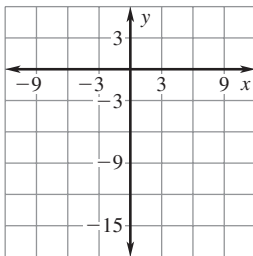
**Solve the equation by graphing.**

19. $8x^2 + 2x + 3 = 0$ 20. $2x^2 + 3x + 1 = 0$ 21. $\frac{1}{2}x^2 + 4x + 6 = 0$

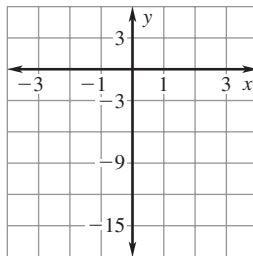


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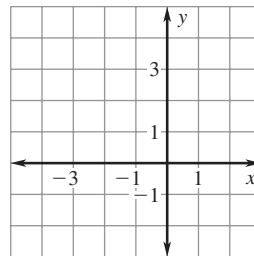
22. $x^2 - 2x - 15 = 0$



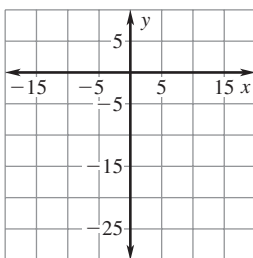
23. $-2x^2 + x - 3 = 0$



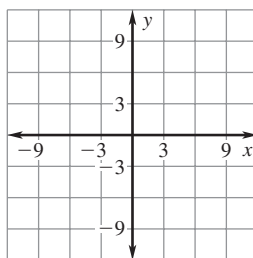
24. $-x^2 - 2x + 3 = 0$


Find the zeros of the function by graphing the function.

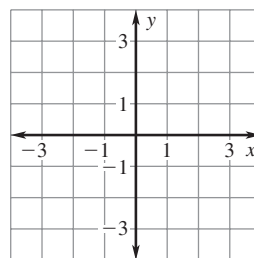
25. $f(x) = x^2 - 25$



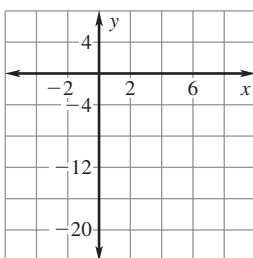
26. $f(x) = -x^2 + 9$



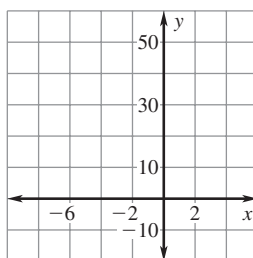
27. $f(x) = 2x^2 + 4x$



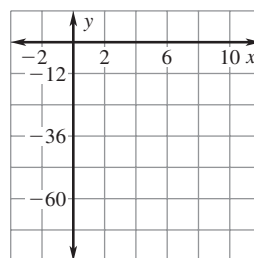
28. $f(x) = x^2 - 4x - 12$



29. $f(x) = -x^2 - 3x + 40$



30. $f(x) = 3x^2 - 30x$



- 31. Plate Cover** A plate cover made of netting has a cross section in the shape of a parabola. The cross section can be modeled by the function $y = -0.1875x^2 + 3x$ where x is the width of the cover (in inches) and y is the height of the cover (in inches).

- Graph the function.
- Find the domain and range of the function in this situation.
- How wide is the cover?
- How tall is the cover?

