## Practice B For use with pages 643-651 10.3

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

1. 
$$x^2 - 2x + 15 = 0$$
: 3

**2.** 
$$x^2 - 4x - 12 = 0$$
; 2

**1.** 
$$x^2 - 2x + 15 = 0$$
; 3 **2.**  $x^2 - 4x - 12 = 0$ ; 2 **3.**  $-x^2 - 5x - 6 = 0$ ; 3

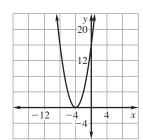
**4.** 
$$x^2 + 3x - 4 = 0$$
; 1

**4.** 
$$x^2 + 3x - 4 = 0$$
; 1 **5.**  $2x^2 + 9x - 5 = 0$ ;  $-2$  **6.**  $3x^2 - 5x - 2 = 0$ ; 2

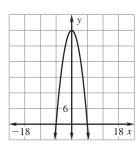
**6.** 
$$3x^2 - 5x - 2 = 0$$
; 2

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

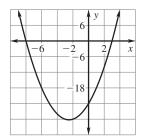
**7.** 
$$x^2 + 8x + 16 = 0$$



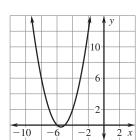
**8.** 
$$-x^2 + 36 = 0$$



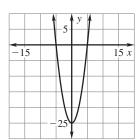
**9.** 
$$x^2 + 5x - 24 = 0$$



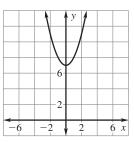
**10.** 
$$x^2 + 11x + 30 = 0$$



**11.** 
$$x^2 - 25 = 0$$

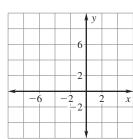


**12.** 
$$x^2 + 7 = 0$$

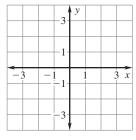


## Solve the equation by graphing.

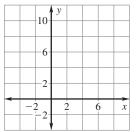
**13.** 
$$-x^2 - 6x = 0$$



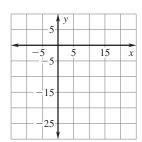
**14.** 
$$2x^2 = 2$$



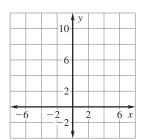
**15.** 
$$x^2 - 7x + 10 = 0$$



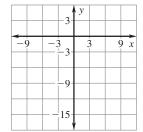
**16.** 
$$x^2 = 10x$$



**17.** 
$$x^2 - 6x + 9 = 0$$



**18.** 
$$-x^2 + 9x = 18$$



LESSON 10.3

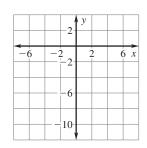
10.3

## Practice B

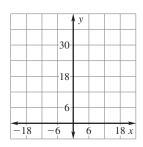
For use with pages 643–651

Find the zeros of the function by graphing.

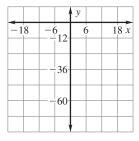
**19.** 
$$f(x) = -x^2 - 5x - 10$$



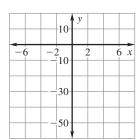
**20.** 
$$f(x) = x^2 + 12x + 36$$



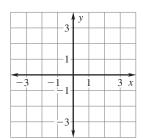
**21.** 
$$f(x) = 2x^2 + 24x$$



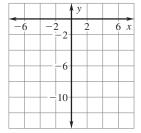
**22.** 
$$f(x) = x^2 - 49$$



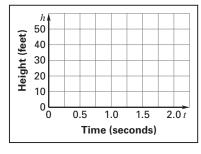
**23.** 
$$f(x) = -x^2 + 1$$



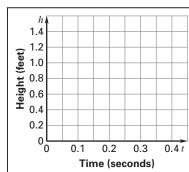
**24.** 
$$f(x) = 3x^2 + 12x$$



- **25. Stunt Double** A movie stunt double jumps from the top of a building 50 feet above the ground onto a pad on the ground below. The stunt double jumps with an initial vertical velocity of 10 feet per second.
  - **a.** Write and graph a function that models the height h (in feet) of the stunt double t seconds after she jumps.
  - **b.** How long does it take the stunt double to reach the ground?



- **26. Wastebasket** You throw a wad of used paper towards a wastebasket from a height of about 1.3 feet above the floor with an initial vertical velocity of 3 feet per second.
  - **a.** Write and graph a function that models the height h (in feet) of the paper t seconds after it is thrown.
  - **b.** If you miss the wastebasket and the paper hits the floor, how long does it take for the ball of paper to reach the floor?
  - **c.** If the ball of paper hits the rim of the wastebasket one-half foot above the ground, how long was the ball in the air?



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**ESSON 10.3**