Name _____ Date _____

LESSON 10.3

Practice B

For use with pages 643–651

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

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

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

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

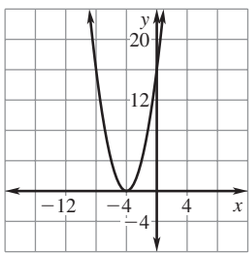
4. $x^2 + 3x - 4 = 0; 1$

5. $2x^2 + 9x - 5 = 0; -2$

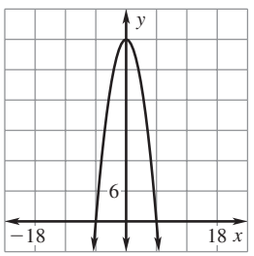
6. $3x^2 - 5x - 2 = 0; 2$

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

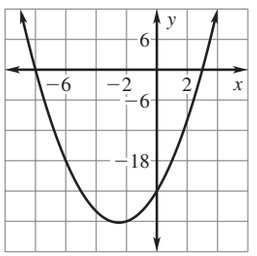
7. $x^2 + 8x + 16 = 0$



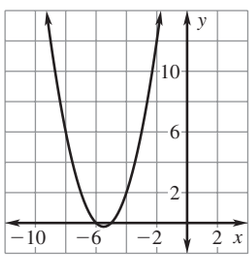
8. $-x^2 + 36 = 0$



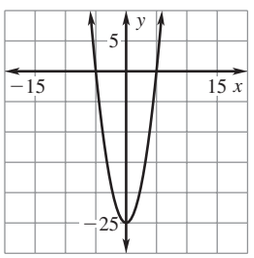
9. $x^2 + 5x - 24 = 0$



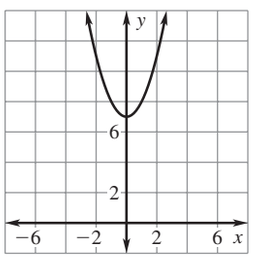
10. $x^2 + 11x + 30 = 0$



11. $x^2 - 25 = 0$

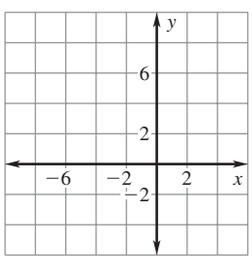


12. $x^2 + 7 = 0$

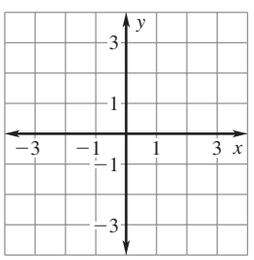


Solve the equation by graphing.

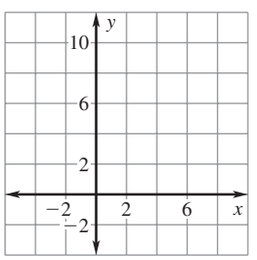
13. $-x^2 - 6x = 0$



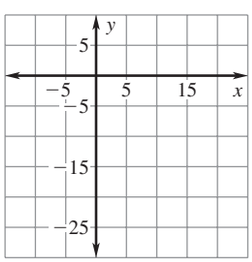
14. $2x^2 = 2$



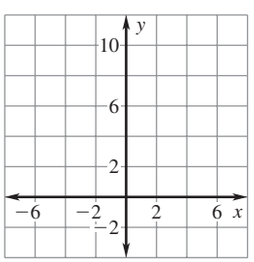
15. $x^2 - 7x + 10 = 0$



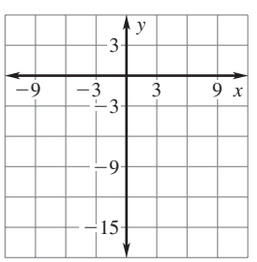
16. $x^2 = 10x$



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



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



Name _____ Date _____

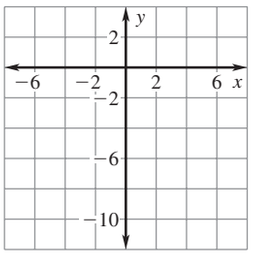
LESSON 10.3

Practice B

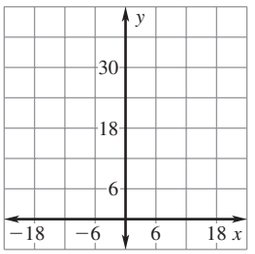
For use with pages 643–651

Find the zeros of the function by graphing.

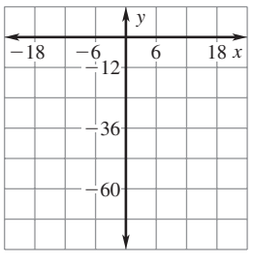
19. $f(x) = -x^2 - 5x - 10$



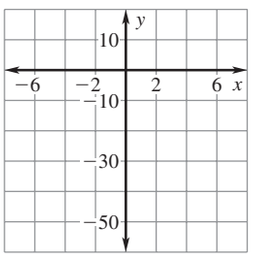
20. $f(x) = x^2 + 12x + 36$



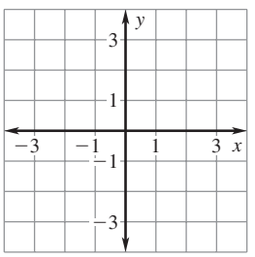
21. $f(x) = 2x^2 + 24x$



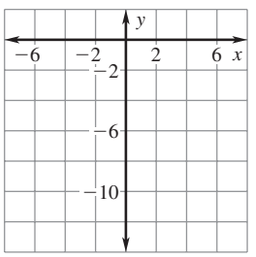
22. $f(x) = x^2 - 49$



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



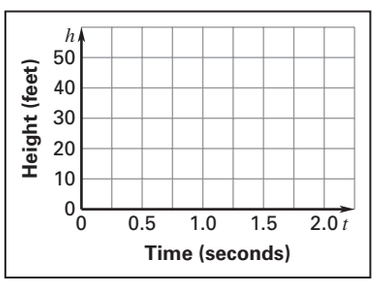
24. $f(x) = 3x^2 + 12x$



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?