LESSON 9.4 **Practice A**
For use with pages 575–580

Match the equation with its solutions.

1. $(x + 4)(x + 5) = 0$ **A.** -5 and 4

2. $(x - 4)(x + 5) = 0$ **B.** -5 and -4

3. $(x - 5)(x - 4) = 0$ **C.** 4 and 5

Solve the equation.

4. $(x + 6)(x + 2) = 0$ **5.** $(p - 5)(p + 3) = 0$ **6.** $(b - 7)(b - 10) = 0$

7. $(m - 8)(m + 1) = 0$ **8.** $(a - 9)(a + 9) = 0$ **9.** $(y + 15)(y + 12) = 0$

10. $(c - 25)(c + 50) = 0$ **11.** $(2z - 2)(z + 3) = 0$ **12.** $(2n - 6)(n - 2) = 0$

Factor out the greatest common monomial factor.

13. $4m - 2$ **14.** $5x - 10$ **15.** $6y + 15$

16. $8x + 8y$ **17.** $7a - 7b$ **18.** $2a + 10b$

19. $9m - 18n$ **20.** $15p - 3q$ **21.** $12x + 4y$

22. $2c^2 + 4c$ **23.** $9m^3 + m^2$ **24.** $2w^2 + 4w$

Match the equation with its solutions.

25. $4a^2 + a = 0$ **A.** 0 and 4

26. $a^2 + 4a = 0$ **B.** 0 and -4

27. $a^2 - 4a = 0$ **C.** 0 and $-\dfrac{1}{4}$

Solve the equation.

28. $a^2 + 8a = 0$ **29.** $n^2 - 7n = 0$ **30.** $2w^2 + 2w = 0$

31. $3p^2 - 3p = 0$ **32.** $4c^2 - 8c = 0$ **33.** $5x^2 + 10x = 0$

34. Hot Air Balloon An object is dropped from a hot-air balloon 1296 feet above the ground. The height of the object is given by

$$h = -16(t - 9)(t + 9)$$

where the height h is measured in feet, and the time t is measured in seconds. After how many seconds will the object hit the ground?

35. Kickball A kickball is kicked upward with an initial vertical velocity of 3.2 meters per second. The height of the ball is given by

$$h = -9.8t^2 + 3.2t$$

where the height h is measured in feet, and the time t is measured in seconds. After how many seconds does the ball land?