

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 $-\frac{1}{4}$ |

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?

Rugal Littell, a division of Houghton Mifflin Company.

Practice Level A

1. B 2. A 3. C 4. -6, -2 5. -3, 5 6. 7, 10
7. -1, 8 8. -9, 9 9. -15, -12 10. -50, 25
11. -3, 1 12. 2, 3 13. $2(2m - 1)$ 14. $5(x - 2)$
15. $3(2y + 5)$ 16. $8(x + y)$ 17. $7(a - b)$
18. $2(a + 5b)$ 19. $9(m - 2n)$ 20. $3(5p - q)$
21. $4(3x + y)$ 22. $2c(c + 2)$ 23. $m^2(9m + 1)$
24. $2w(w + 2)$ 25. C 26. B 27. A 28. -8, 0
29. 0, 7 30. -1, 0 31. 0, 1 32. 0, 2
33. -2, 0 34. 9 sec 35. about 0.33 sec