

**Practice B**

For use with pages 256–263

**Factor the expression. If the expression cannot be factored, say so.**

- |                      |                       |                      |
|----------------------|-----------------------|----------------------|
| 1. $x^2 + 4x - 21$   | 2. $x^2 + 6x - 2$     | 3. $x^2 + 8x + 15$   |
| 4. $x^2 + 9x + 14$   | 5. $x^2 - 11x + 28$   | 6. $x^2 - 10x + 24$  |
| 7. $x^2 + 3x + 1$    | 8. $2x^2 - 5x - 3$    | 9. $3x^2 - x - 2$    |
| 10. $3x^2 + 7x + 2$  | 11. $2x^2 + 5x + 3$   | 12. $10x^2 - 3x - 1$ |
| 13. $6x^2 - 13x + 2$ | 14. $15x^2 - 14x + 3$ | 15. $2x^2 + 7x + 1$  |
| 16. $x^2 + 16x + 64$ | 17. $x^2 - 6x + 9$    | 18. $x^2 - 49$       |
| 19. $4x^2 + 4x + 1$  | 20. $9x^2 - 12x + 4$  | 21. $9x^2 - 1$       |
| 22. $x^2 + 8x - 5$   | 23. $4x^2 + 7$        | 24. $6x^2 + 17x + 5$ |

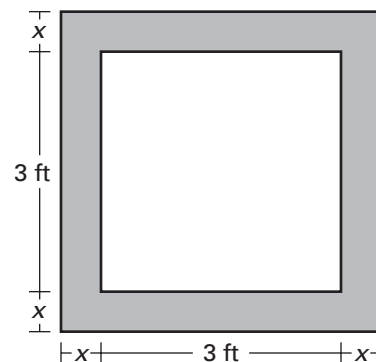
**Factor the expression.**

- |                      |                        |                        |
|----------------------|------------------------|------------------------|
| 25. $2x^2 - 4x - 30$ | 26. $-x^2 + 10x - 21$  | 27. $-3x^2 - 15x - 12$ |
| 28. $4x^2 + 14x + 6$ | 29. $6x^2 - 33x + 15$  | 30. $-4x^2 + 10x + 24$ |
| 31. $12x^2 - 3$      | 32. $-8x^2 + 24x - 18$ | 33. $45x^2 + 30x + 5$  |

**Solve the equation.**

- |                                     |                           |                           |
|-------------------------------------|---------------------------|---------------------------|
| 34. $x^2 + x - 30 = 0$              | 35. $x^2 + 10x + 9 = 0$   | 36. $x^2 - 12x + 32 = 0$  |
| 37. $2x^2 + 7x - 4 = 0$             | 38. $3x^2 + 8x - 3 = 0$   | 39. $5x^2 + 3x - 2 = 0$   |
| 40. $3x^2 - 8x + 5 = 0$             | 41. $25x^2 + 20x + 4 = 0$ | 42. $49x^2 - 14x + 1 = 0$ |
| 43. $25x^2 = 16$                    | 44. $2x^2 - x = 21$       |                           |
| 45. $8x^2 + 5x - 4 = 2x^2 - 8x + 1$ |                           |                           |

46. **Furniture Manufacturing** You are making a coffee table with a glass top surrounded by a cherry border. The glass is 3 feet by 3 feet. You want the cherry border to be a uniform width. You have 7 square feet of cherry to make the border. What should the width of the border be?



47. A magazine has a circulation of 140 thousand per month when they charge \$2.50 for a magazine. For each \$.10 increase in price, 5 thousand sales are lost. How much should be charged per magazine to maximize revenue?