NAME _____ DATE _____

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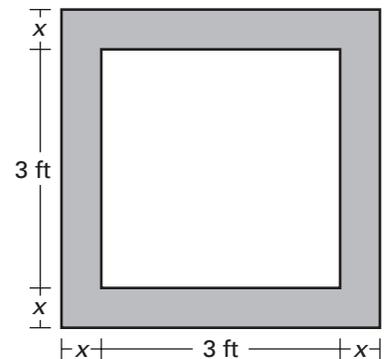
47. A magazine has a circulation of 140 thousand per month when they charge
$2.50 for a magazine. For each $.10 increase in price, 5 thousand sales are
lost. How much should be charged per magazine to maximize revenue?