Practice 9-5

Factoring Trinomials of the Type $x^2 + bx + c$

Factor each expression.

1. $x^2 + 8x + 16$

2. $d^2 + 8d + 7$

3. $y^2 + 6y + 8$

4. $b^2 - 2b - 3$

5. $s^2 - 4s - 5$

6. $x^2 + 12x + 32$

Practice 9-6

Factoring Trinomials of the Type $ax^2 + bx + c$

Factor each expression.

7. $7n^2 + 9n + 2$

8. $3c^2 - 17c - 6$

9. $3x^2 + 8x + 4$

10. $6x^2 - 7x - 10$

11. $3x^2 - 10x + 8$

12. $3y^2 - 16y - 12$

13. $5x^2 + 2x - 3$

14. $3x^2 + 7x + 2$

15. $7x^2 - 10x + 3$

Practice 9-7

Factor each expression. If necessary, factor out the GCF first!

31. $x^3 - 36x$

32. $9y^2 - 289$

33. $x^2 - 30x + 225$

34. $100a^2 - 9$

35. $2x^2 + 4x + 2$

36. $5n^3 - 20n$

37. $9n^2 + 12n + 4$

38. $d^2 - 169$

39. $4a^2 - 81$

Practice 9-8

Factor each expression.

1. $x(a + 2) - 2(a + 2)$

2. $3(x + y) + a(x + y)$

3. $m(x - 3) + k(x - 3)$

10. $ax + bx - ay - by$

11. $2x^2 - 6xy + 5x - 15y$

12. $3x^2 - 6xy + 2x - 4y$

34. $2x^3 + 8x^2 + x + 4$

35. $8x^4 + 6x - 28x^3 - 21$

36. $5x^3 - x^2 + 15x - 3$

37. $3x^3 - 6x^2 + 15x - 30$

38. $24x^3 - 6x^2 + 8x - 2$