

**Factoring Trinomials of the form  $ax^2 + bx + c$** 

$$3x^2 - 9x - 12 = 3(x^2 - 3x - 4) = 3(x - 4)(x + 1)$$

**Factor.**

1.  $5x^2 - 10x - 15$

11.  $3x^2 - 4x - 32$

2.  $6x^2 - 15x - 21$

12.  $4x^2 - 16x + 15$

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

13.  $4x^2 + 7x - 15$

4.  $2x^2 - 11x - 21$

14.  $6a^2 - 21a + 15$

5.  $4x^2 + 2x - 20$

15.  $11x^2 + 122x + 11$

6.  $3x^2 - 5x - 12$

16.  $3x^2 - 20x - 7$

7.  $7x^2 - 26x - 8$

17.  $2y^2 - 17y + 35$

8.  $12x^2 - 6x - 18$

18.  $4x^2 - 16x + 15$

9.  $6x^2 - 13x + 6$

19.  $6x^2 + 25x + 25$

10.  $2x^2 + 9x + 10$

20.  $7c^2 - 16c + 9$

Name \_\_\_\_\_

**Factoring**

## **Solving Quadratic Equations by Factoring**

**Solve by factoring.**

1.  $x^2 - 6x + 9 = 0$

2.  $x^2 + 7x + 10 = 0$

3.  $x^2 = 4x - 4$

4.  $3x^2 - 13x + 4 = 0$

5.  $6y^2 - 7y + 2 = 0$

6.  $x^2 = 10x - 25$

7.  $x^2 + 3x - 10 = 0$

8.  $r^2 - 15r = 16$

9.  $4a^2 + 9a + 2 = 0$

10.  $2a^2 + a - 6 = 0$

11.  $4a^2 + 15a - 4 = 0$

12.  $9x^2 = 18x + 0$

13.  $x^2 - 5x + 6 = 0$

14.  $2x^2 = 9x + 5$

15.  $2x^2 - 9x + 9 = 0$

16.  $6x^2 = 23x + 18$

17.  $3x^2 - 2x - 8 = 0$

18.  $x^2 = 4x + 5$

19.  $a^2 - 6a = 0$

20.  $x^2 + 3x - 4 = 0$

21.  $x^2 + 7x + 12 = 0$

22.  $x^2 + 5x - 6 = 0$