Lesson 27   **Factoring Trinomials of the Type $x^2 + bx + c$**

Factoring $x^2 + bx + c$:

Steps to follow . . .

1. List c on the side (include the sign).
2. Find all factor pairs of c.
3. Look for a factor pair that could add or subtract to equal b.
4. Determine the signs of each number in the pair so that they add up to b and multiply to c.
5. List the factor pairs in the form $(x + \underline{\quad})(x + \underline{\quad})$.

Examples: Factor each trinomial.

1. $x^2 + 7x + 12$

2. $x^2 - 11x + 18$

3. $p^2 - 3p - 18$

4. $m^2 + 6m - 27$

5. $k^2 - 10k + 25$

6. $x^2 - 9$

7. $4y^2 - 9$

8. $25m^2 - 16$