

Factor!

$$8a^2 - 2a =$$

$$4y^5 + 3y^3 =$$

$$x^2y^2 + x^3y =$$

$$x^2y^2 + xy =$$

$$3x + 12x^2 =$$

$$6x^3 - 9x^2 =$$

$$4x^2 + 6xy =$$

$$10x^5 - 15x^4 =$$

$$12a^2 - 18ab =$$

$$7x^3 - 7x^2 =$$

$$25x + 30xy =$$

Factoring Trinomials

Example: Factor $3x^2 + 7x + 2$

$$3x^2 + 7x + 2 = (_ + _)(_ + _)$$

$$3x^2 + 7x + 2 = (\underline{3x} + _)(\underline{x} + _)$$

$$3x^2 + 7x + 2 = (\underline{3x} + _)(\underline{x} + _)$$

$$\begin{array}{cc} +2 & +1 \\ +1 & +2 \end{array}$$

$$\begin{array}{cc} +1 & +2 \end{array}$$

Which is it?

$$(3x+2)(x+1) \quad \text{OR} \quad (3x+1)(x+2)$$

$$\text{Answer: } 3x^2 + 7x + 2 = (3x+1)(x+2).$$

Factor these trinomials.

1. $5x^2 + 11x + 2$

2. $5x^2 + 7x + 2$

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

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

5. $3x^2 - 4x + 1$

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

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

8. $x^2 + 6x - 7$

9. $x^2 + x - 6$

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