Factoring Rules

Do this First:	Divide out common factors.

Do this Second: **Does it have….**	**2 terms**	**3 terms**	**4 terms**
	Difference of two squares $a^2 - b^2 = (a + b)(a - b)$ **Sum of two squares** $a^2 + b^2$ = Prime = Can't factor	**Squared term in front:** a. Write (x) (x). b. Find two numbers that multiply to make the back number and add to make the middle. **Number in front:** Split the middle. a. Multiply front and back coefficients. b. Find factors of the answer that add to make the middle. c. Split it and chop the problem in half. d. Factor the front terms. Factor the back terms.	a. Chop the problem in half. b. Factor the front two terms. Factor the back two terms.

Do this Third:	Look inside factors that have parentheses. If there is a square or higher power, see if the term can be factored.