

Factor X2 + bX + C



WARM-UP YOUR



1) Find the product : (x-5)(x+4) $X^2-|x-20|$

What if we were given quadratic and asked to UNFOIL IT???

Example 1: Factor (UNFOIL) the following:

 $x^2 + 11x + 18$

$$c = 18$$

Factors of 18	Sum of factors
1.18	19
2.9	11
3,6	9
-1,-18	-19

Factored Form: (x+2)(x+9)



FOIL and check! $\chi^2 + 11\chi + 18$

THE BIG IDEA

$$x^{2} + bx + c$$

Find two numbers whose SUM is equal to b, and whose PRODUCT is equal to c.

$$x^2 + 7x + 10$$

$$x = 10$$

SUM

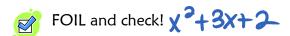
PRODUCT

Example 2:

Factor the following trinomial:

$$x^2+3x+2$$
 (x+2)(x+1)

Factored Form: (X+2)(X+1)



Example 3:

Factor the following trinomial:

$$n^2-6n+8$$
 $(n-4)(n-2)$

Factored Form: (n-4)(n-2)

