II. Factoring Trinomials:

Type 1: Polynomials of the form $x^2 + bx + c$

- Often referred to as "Simple Trinomials"

Expand each of the following:

(a) $(w + 5)(w - 4)$ (b) $(x - 8)(x - 6)$

$w^2 - 4w + 5w - 20$ $x^2 - 6x - 8x + 48$

$w^2 + w - 20$ $x^2 - 14x + 48$

Expanding →

← Factoring

Simple Trinomials

- has three terms with the form...

$$ax^2 + bx + c$$

- a simple trinomial has an "a" value of 1.

- we use a method of inspection to factor them.

CHECK IT OUT!!!

INSPECTION METHOD

- here's how it goes... "What two numbers?"

Adds to get "b"

$$x^2 + bx + c$$

Multiplies to get "c"

$16 \times 3 = 48$

EXAMPLES...

1) $x^2 + 13x - 48$ $(x - 3)(x + 16)$

SOLUTION

$(x-3)(x+16)$

$6 \times 4 \quad 2 \times 12 = 24$

2) $x^2 - 10x - 24$ $(x - 12)(x + 2)$

SOLUTION

$(x-12)(x+2)$

3) $2x^2 - 20x + 42$

SOLUTION

$2(x^2-10x+21)$

$2(x-7)(x-3)$

Your Turn...

$$w^2 - 13w - 30$$

$$(w-15)(w+2)$$

Let's try and factor each of the following trinomials:

$x^2+12x+32$

$(x+8)(x+4)$

$a^2+10a-24$

$(a-2)(a+12)$

$w^2-13w-30$

$x^2-8x+12$

$(x-6)(x-2)$

Attachments

Puzzle Worksheet - Goruping Like Terms.pdf

Puzzle Worksheet - Distribution Property.pdf

Example - Squaring a Binomial.avi

Worksheet - Factor GCF & Simple Trinomials.doc

Worksheet - Factoring Review.doc

Puzzle Worksheet - GCF.pdf

Puzzle Worksheet - Simple Trinomials.pdf

Worksheet - Expanding.pdf

Puzzle Worksheet - Difference of Squares.pdf

Puzzle Worksheet - Review of Factoring.pdf

Assignment - Expand_Simplify_Factor Mar. 2014.pdf

Review - Factoring.pdf