INB

1/12/21 Unit 1

Day 3 - Multiplying Polynomials

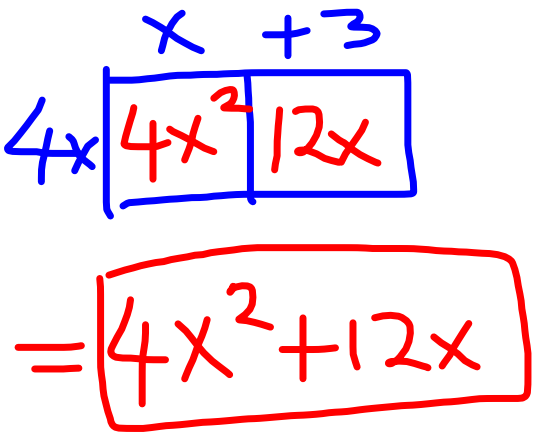
Essential Question

How can I multiply Polynomials?

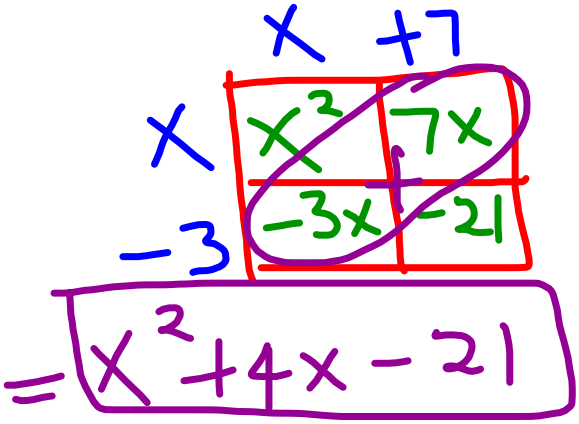
By using Area Models!

Multiplying Polynomials using Area Model - I do

a. $4x(x + 3)$



b. $(x - 3)(x + 7)$



Multiplying Polynomials using Area Model

We do

c. $(x + 5)^2$

$= (x+5)(x+5)$

	x	$+5$
x	x^2	$5x$
$+5$	$5x$	25

$= x^2 + 10x + 25$

d. $(x - 4)(x + 4)$

	x	-4
x	x^2	$-4x$
$+4$	$4x$	-16

$= x^2 - 16$

Multiplying Polynomials using Area Model

You do

e. $(3x + 6)(2x - 7)$

	$2x$	-7
$3x$	$6x^2$	$-21x$
$+6$	$12x$	-42

$= 6x^2 - 9x - 42$

f. $(x - 3)(2x^2 + 2)$

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

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

Independent Practice

Solve these problems using the Area Model.

1) $(x - 7)(x + 4)$

	x	-7
x	x^2	$-7x$
$+4$	$4x$	-28

$= x^2 - 3x - 28$

2) $(x - 9)^2$

$= (x-9)(x-9)$

	x	-9
x	x^2	$-9x$
-9	$-9x$	81

$= x^2 - 18x + 81$

Independent Practice

3) $(x + 10)(x - 10)$

opposite numbers

	x	$+10$
x	x^2	$10x$
-10	$-10x$	-100

$= x^2 - 100$

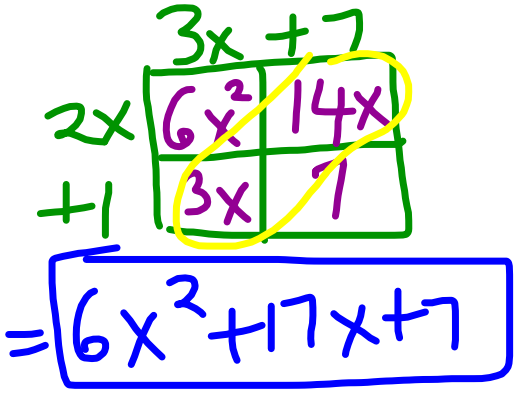
4) $x(x - 12)$

	x	-12
x	x^2	$-12x$

$= x^2 - 12x$

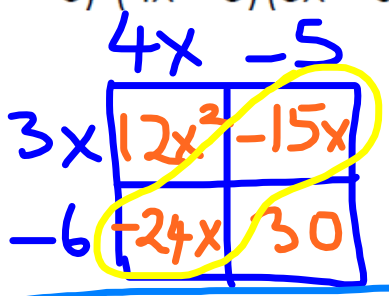
Independent Practice

5) $(3x + 7)(2x + 1)$



$= 6x^2 + 17x + 7$

6) $(4x - 5)(3x - 6)$



$= 12x^2 - 39x + 30$

$$(2x - 3)(x + 6)$$

$$(3x + 4)(x - 5)$$

HW - 1/12/21

Unit 1: Classify, Simplify, Add & Subtract Polynomials

Due tomorrow