Before we begin, are there any questions from last day's work?

Today's Learning Goal(s):

By the end of the class, I will be able to:

a) multiply two binomials together, and simplify the result.

MPM 2DI   5.1 Multiply Polynomials   Date: _Nov. 7/16_

Recall: Here are some examples of algebra concepts.

Ex.1   Simplify.   (pay attention to the minor differences, i.e., addition vs. multiplication)

a) $2a + 3a$ b) $(2a)(3a)$ c) $2a + 3c$ d) $(2a)(3c)$

$= 5a$

$= (2)(3)(a)(a^1)$
$= 6a^{1+1}$
$= 6a^2$

Does Not Simplify

$= 6ac$

e) $2(x+3)$ f) $2x(x+7)$ g) $3x(2x+5y)$

$= 2x + 6$ $= 2x^2 + 14x$ $= 6x^2 + 15xy$

For extra practice, choose from
pp. 208-209 #1, 2, 3abc, 4abc, 6, 8, 9, 10
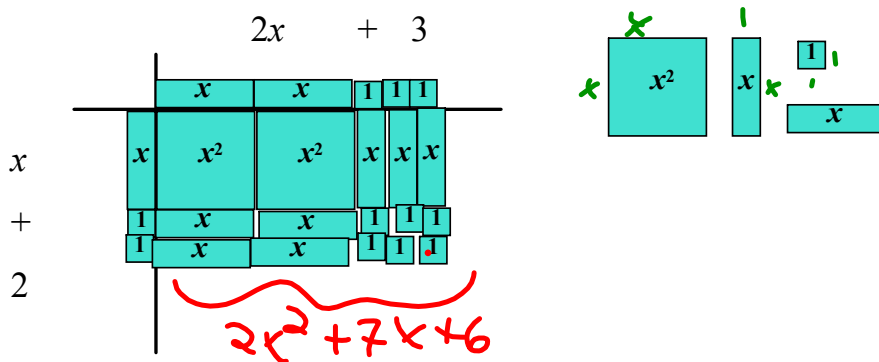
$3xy + 7yx$ vs. $3x^2y + 7y^2x$

$= 3xy + 7xy$ $3x^2y + 7xy^2$

$= 10xy$

Ex.2   Expand and Simplify.   (see Algebra Tiles p.214…also "using smiles")

a) $(2x+3)(x+2)$

$$2x^2+7x+6$$

a) $(2x+3)(x+2)$

$= 2x^2 + 4x + 3x + 6$

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

b) $(x+4)(x+7)$

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

$= x^2 + 11x + 28$

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

$= x^2 - 3x + 5x - 15$

$= x^2 + 2x - 15$

Ex.3   Expand and Simplify.

a) $(2x+5)(3x-4)$

$= 6x^2 - 8x + 15x - 20$

$= 6x^2 + 7x - 20$

b) $(2x-3y)(4x-5y)$

$= 8x^2 - 10xy - 12xy + 15y^2$

$= 8x^2 - 22xy + 15y^2$

c) $-5(x+1)(x-4)$

$= -5(x^2 - 4x + x - 4)$

$= -5(x^2 - 3x - 4)$

$= -5x^2 + 15x + 20$

d) $(3x+4)^2$

$= (3x+4)(3x+4)$

$= 9x^2 + 12x + 12x + 16$

$= 9x^2 + 24x + 16$

e) $(x+3)(x+4) - (2x-3)(x+6)$

$= (x^2 + 4x + 3x + 12) - (2x^2 + 12x - 3x - 18)$

$= x^2 + 7x + 12 - (2x^2 + 9x - 18)$

$= x^2 + 7x + 12 - 2x^2 - 9x + 18$

$= x^2 - 2x^2 + 7x - 9x + 12 + 18$

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

Be ready for the Unit 4 Summative tomorrow!

Today's practice: p. 218 # 6, 7, 8abce, 10

Enrichment: pp. 218-219 #11, 12abc [in c), use a table of values],
#14

For extra practice, choose from
pp. 208-209 #1, 2, 3abc, 4abc, 6, 8, 9, 10