

## Multiplying polynomials 1.31.17

Warm up: Multiply 24 by 36. Think about the ones place and then tens place while you multiple this.

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

Go over homework

$(x + 3)(x + 2)$  We are going to use the F.O.I.L.

First outer inner last Multiply the first of each parenthesis, then the outer of each parenthesis.

Then the inner of each parenthesis, then last of each parenthesis.

So we get

$x^2 + 2x + 3x + 6$  Then combine like terms to get

$$x^2 + 5x + 6$$

Again

$$(x - 5)(x + 7) = x^2 + 7x - 5x - 35 = x^2 + 2x - 35$$

$$\text{Again } (2y + 3)(6y - 7) = 12y^2 - 14y + 18y - 21 = 12y^2 + 4y - 21$$

$$(4x + 9)(2x^2 - 5x + 3) = 8x^3 - 20x^2 + 12x + 18x^2 - 45x + 27 = 8x^3 - 2x^2 - 33x + 27$$

$$(y^2 - 2y + 5)(6y^2 - 3y + 1) = 6y^4 - 15y^3 + 37y^2 - 17y + 5$$

Hw: Pg 455 #13, 14, 26, 27, 31, 32, 37, 38