

Last day's Work: **READ pp.84-87**

p. 82 #1-6 **d**

pp. 88-89 #(4-6, 8)ac (ignore funcon notaon)

p. 82

$$1a) 4x - 7$$

degree = 1

$$e) x^2 - 3xy + y^2$$

↑ ↑ ↑
2 2 2 degree = 2

p. 82

5. Simplify.

$$d) \left(\frac{4}{3}\right) \div \left(\frac{-2}{15}\right)$$

$$= \frac{4^2}{3} \times \frac{15}{-2}$$

$$= \frac{10}{-1}$$

$$= -10$$

p. 82

$$6d) 25x^3y^3 \div 5x^2y^1$$

$$= \frac{25}{5} x^{3-2} y^{3-1}$$

$$= 5x^1y^2$$

p. 89

$$8a) y = (2x^2 + 7x - 2) - (3x + 7)$$

$$= 2x^2 + 7x - 2 - 3x - 7$$

$$= 2x^2 + 4x - 9$$

$$y = (x^2 + 12) + (x^2 + 4x - 17)$$

$$= x^2 + 12 + x^2 + 4x - 17$$

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

∴ Not equivalent expressions

Today's Learning Goal(s):

Date: Feb. 7/19
(Every lesson)

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

- a) multiply 2 or more polynomials.

2.2 Multiplying Polynomials

Warm up: Expand and simplify.

$$\begin{aligned} \text{a) } & 3x(2x^2 - 4x + 2) \\ & = (3 \cdot 2)x^{1+2} - (3 \cdot 4)x^{1+1} + (3)(2)x \\ & = 6x^3 - 12x^2 + 6x \end{aligned}$$

$$\begin{aligned} \text{b) } & 3x(x-2) - 2x(3x-1) \\ & = 3x^2 - 6x - 6x^2 + 2x \\ & = -3x^2 - 4x \end{aligned}$$

Ex.1 Simplify the following in more than one way

(Remember to express answers using correct format)

a. $(4x - 2y)(3x + y)$ **FOIL**

$$= \underline{12x^2} + \underline{4xy} - \underline{6xy} - \underline{2y^2}$$

$$= 12x^2 - 2xy - 2y^2$$

b. $(8x + 5)(-3x^2 + 4x - 2)$

$$= -24x^3 + \underline{32x^2} - \underline{16x} - \underline{15x^2} + \underline{20x} - \underline{10}$$

$$= -24x^3 + 17x^2 + 4x - 10$$

What if: $2x(x - 3)(3x + 5)$ (show solution on next screen)

List the steps of multiplying polynomials **using words; share.**

need all combinations (intro hand shakes), like variables/exponent laws, collect then descending order

Complete the following individually.

c) $(3x + 4)(2x - 1)(x + 2)$

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

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

$$= \underline{6x^3} + \underline{9x^2} - \underline{6x} + \underline{8x^2} + \underline{12x} - \underline{8}$$

$$= 6x^3 + 17x^2 + 6x - 8$$

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

$$= x^3 - 2x^2 + 3x^2 - 6x - 4x + 8$$

$$= x^3 + x^2 - 10x + 8$$

Today's Homework Practice includes:

Sign and **RETURN** the cover sheet with email address PRINTED.

READ pp.91-95

pp. 95-97 #1, (4 – 6)ac, 11 [15, 16]

What if: $2x(x-3)(3x+5)$

$$= 2x(3x^2 + 5x - 9x - 15)$$

$$= 2x(3x^2 - 4x - 15)$$

$$= 6x^3 - 8x^2 - 30x$$

Simplify:

$$\frac{7^1}{22^2} \times \frac{5}{6^3} \times \frac{8^2}{3^1} \times \frac{11^1}{14^2} \times \frac{5^1}{4^1} \times \frac{9^3}{10^2}$$

$$= \frac{1 \times 5 \times 1 \times 1 \times 1 \times 1}{2 \times 2 \times 1 \times 2 \times 1 \times 1}$$

$$= \frac{5}{8}$$

$\frac{138600}{221760}$