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

p. 2 #1 – 8 p. 82 #1 – 6 6c

X 3d, 5b, 6b 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) $\left(\frac{4}{3}\right) \div \left(\frac{-2}{15}\right)$

p. 82

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

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

3. Solve each linear equation.

a) $5x - 8 = 7$

b) $-2(x - 3) = 2(1 - 2x)$

c) $\frac{5}{6}y - \frac{3}{4}y = -3$

d) $\frac{x - 2}{4} = \frac{2x + 1}{3}$

$\frac{x-2}{4} = \frac{2x+1}{3}$

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

$\frac{5}{6}y - \frac{3}{4}y = -3$

LCD = 12

$12\left(\frac{5}{6}y\right) - 12\left(\frac{3}{4}y\right) = 12(-3)$

$2(5y) - 3(3y) = 12(-3)$

$10y - 9y = -36$

$y = -36$

$12\left(\frac{x-2}{4}\right) = 12\left(\frac{2x+1}{3}\right)$

$3x - 6 = 8x + 4$

$3x - 8x = 4 + 6$

$-5x = 10$

$x = -2$

5. Graph each circle.

a) $x^2 + y^2 = 9$

$x^2 + y^2 = r^2$

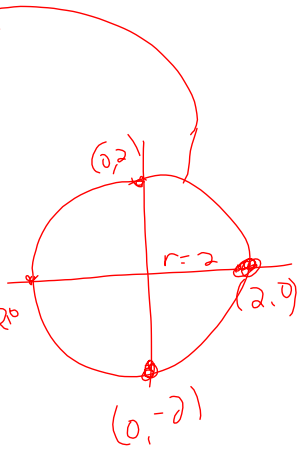
b) $3x^2 + 3y^2 = 12$

$\frac{3x^2}{3} + \frac{3y^2}{3} = \frac{12}{3}$

$x^2 + y^2 = 4$

$\therefore r^2 = 4$

$\therefore r = \pm 2$ (-2 not used)



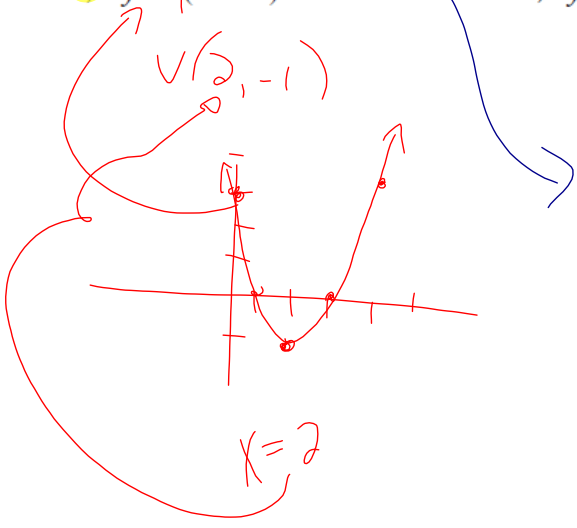
6. Graph each **parabola**, labelling the **vertex** and the **axis of symmetry**.

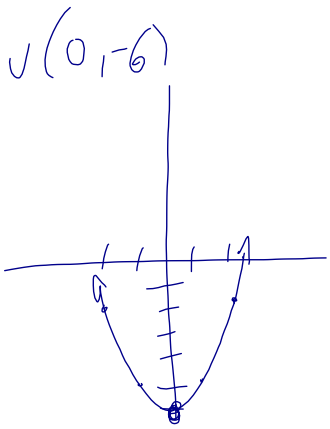
a) $y = x^2 - 6$

b) $y = (x - 2)^2 - 1$

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

d) $y = -x^2 + 6x$





5. Simplify.

a) $\frac{3}{4} + \frac{1}{6}$

b) $\frac{-2}{5} - \frac{1}{10}$

6. Simplify.

a) $\left(\frac{2x^2}{3}\right)\left(\frac{5x^3}{4}\right)$

b) $\left(\frac{3x}{2}\right) \div \left(\frac{x^3}{5}\right)$

$= \frac{3x}{2} \times \frac{5}{x^3}$

$= \frac{15}{2x^2}$

Today's Learning Goal(s):

Date: Sept. 4/19
(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.

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

$=6x^3-12x^2+6x$

b) $3x(x-2)-2x(3x-1)$

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

$=-3x^2-4x$

Ex.1 Simplify the following in more than one way
(Remember to express answers using ~~correct format~~)

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

$=12x^2+4xy-6xy-2y^2$

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

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

$=-24x^3+32x^2-16x-15x^2+20x-10$

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

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

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

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

$=6x^3+9x^2-6x+8x^2+12x-8$

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

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]

138 600
221 760

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

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

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

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

Simplify:

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

$= \frac{5}{8}$

$= 6x^3-8x^2-30x$ $= \frac{5}{8}$