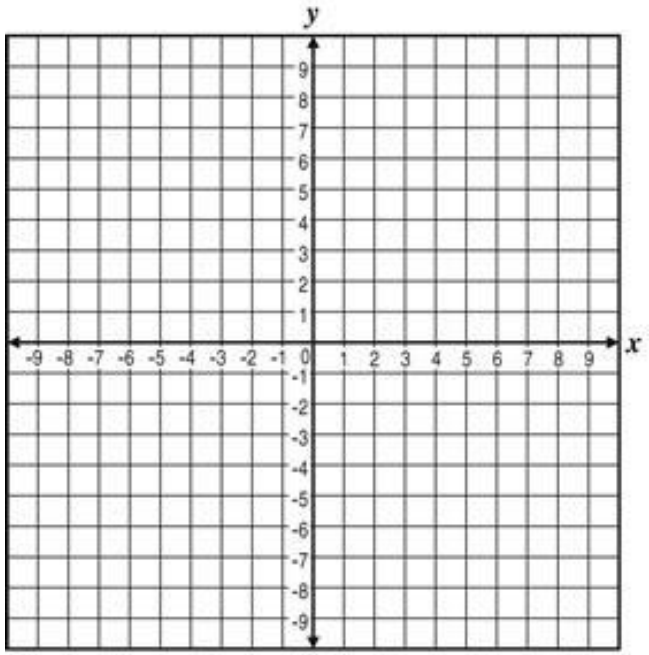
FRIDAY, MARCH 8, 2019

- Warm-up
  - Graph the following: $f(x) = 2x^2 - 4x - 6$
    - Mark and state the y-intercept, x-intercept, axis of symmetry and vertex



- Practice All Together
- PBL Work

Objectives

Content: I will be able to determine **y-intercept**, **x-intercept**, **vertex**, **focus** and **directrix** from the standard form of the quadratic equation.

Social: I will do my best today to stay focused and take good notes.

Language: I will clearly define determine **y-intercept**, **x-intercept**, **vertex**, **focus** and **directrix** in writing for my own reference.

$f(x) = 2x^2 - 4x - 6$

a

$\frac{2}{2} \quad \frac{4}{2} \quad \frac{6}{2}$

$2(x^2 - 2x - 3)$

WARM-UP

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

$x-3=0$ $\quad x+1=0$

$+3 \quad +3 \quad -1 \quad -1$

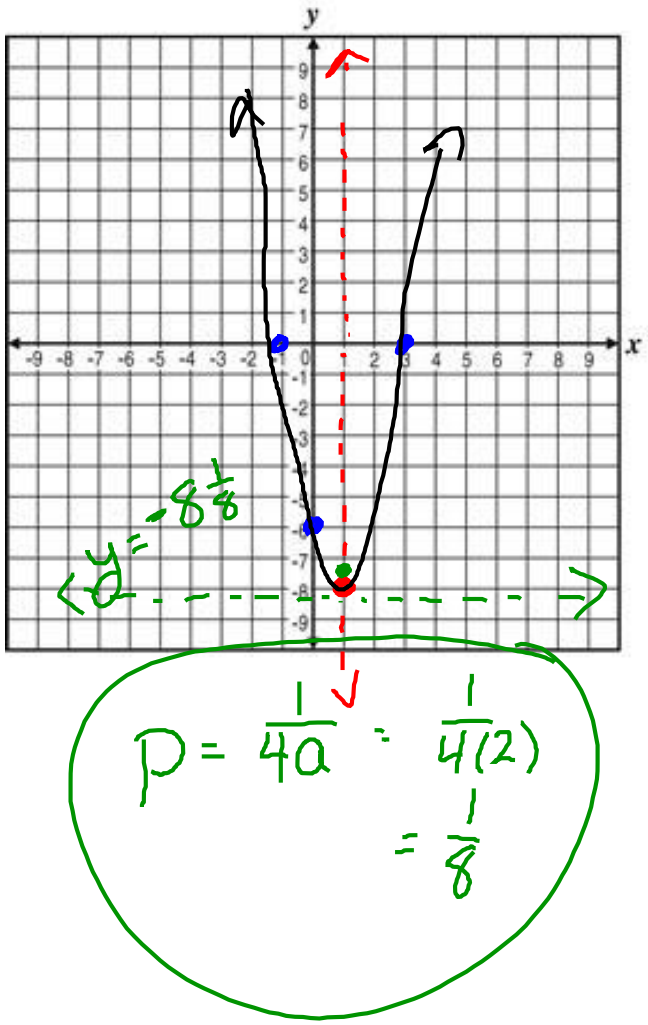
$x=3 \quad x=-1$

- y – intercept: $(0,-6)$
- x – intercept: $(3,0)(-1,0)$
- axis of symmetry: $x=1$
- vertex: $(1,-8)$
- focus: $(1,-7\frac{7}{8})$
- directrix: $y=-8\frac{1}{8}$

$y = 2(1)^2 - 4(1) - 6$

$= 2 - 4 - 6$

$= -8$



$p = \frac{1}{4a} = \frac{1}{4(2)} = \frac{1}{8}$

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Add Focus & Directrix to Poster from the Other Day

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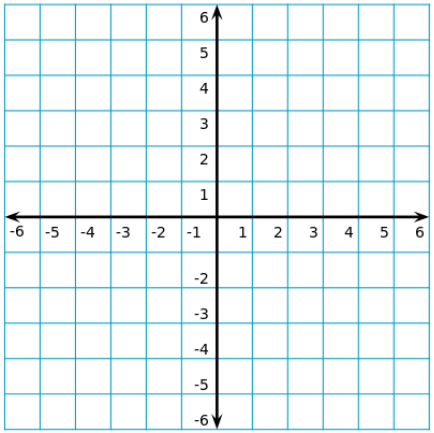
YOU PRACTICE

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

- y – intercept:
- x – intercept:
- axis of symmetry:
- vertex:
- focus:
- directrix:



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Challenge: find the quadratic equations given the following

Focus: (4, 6) **Directrix: y = 0**	**x-intercepts: (0, -3) and (0, 6)** **a = 1**
Vertex: (-2, 4) **a = -1**	**Focus: (3, -2)** **Directrix: y = 4**

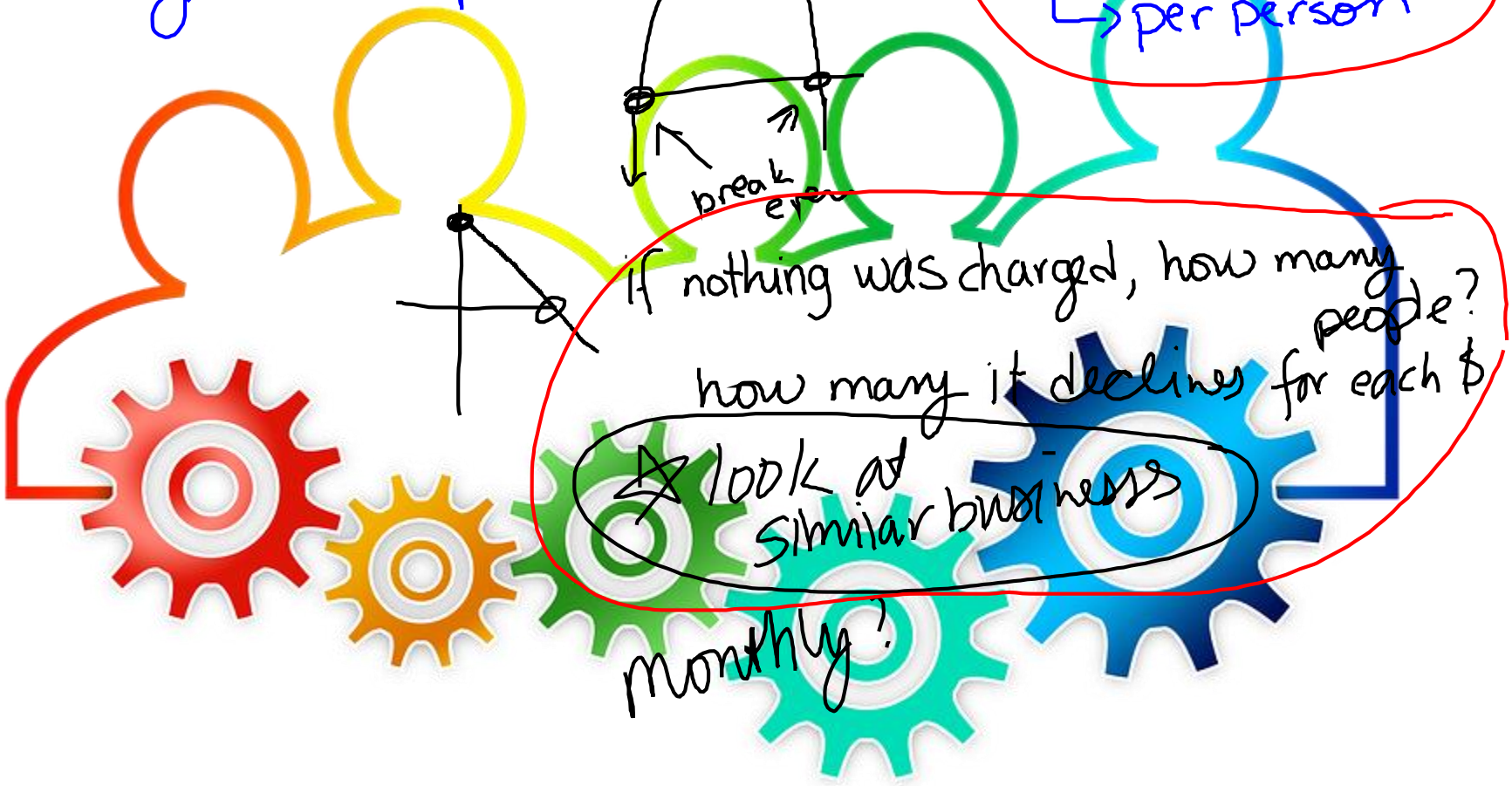
Objectives

Content: I will find and identify critical values of a parabola including y-intercept, x-intercept, vertex, focus and directrix.

Social: I will help those around me to understand by explaining my reasoning clearly.

Language: I will use the vocabulary for the critical values of a parabola including y-intercept, x-intercept, vertex, focus and directrix correctly in speaking.

PBL WORK



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