

Reflective Portfolio

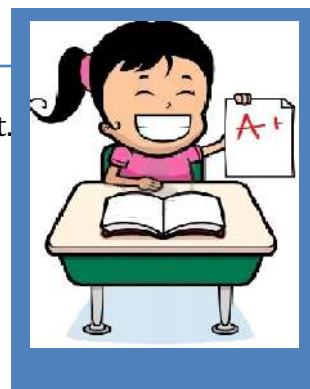
Unit 3: Linear Equations and Inequalities

Algebra 1

At the conclusion of each unit, you will create at least two-page reflective study sheet.

Section 1: Vocabulary (words/ or diagram: Define each of the following:

- Parameters of linear equation:
- Rate of change or slope and it's formula:
- X and y intercepts:
- Half plane:



Section 2: Formulas and Rules:

- What is the difference between the point-slope form of a linear equation and the slope intercept form?
- Vertical lines have what type of slope? _____ Horizontal lines have _____ Slope.

Section 3: Key Methods and Concept:

1) Justify if the point (1, 4) is a solution for the following linear equation:

$$5y - 15x = 10$$

2) Identify the x-intercept and y-intercept for the above equation:

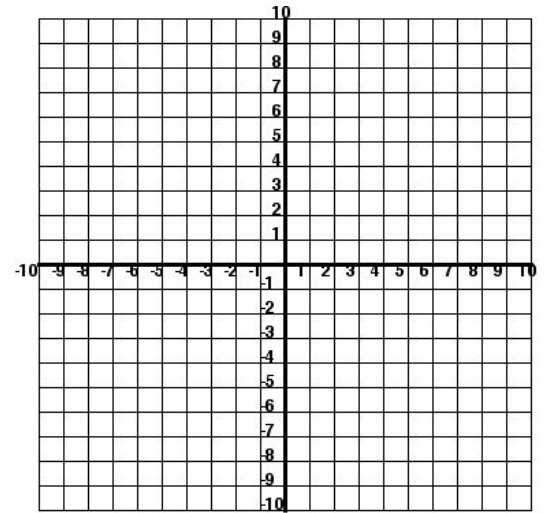
3) Rearrange the following standard form into the slope-y-intercept form

$$5y - 15x = 10 \text{ \&}$$

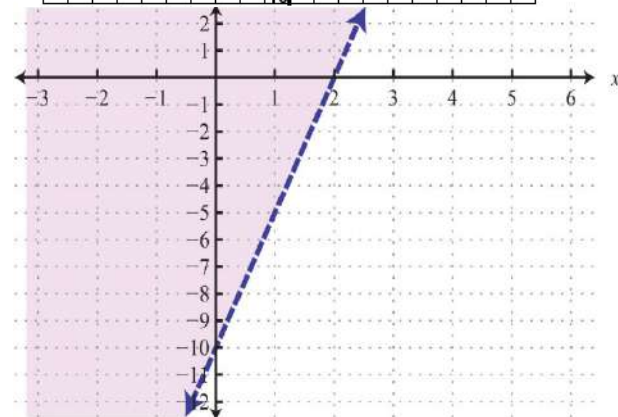
$$6y + 4x - 12 = 0$$

- 4) A climber is on a hike. After 2 hours he is at an altitude of 400 feet. After 6 hours, he is at an altitude of 700 feet. Let t represents the time it takes to climb in hours, and let a represents the number of feet that the hiker climbs. Calculate the average rate that represents this scenario. (hint: find the rate between (2,400) and (6,700))

- 5) Identify the parameters for the following inequality, graph and shade half plane: pick one solution from the shaded region. $-2y - 6x \leq 8$



- 6) Write the linear inequality for the half plane:



- 7) If $(k, 2)$ is a point on the graph of the equation $4x + 2y = 4$, what is the value of k ?
- 8) Nicko is given \$600 to spend on a vacation. He decides to spend \$65 a day.
- Write the linear equation that represents the relationship between the amount of money Nicko has in his account (y) and the number of days (x) of his vacation.
 - Identify the parameters, and what they mean in the context of the situation.