GRAPHING AND WRITING LINEAR EQUATION

I. Write a linear equation from the given two points

Exercise 1

Point (-2, -4) & Point (2,-2)

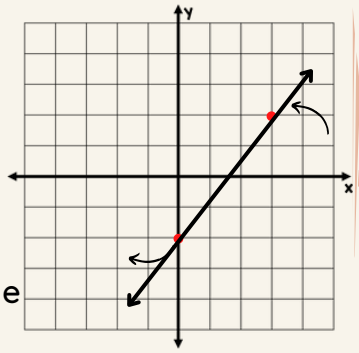
Step 1 Find the slope

$$\text{Slope, } m = \frac{\text{rise}}{\text{run}} = \frac{y2 - y1}{x2 - x1}$$

Step 2 Substitute one of the points and slope into the y = mx + b

II. Write a linear equation from the graph

Exercise 2



Step 1 Find the points

Step 2 Find the slope

$$\text{Slope, } m = \frac{y2 - y1}{x2 - x1}$$

Step 3 Substitute one of the points and slope into the y = mx + b

III. Write a Equation from Description

Exercise 3

The rent charged for space in an office building is a relationship related to the size of the space rented.

Monthly Rates:
600 square feet for $750
900 square feet for $1150

Step 1 Identify ordered pairs from the problem

Step 2 Find the slope

$$\text{Slope, } m = \frac{y2 - y1}{x2 - x1}$$

Step 3 Substitute one of the points and slope into the y = mx + b

IV. Write a equation from the given two points by using Point - slope form.

Exercise 4

Point (-7, 4) & Point (1,-3)

Step 1 Find the slope

$$\text{Slope, } m = \frac{y2 - y1}{x2 - x1}$$

Step 2 Choose one of the known points and label it

Step 3 Plug the slope m, $x\ 1$, and $y\ 1$ in to the Point-Slope Form

$$y - y\ 1 = m\ (x - x\ 1)$$