

4.4: Finding Slope and Rate of Change
“I WILL
...Graph a Linear Equation using Intercepts.”

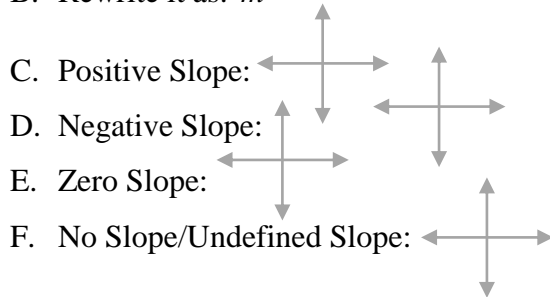
I. Definitions

- A. _____: A comparison of two numbers.
- B. _____ are equations that the highest power is raised to one.
- C. _____ is a non-vertical line between two points
- D. _____ is the vertical movement
- E. _____ is the horizontal movement

II. Slope Equation

A. Slope Equation: $m = \frac{y_2 - y_1}{x_2 - x_1}$

B. Rewrite it as: $m = \frac{\quad}{\quad}$

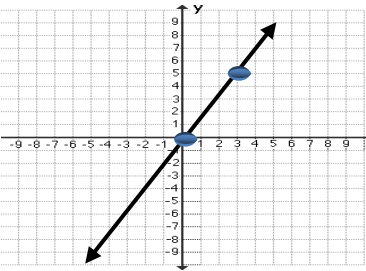
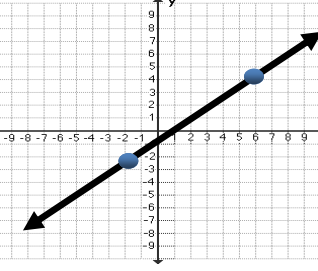
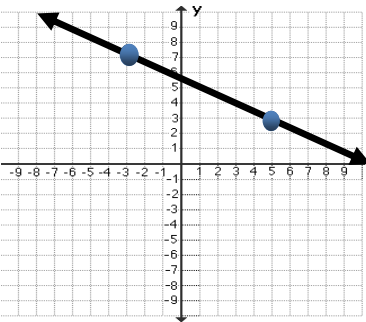


III. Steps

- A. When given two points, create a t-chart
- B. Subtract the Y-intercept first from top to bottom
- C. Subtract the X-intercept first from top to bottom
- D. Reduce the fraction

IV. Model Problems

Ex 1: What is the slope of this table? Will it rise, fall, horizontal, or vertical?					Ex 2: What is the slope of these two points, (-1, 3) and (2, -2)? Will it rise, fall, horizontal, or vertical?
<i>x</i>	3	5	6	10	
<i>y</i>	10	12	13	17	

<p>Ex 3: What is the slope of these two points, $(6, -4)$ and $(2, -2)$? Will it rise, fall, horizontal, or vertical?</p>	<p>Your Turn: What is the slope of these two points, $(2, 3)$ and $(-4, 5)$? Will it rise, fall, horizontal, or vertical?</p>	
<p>Ex 4: What is the slope of these two points, $(-2, 4)$ and $(4, 4)$? Will it rise, fall, horizontal, or vertical?</p>	<p>Ex 5: What is the slope of these two points, $(3, 5)$ and $(3, 1)$? Will it rise, fall, horizontal, or vertical?</p>	<p>Your Turn: What is the slope of these two points, $(0, 4)$ and $(-3, 4)$? Will it rise, fall, horizontal, or vertical?</p>
<p>Ex 6: Find the slope of the line below:</p> 	<p>Ex 7: Find the slope of the line below:</p> 	
<p>Ex 8: Find the slope of the line below:</p> 	<p>Your Turn: Find the slope of the line</p> 