Algebra I Monday 11-26-12 Class Notes

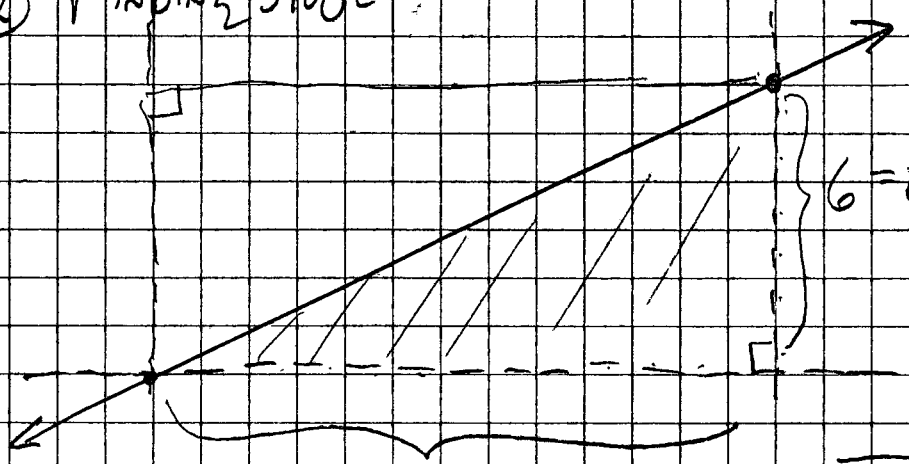
Recall:
- How to identify a linear function
- The Standard Form of a linear equation
- x and y intercepts (plus using $(x_{int}, 0), (0, y_{int})$ to graph a LE.

Ch 4-3 Rate of Change and Slope

$$\text{slope} = \frac{\text{rise}}{\text{run}} = \frac{\text{change in } y \updownarrow}{\text{change in } x \leftrightarrow}$$

Ch 4-4 The Slope Formula

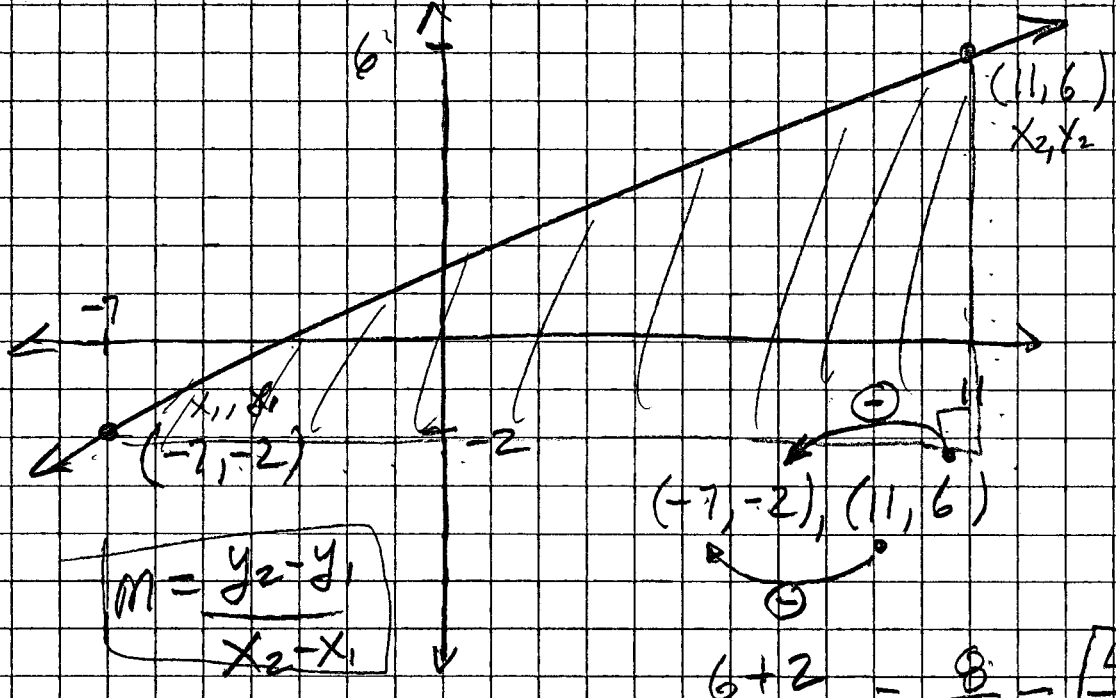
(Ex) Finding Slope



$$\frac{\text{rise}}{\text{run}} = \boxed{\frac{6}{13} = m}$$

$$\text{Slope} = \frac{\text{rise}}{\text{run}} = \frac{\text{change in } y}{\text{change in } x}$$

RATE = SLOPE WITH DIFFERENT UNITS for rise and run

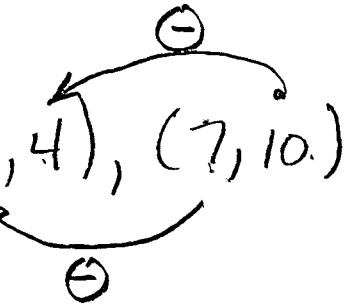


$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

(-7, -2), (11, 6)

$$\frac{6+2}{11+7} = \frac{8}{18} = \boxed{\frac{4}{9} = m}$$

(7) $(11,4), (7,10)$



$$\frac{10-4}{7-11} = \frac{6}{-4} = \boxed{-\frac{3}{2} = m}$$

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(9) $(14,9), (15,-7)$ $m = ?$

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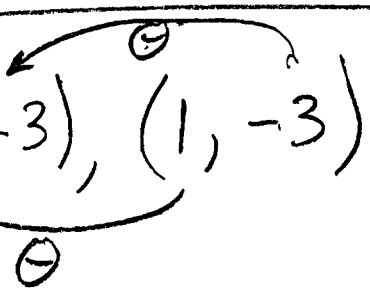
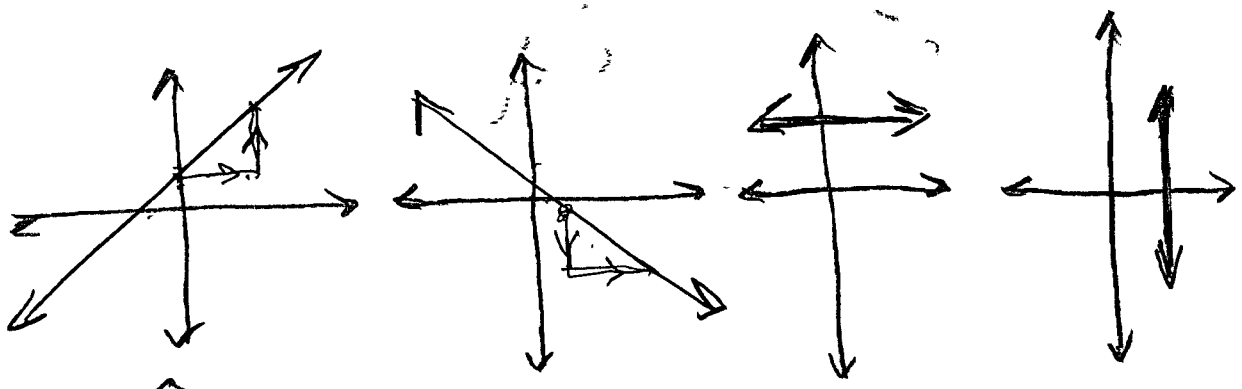
(13) $(-15,20), (-17,10)$ $m = ?$

(Ex) $(4,-3), (1,-3)$



$$\frac{-3+3}{1-4} = \frac{0}{-3} = \boxed{0 = m}$$



$m = (+)$ $m = (-)$ $m = 0$ $m =$ UNDEFINED

✓ ✓

HORIZONTAL VERTICAL

FUNCTION FUNCTION FUNCTION NOT A FUNCTION

KNOW THESE PROPERTIES OF SLOPE!