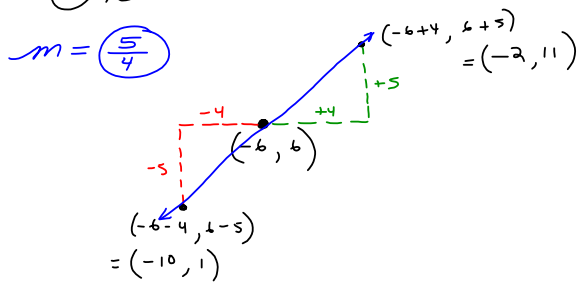
October 11, 2017

$m = \frac{5}{4}$



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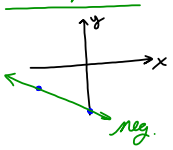
#12) $(-12, -5)$ & $(0, -8)$

Step ①



Step ②

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

$$= \frac{(-8) - (-5)}{(0) - (-12)}$$

$$= \frac{-3}{12} = -\frac{1}{4}$$

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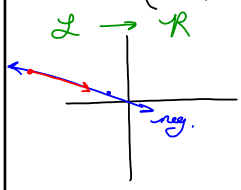
$(-3, 1)$ & $(-17, 2)$



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Equations of Lines

① Standard Form

$Ax + By = C$

- where $A, B, C \in \mathbb{Z}$

② Slope-Intercept Form

$y = mx + b$

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$Ax + By = C$; for y

$-Ax \quad -Ax$

$$By = C - Ax$$

$$\frac{By}{B} = \frac{C - Ax}{B}$$

$$y = \frac{C - Ax}{B}$$

$$y = -\frac{A}{B}x + \frac{C}{B}$$

"m" y-intercept

$$y = mx + b$$

Slope $(0, b)$

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#17) $y = -5x - 1$

m b

$m = -\frac{5}{1}$; $(0, -1)$

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#20) $\square x = 1$ $\quad ax + by = c$

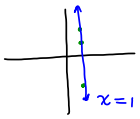
Slope: undefined

$x + 0 \cdot y = 1$

$-x \qquad -x$

$\frac{0y}{0} = \frac{-x}{0} + \frac{1}{0}$

x	y
1	2
1	-5
1	3



* Vertical lines have an undefined slope.

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