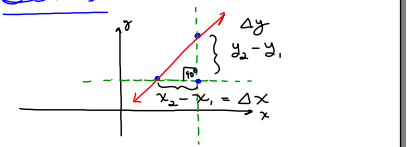
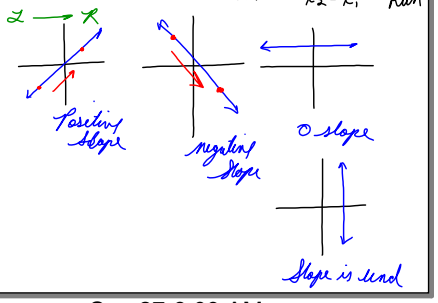
September 27, 2017

Lines



Slope $= m = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{\text{Rise}}{\text{Run}}$



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Equations of Lines

① S.F.: $Ax + By = C$

where A, B, & C are real numbers and are not fractions.

$4x + 3y = 9$

② $y = mx + b$ (Slope-Intercept)

m: slope; b: y-intercept $(0, b)$

$y = 2x - 5$

$m = \frac{2}{1} = 2$

y-int.: $(0, -5)$

③ $y - y_1 = m(x - x_1)$ (Point-Slope)

(x_1, y_1)

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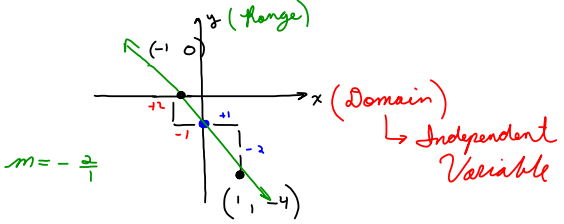
#1) $y = -2x - 2$

m: -2; y-int.: $(0, -2)$



$m = -\frac{2}{1}$

↳ Independent Variable

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