slope

Definition

Slope: ratio of the vertical change (change in y-coordinates) to the horizontal change (change in x-coordinates)

Formulas

Slope → $m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{\Delta y}{\Delta x} = \frac{\text{Rise}}{\text{Run}}$ ("Change in" → Δy, Δx; Rise ↕, Run ↔)

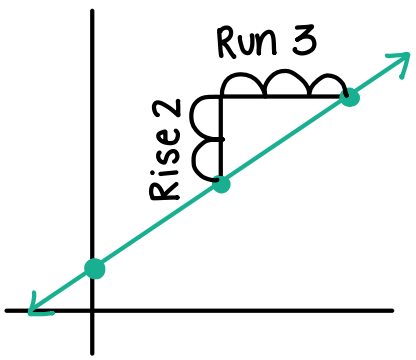
Finding Slope

A Graph:

REMEMBER:

Rise:	Run:
UP = ⊕	RIGHT = ⊕
DOWN = ⊖	LEFT = ⊖

Pick any 2 points



$m = \frac{\text{rise}}{\text{run}} = \boxed{\frac{2}{3}}$

Two Points:

Label (x_1, y_1) (x_2, y_2)

$(3, -5)$ $(-7, 2)$

Plug into formula

$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{2-(-5)}{-7-3} = \frac{2+5}{-10} = \boxed{-\frac{7}{10}}$

Types of Slope