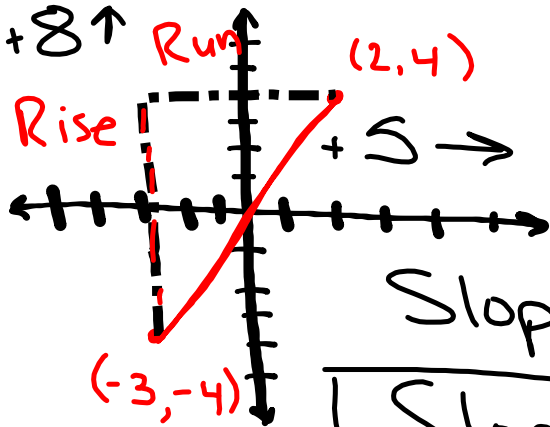


Slope Δ's

$$\text{Slope} = \frac{\text{Rise}}{\text{Run}}$$



* Way for us to find Slope using Δ's w/out using a formula.

$$\text{Slope} = \frac{\text{Rise}}{\text{Run}}$$

$$\text{Slope} = \frac{8}{5}$$

Slope

$$\begin{matrix} (-3, -4) \\ x_1, y_1 \\ (2, 4) \\ x_2, y_2 \end{matrix}$$

$$\frac{y_2 - y_1}{x_2 - x_1} = \frac{4 - (-4)}{2 - (-3)} = \frac{8}{5}$$

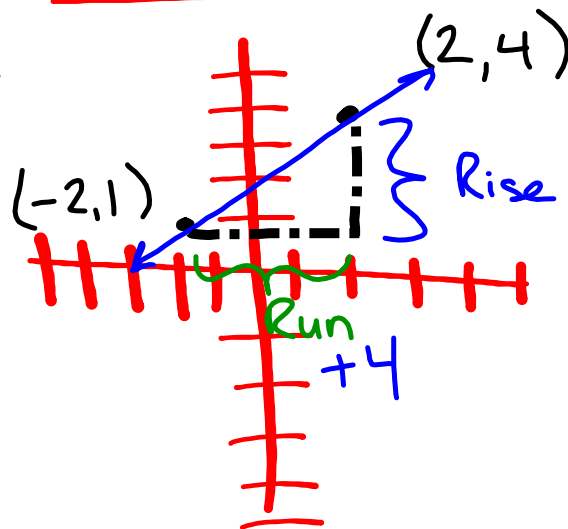
$$4 - 4$$

* Common error not including the negative

Slope Δ 's

$$\text{Slope} = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{4 - 1}{2 - (-2)} = \boxed{\frac{3}{4}}$$

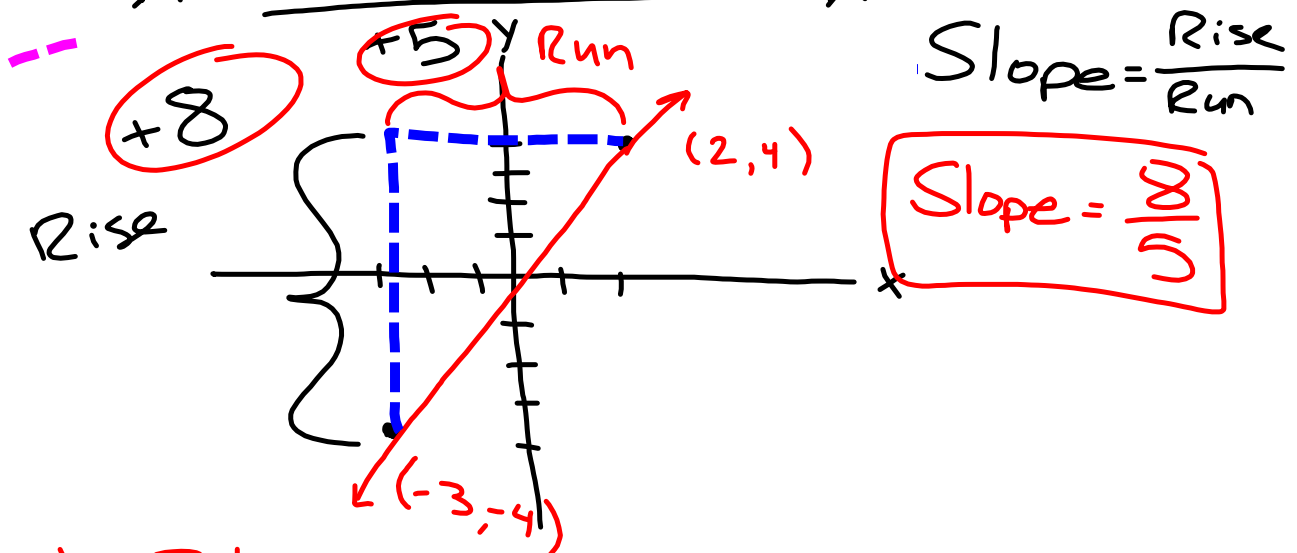


$$\text{Slope} = \frac{\text{Rise}}{\text{Run}}$$

$$\boxed{\text{Slope} = \frac{3}{4}}$$

Def: Slope Δ 's are used to find the Slope w/out using the formula.

★ Slope Δ's ★

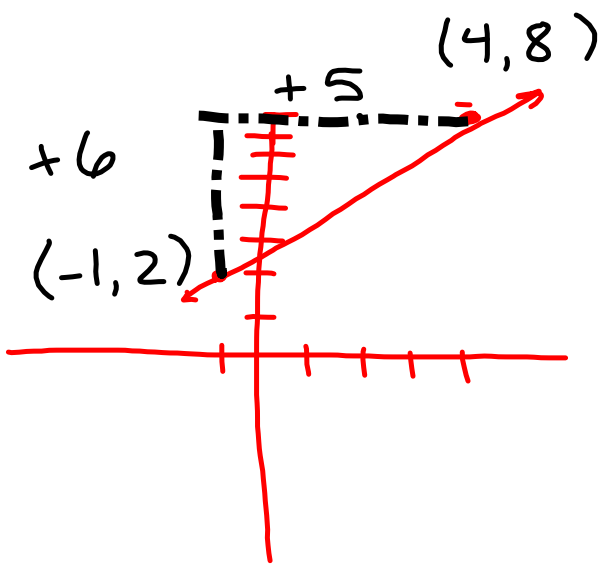


* Slope Δ's are used as a short-cut to finding slopes instead of using the formula.

$$\begin{array}{ccc} (-3, -4) & \& & (2, 4) \\ \color{red}{x_1} & \color{red}{y_1} & & \color{red}{x_2} & \color{red}{y_2} \end{array}$$

$$\underline{\text{Slope}} = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{4 - (-4)}{2 - (-3)} = \boxed{\frac{8}{5}}$$



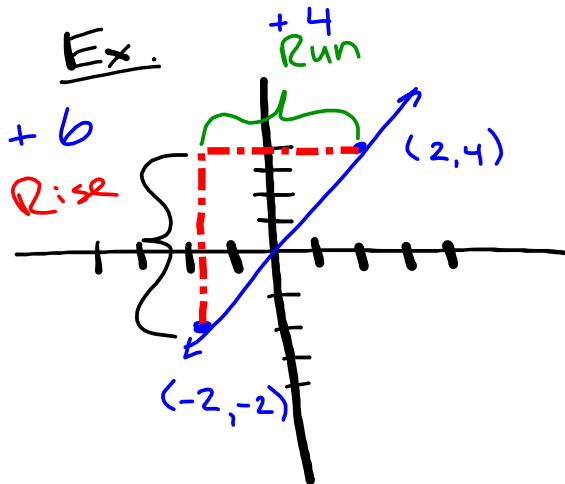
$$\begin{matrix} x_1 & y_1 & & x_2 & y_2 \\ (-1, 2) & & & (4, 8) \end{matrix}$$

$$\text{Slope} = \frac{\text{Rise}}{\text{Run}} = \frac{y_2 - y_1}{x_2 - x_1}$$

$$\frac{6}{5} = \frac{8 - 2}{4 - (-1)} = \frac{6}{5}$$

Slope Δ 's

* Slope Δ 's are used to find Slopes of lines from a graph w/out using the formula.



$(2, 4)$ & $(-2, -2)$

Slope = $\frac{\text{Rise}}{\text{Run}}$

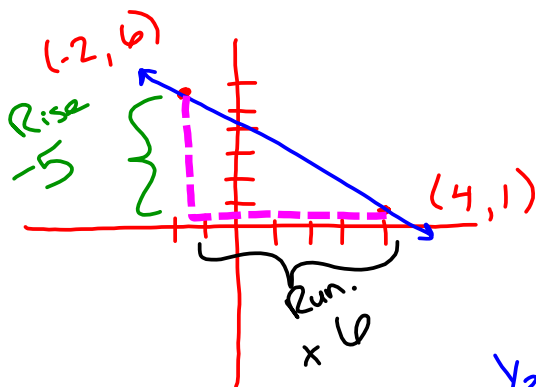
Slope = $\frac{6}{4}$

Slope = $\frac{3}{2}$

$(2, 4)$ & $(-2, -2)$
 $x_1 \quad y_1 \quad \quad \quad x_2 \quad y_2$

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

$\frac{-2 - 4}{-2 - 2} = \frac{-6}{-4} = \frac{6}{4} = \frac{3}{2}$

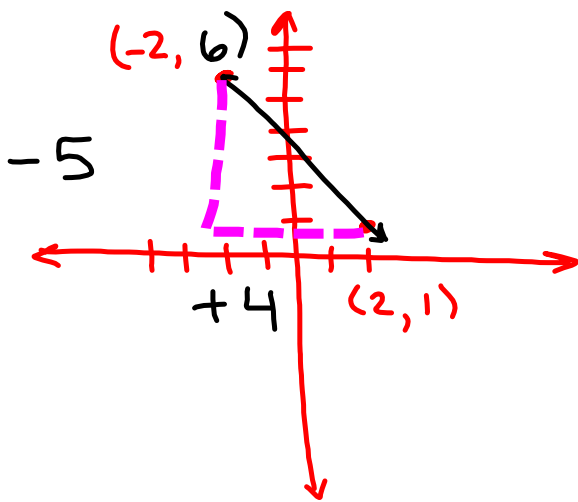


$(-2, 6)$ & $(4, 1)$

Slope = $\frac{\text{Rise}}{\text{Run}}$

Slope = $\frac{-5}{6}$

$\frac{y_2 - y_1}{x_2 - x_1} = \frac{1 - 6}{4 - (-2)} = \frac{-5}{6}$



$$\text{Slope} = \frac{\text{Rise}}{\text{Run}} = \frac{y_2 - y_1}{x_2 - x_1}$$
$$\frac{-5}{4} = \frac{1 - 6}{2 - (-2)}$$

Intercepts - A function/equation
can & will have an x &
 y intercept.

* Intercepts are where you
cross the x , or y axis.

* x-intercept is where
you cross or touch the x -axis.

* y-intercept is where you cross
or touch your y -axis.

