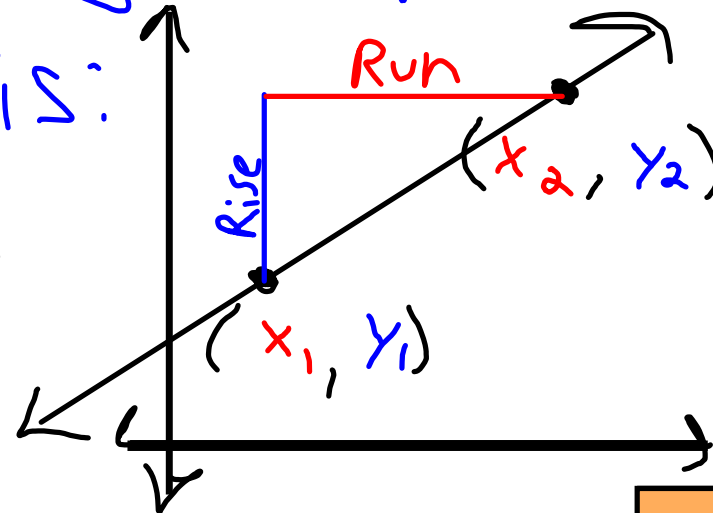


4.5 cont. slope

Feb. 07, 2007

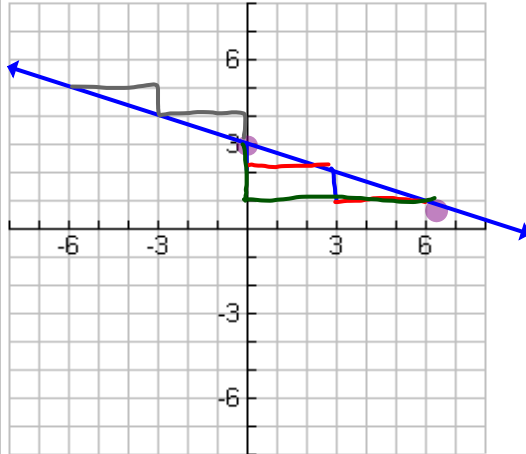
Slope: The slope m of a line that passes through the points (x_1, y_1) and (x_2, y_2) is:

$$m = \text{slope} = \frac{\text{rise}}{\text{run}} = \frac{\text{change in } y}{\text{change in } x}$$
$$= \frac{y_2 - y_1}{x_2 - x_1}$$



Find the Slope of the line that
Passes through the Points: $(0, 3)$, $(6, 1)$

$$m = \text{slope} = \frac{\text{rise}}{\text{run}} = \frac{\text{change in } y}{\text{change in } x} = \frac{y_2 - y_1}{x_2 - x_1}$$

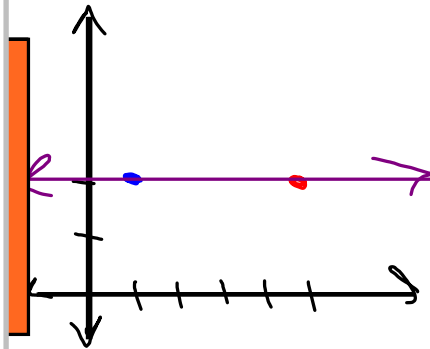


$$= \frac{1 - 3}{6 - 0} = \frac{-2}{6} = -\frac{1}{3}$$

Find the slope of the line that passes through the points:

$(1, 2) + (5, 2)$

$$m = \text{slope} = \frac{\text{rise}}{\text{run}} = \frac{\text{change in } y}{\text{change in } x} = \frac{y_2 - y_1}{x_2 - x_1}$$
$$= \frac{2 - 2}{5 - 1} = \frac{0}{4} = \underline{\underline{0}}$$

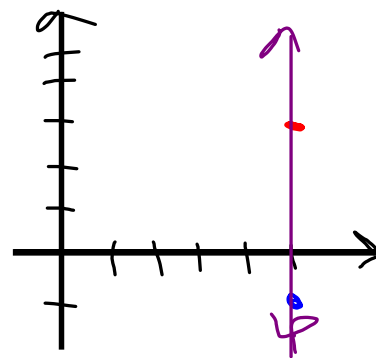


0 Slope for
horizontal Lines

Find the Slope of the line that
Passes Through the Points:

$(5, -1)$ & $(5, 3)$

$$m = \text{Slope} = \frac{\text{rise}}{\text{run}} = \frac{\text{change in } y}{\text{change in } x} = \frac{y_2 - y_1}{x_2 - x_1}$$



$$= \frac{3 + 1}{5 - 5} = \frac{4}{0} = \text{undefined}$$

No Slope! for
a Vertical Line

O.T.L.

- ① pg 232: Put "Summary" Box at the Bottom of the Page into Notes. w/ Pictures!
- ② Correct previous day's O.T.L.
- ③ pg 233: 1-12(411) + 19-22(411) + 24-36(411)