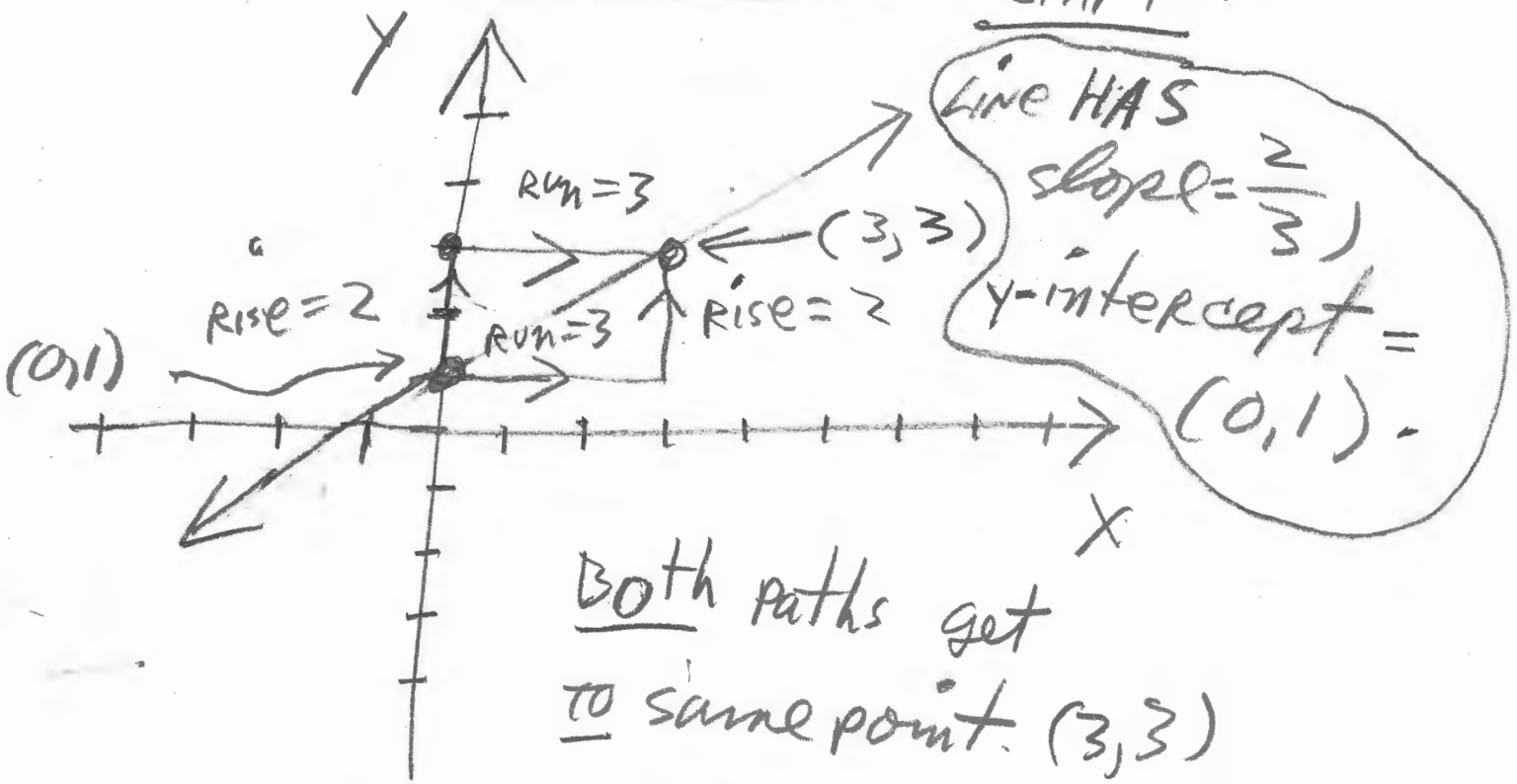
7-3-14

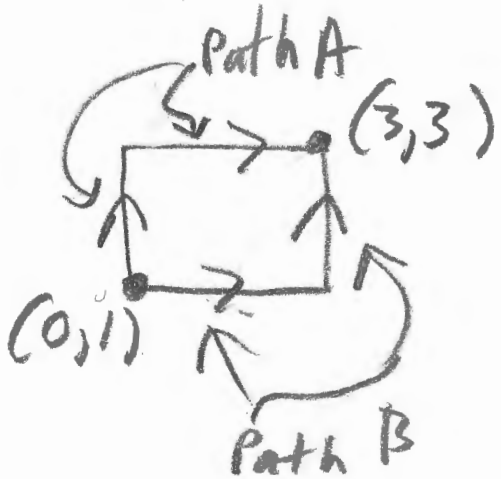
supplementary notes:

Secs. 3.5, 3.6

3.5 | My example

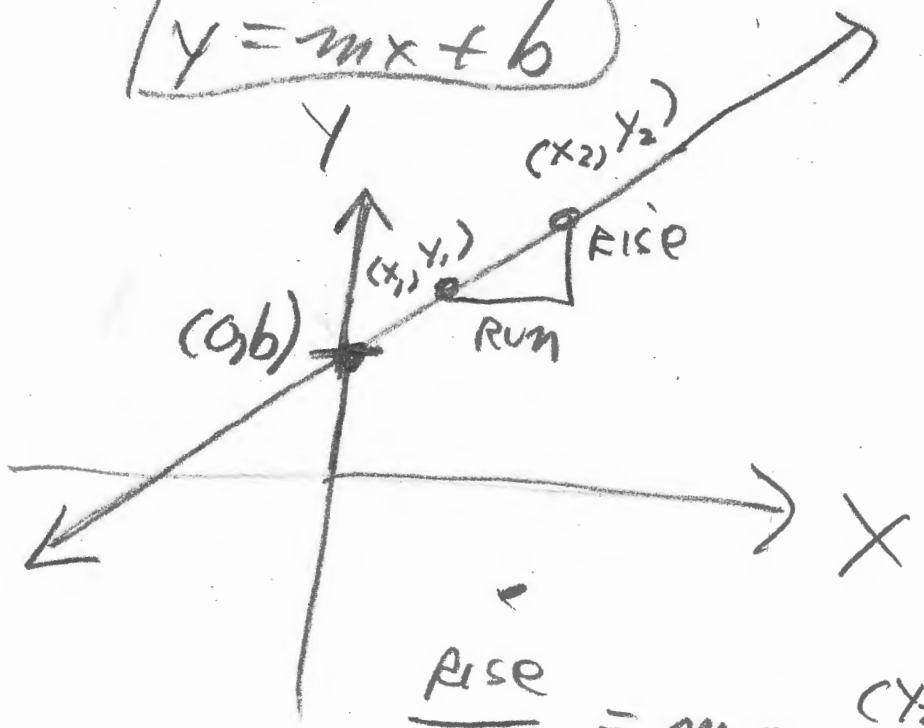


Both paths get to same point (3,3) from (0,1)



3.6 slope-intercept form.

$y = mx + b$



$$\frac{\text{Rise}}{\text{Run}} = m = \frac{(y_2 - y_1)}{(x_2 - x_1)}$$

note: set $x = 0$

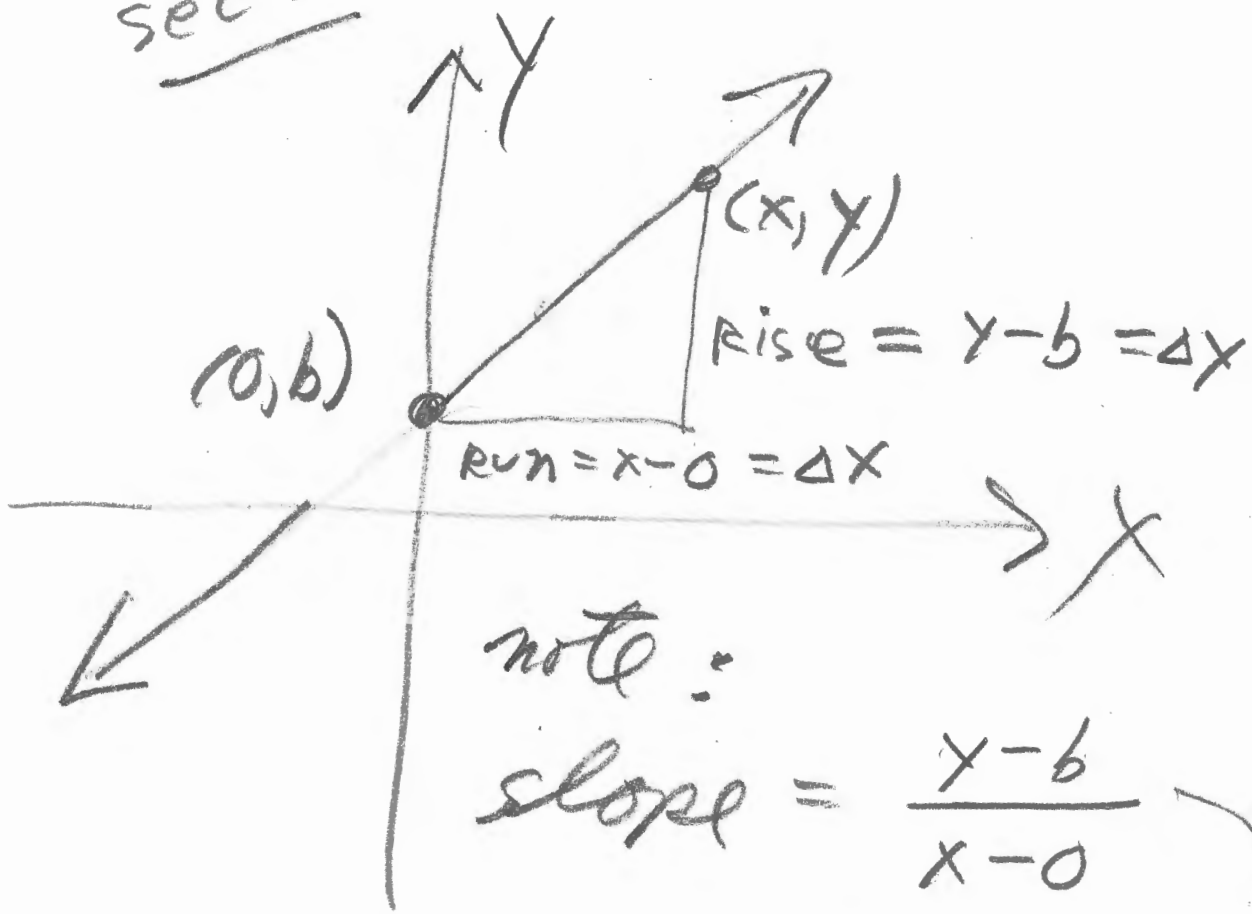
$y = m \cdot 0 + b$

$y = 0 + b$

$y = b \Rightarrow (0, b)$

= y-intercept

sec 3.6



note:

$$\text{slope} = \frac{y-b}{x-0}$$

$$= \frac{\Delta y}{\Delta x}$$

$$m = \frac{y-b}{x}$$

CLEAR FRACTION!

$$mx = y - b$$

$$\boxed{mx + b = y}$$

$$y = mx + b$$

(19.) $y = -\frac{2}{7}x + 5$

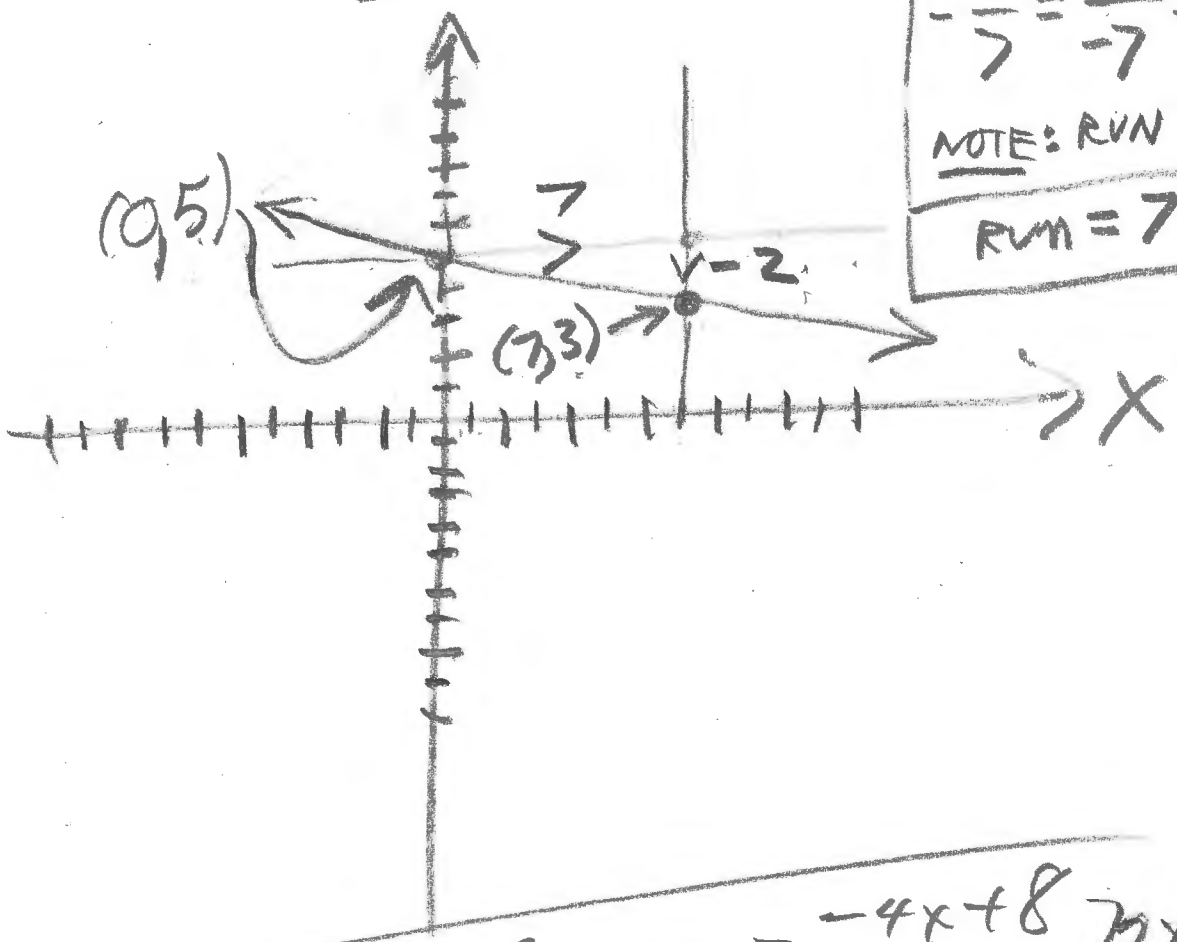
graph it:

$m = \frac{\text{RISE}}{\text{RUN}} = \frac{-2}{7}$

$-\frac{2}{7} = \frac{2}{-7} = \frac{-2}{7}$

NOTE: RUN > 0

RUN = 7 > 0



(27.) $-\sec 3.6$

$2y = -4x + 8$

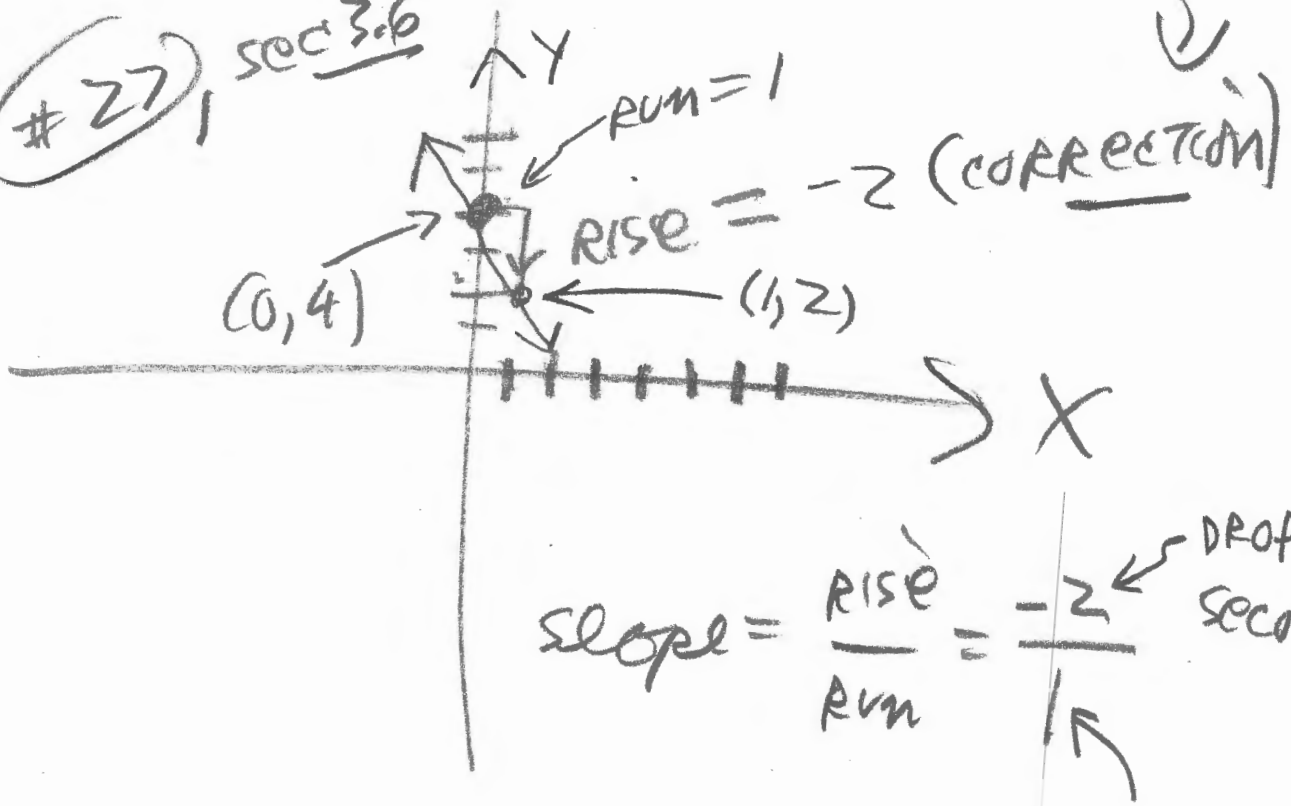
$\frac{2y}{2} = -\frac{4x}{2} + \frac{8}{2}$

$\frac{2y}{2} = \frac{-4x+8}{2}$

$y = -2x + 4$

correction:

#27) sec 3.6



$$\text{slope} = \frac{\text{RISE}}{\text{RUN}} = \frac{-2}{1} \quad \text{DROP / second}$$

RUN FIRST