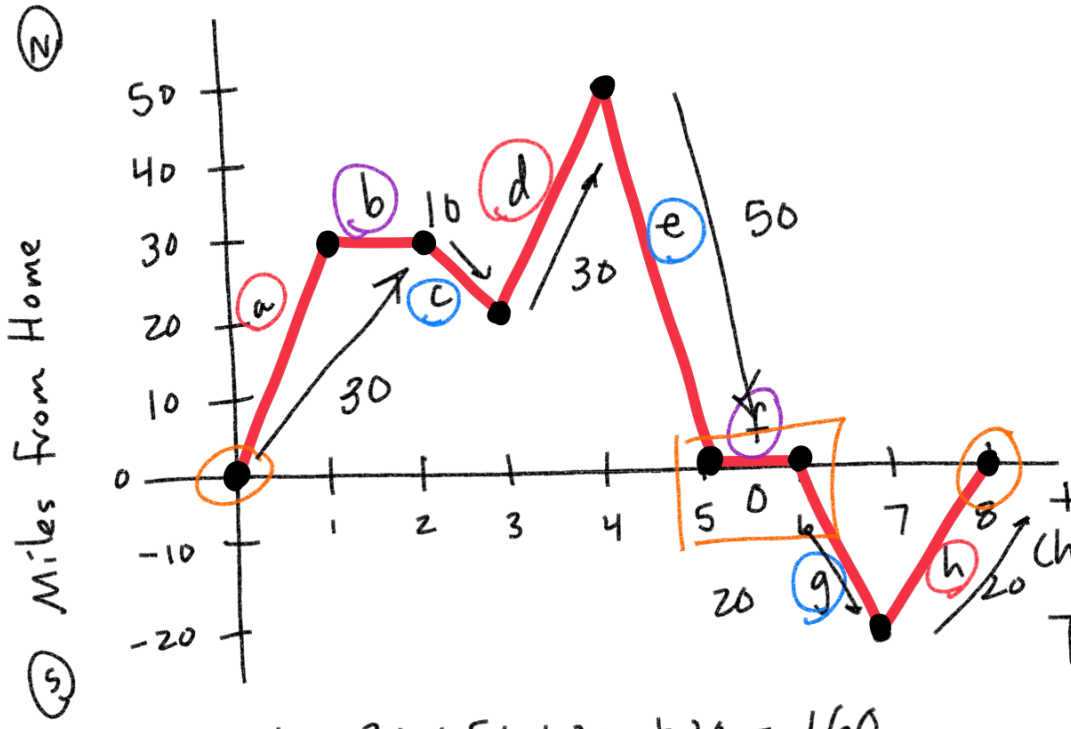
TH-A1 Algebra 1 Week 25 3/21



When increasing?
a, d, h

When decreasing?
c, e, g

When constant?
b, f

When home?
5-6 (f)
t = 0, 8

Total distance traveled?
160 miles

$30+10+30+50+20+20=160$

Which of the following is a function?

If so, state the domain and range.

x-input

a) (1,2), (2,4), (3,6), (4,8)

Every input has one, and only one, output

function

Domain x's $\{1,2,3,4\}$ Range y's $\{2,4,6,8\}$

b) (0,-3), (1,-3), (2,-3), (3,-3)

yaw! function

Domain $\{0,1,2,3\}$ Range $\{-3\}$

c) (-1,2), (-2,6), (1,-2), (2,-6)

yaw! functin

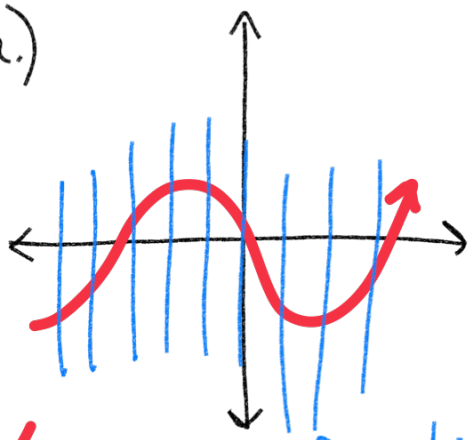
Domain: $\{-1,-2,1,2\}$ Range $\{-6,-2,2,6\}$

x's y's

d) (0,4), (1,3), (1,5), (2,8)

Naw!

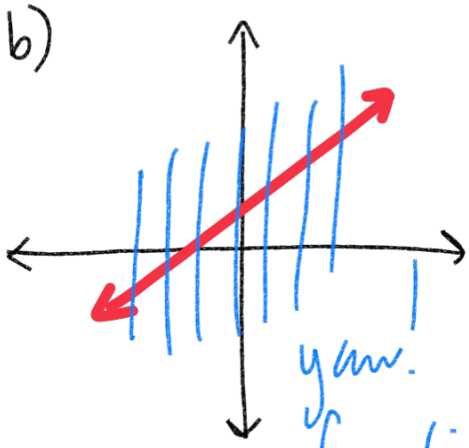
a.)



✓

function

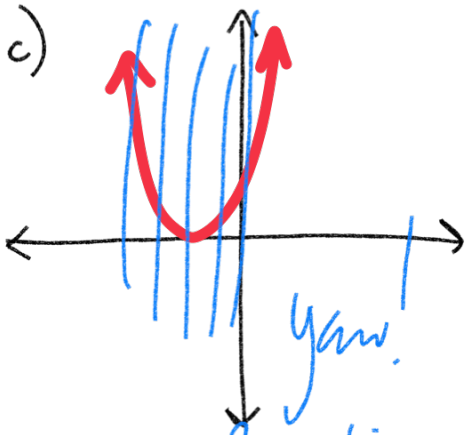
b)



yaw.

function

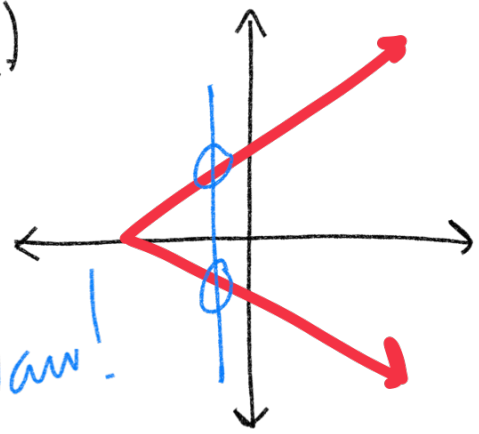
c)



yaw.

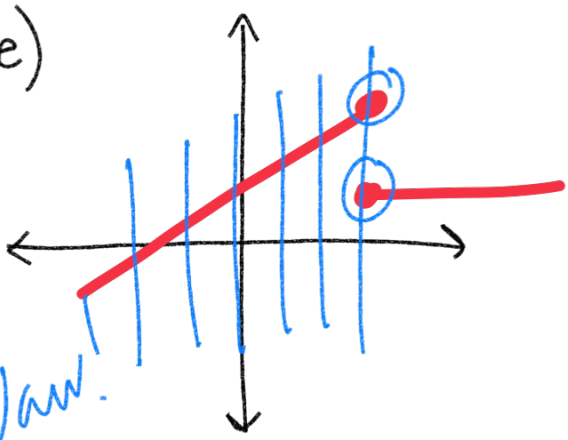
function.

d)



Naw.

e)



Naw.

$y = 2x + 3$

input $(x) \rightarrow 5$

output $(y) \rightarrow 13$

$x = 5$

$y = 2(5) + 3$

$10 + 3$

$y = 13$

input $(x) \rightarrow 8$

output $(y) \rightarrow 19$

$x = 8$

$y = 2(8) + 3$

$16 + 3$

$y = 19$

input $(x) \rightarrow -3$

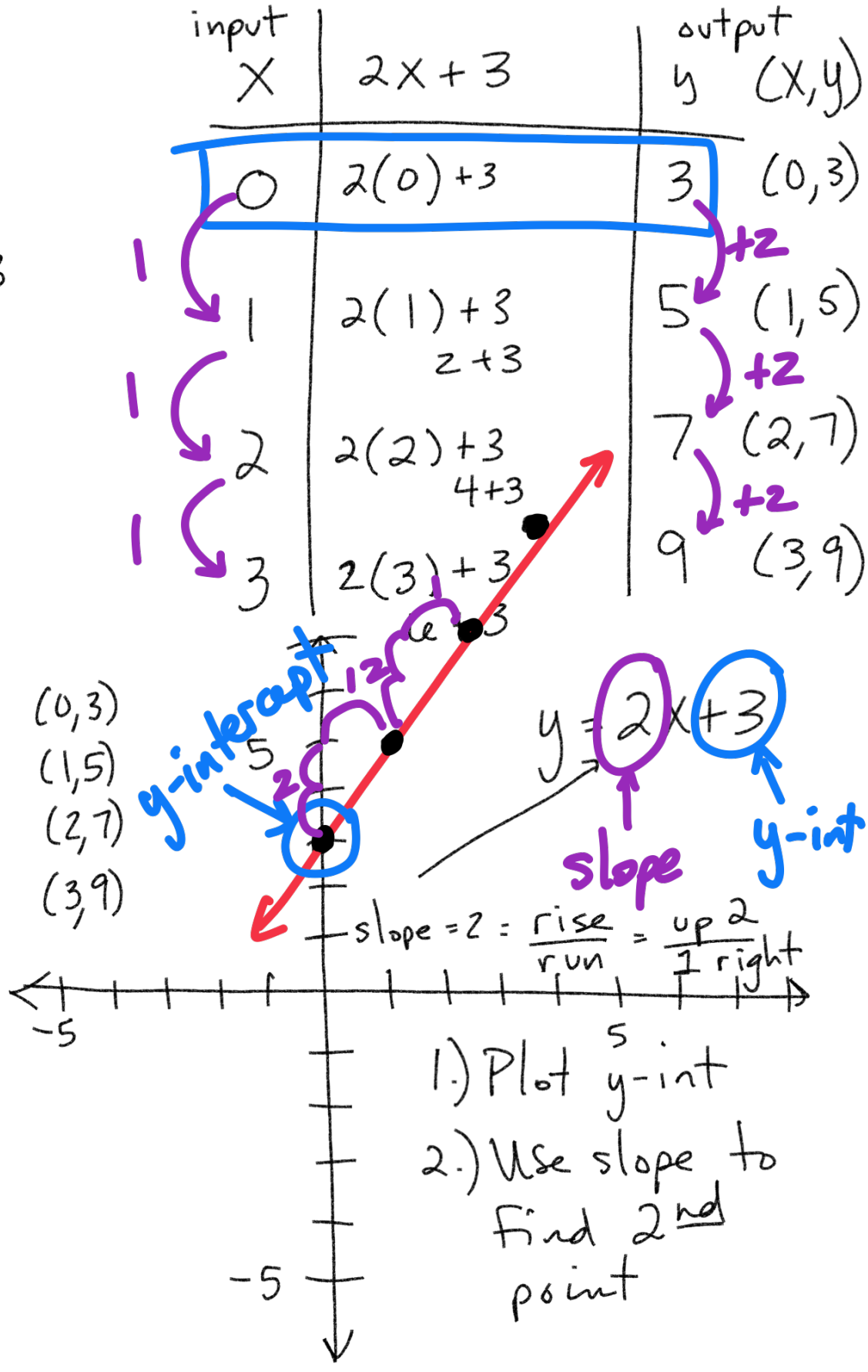
output $(y) \rightarrow -3$

$x = -3$

$y = 2(-3) + 3$

$-6 + 3$

$y = -3$



Slope-Intercept form

$y = mx + b$

$y = \frac{3}{2}x - 4$

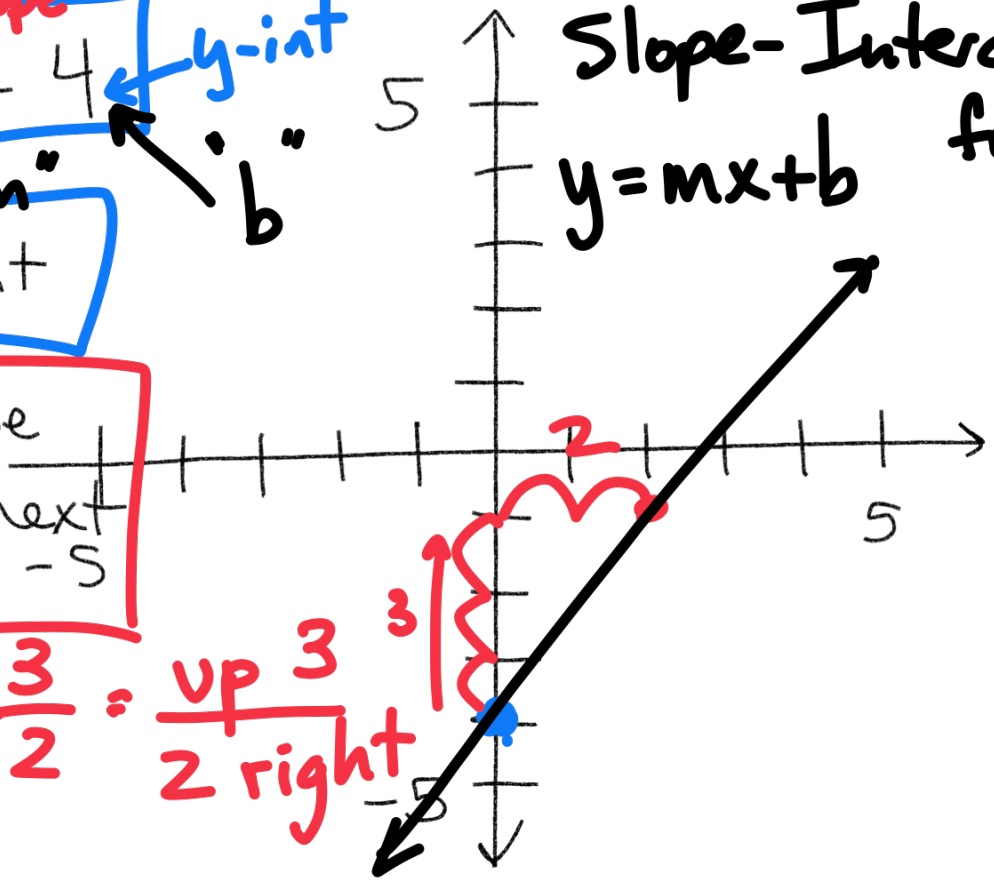
slope: $\frac{3}{2}$ — "m"

y-int: -4 — "b"

1.) Plot y-int

2.) Use slope to find next point

slope $= \frac{3}{2} = \frac{\text{up } 3}{2 \text{ right}}$



$y = -3x + 4$

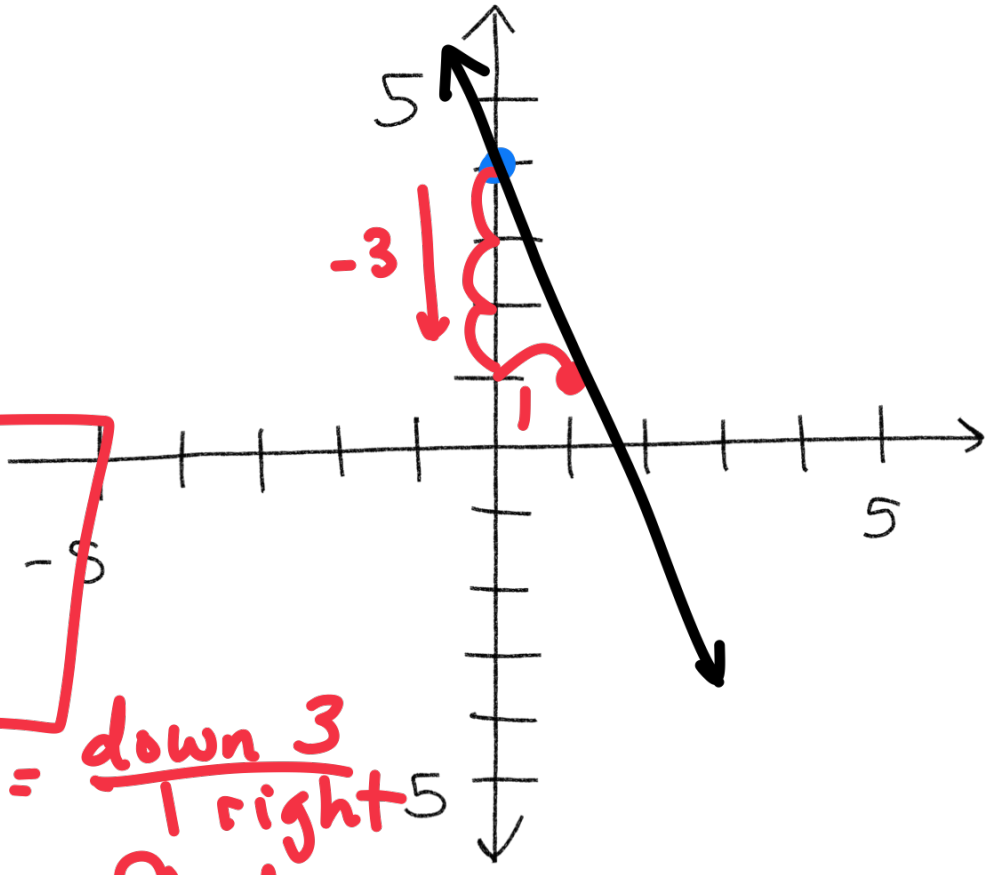
$y = mx + b$

1.) Plot y-int

2.) Find next point using slope

slope $= \frac{-3}{1} = \frac{\text{down } 3}{1 \text{ right}}$

$\frac{\oplus}{\text{right}}$ up $\quad \frac{\ominus}{\text{right}}$ down



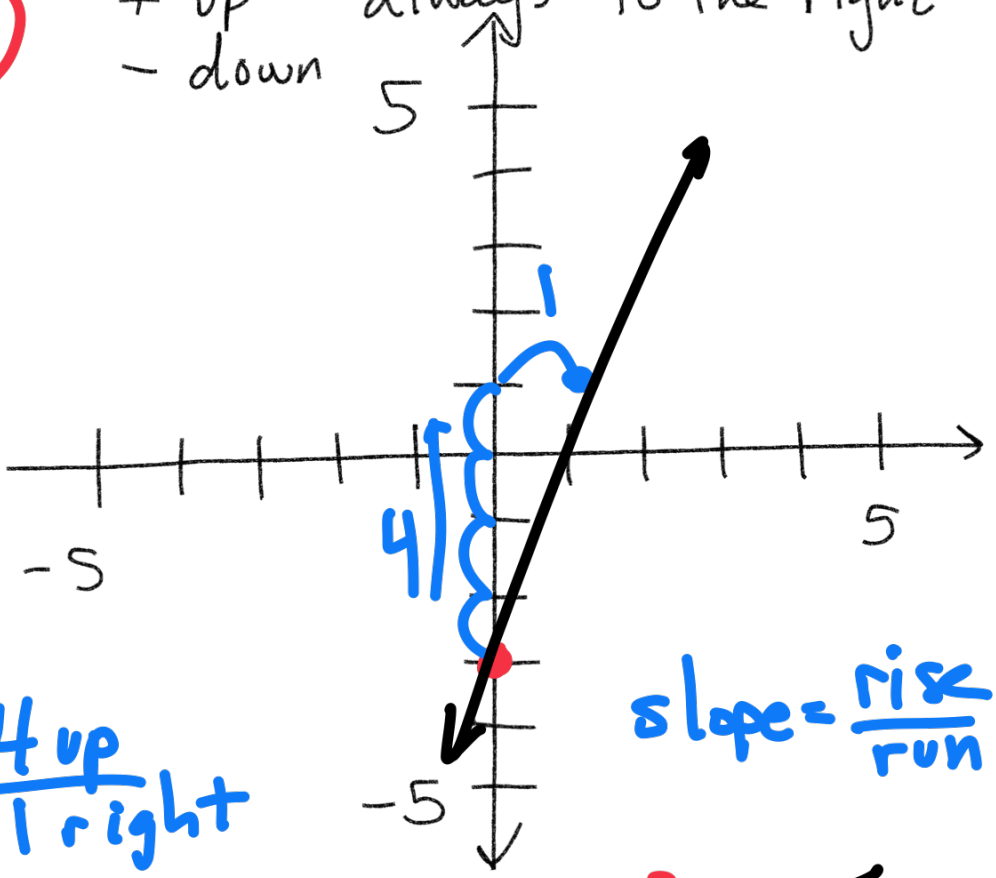
1.) $y = 4x - 3$

+ up
− down

always to the right

1.) Plot y-int

2.) Use slope to find next point

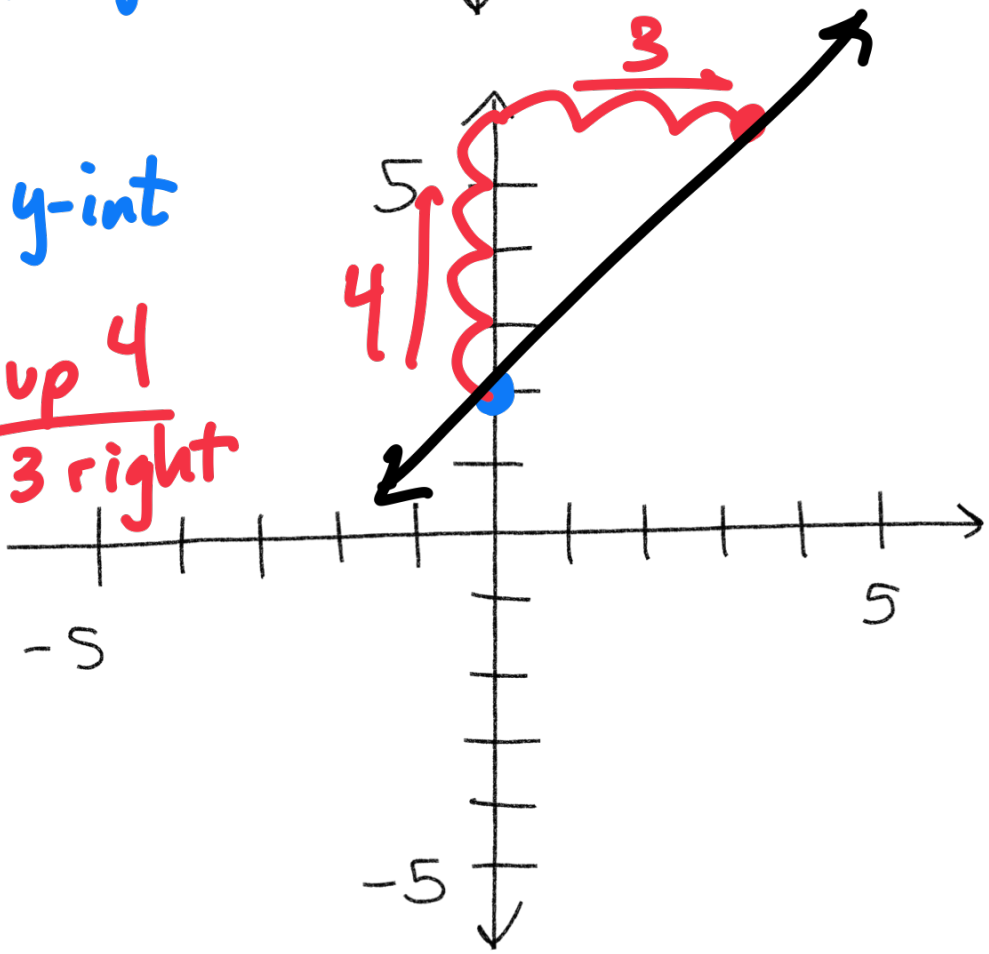


slope = $\frac{4}{1} = \frac{4 \text{ up}}{1 \text{ right}}$

slope = $\frac{\text{rise}}{\text{run}}$

$y = \frac{4}{3}x + 2$ ← y-int

slope = $\frac{4}{3} \rightarrow \frac{\text{up } 4}{3 \text{ right}}$



$y = -\frac{2}{3}x + 5$

y-int

slope = $\frac{-2}{3}$ → $\frac{\text{down } 2}{3 \text{ right}}$