1.1 Linear Equations

$y = 2x + 3$ Linear

$y = x^2 + 4$ Quadratic x^2

$y = \frac{2}{x}$ x in denominator

p10 50.

2200

Add 70 each year

x years

y enrollment

x years	y enrollment	
0	2200	+70
1	2270	+70
2	2340	+70
3	2410	+70
4	2480	+70

(+1 between 0 and 1; +1 between 1 and 2)

$y = 70x + 2200$

1.2 Slope

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

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

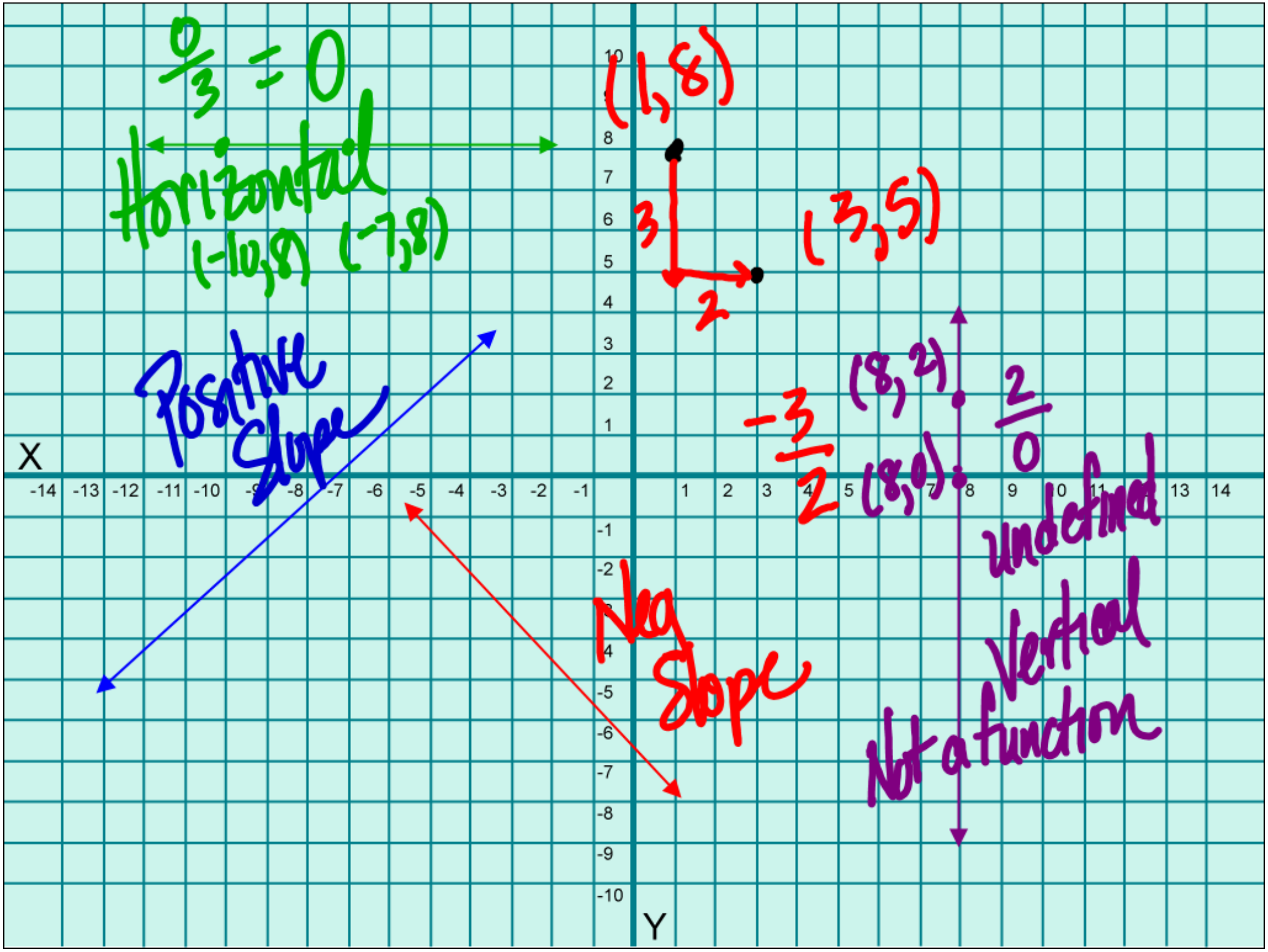
$\overset{x}{3}, \overset{y}{5}$ $\quad (1, 8)$

$$m = \frac{8-5}{1-3}$$

$$m = \frac{3}{-2}$$

$$m = \frac{-3}{2}$$

$$m = -\frac{3}{2}$$


0/3 = 0
Horizontal
(-10,8) (-7,8)
(1,8)
3
2
(3,5)
Positive Slope
-3/2
(8,2)
(8,0)
2/0
undefined
Vertical
Not a function
Neg Slope
X
Y

$2x + 3y = 6$ Standard Form

$3y = -2x + 6$

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

y-intercept

$2x + 3y = 6$

$2(0) + 3y = 6$

$y = 2$

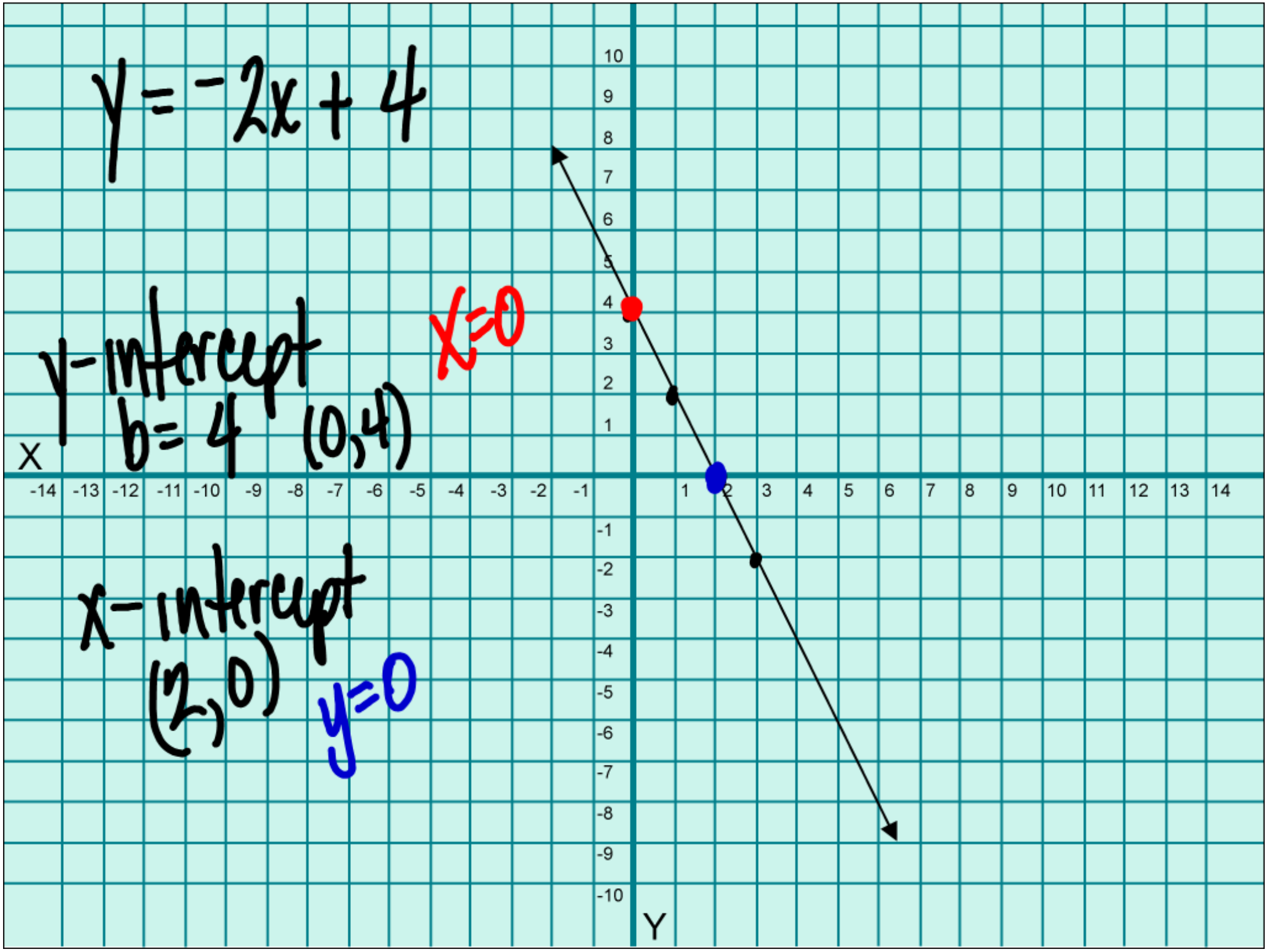
y-intercept
$x = 0$

$2x + 3y = 6$

$2x + 3(0) = 6$

$x = 3$

x-intercept
$y = 0$


y = -2x + 4
y-intercept
b = 4 (0,4)
x=0
x-intercept
(2,0)
y=0
X
Y

p 18 65, 68