

$$16. \quad 3x - 2y = 12$$

$$\begin{array}{l} \text{x-intercept} \\ y=0 \end{array} \quad 3x - 2(0) = 12$$

$$\frac{3x}{3} = \frac{12}{3}$$

$$x = 4 \quad (4, 0)$$

$$\begin{array}{l} \text{y-intercept} \\ x=0 \end{array} \quad 3(0) - 2y = 12$$

$$\frac{-2y}{-2} = \frac{12}{-2}$$

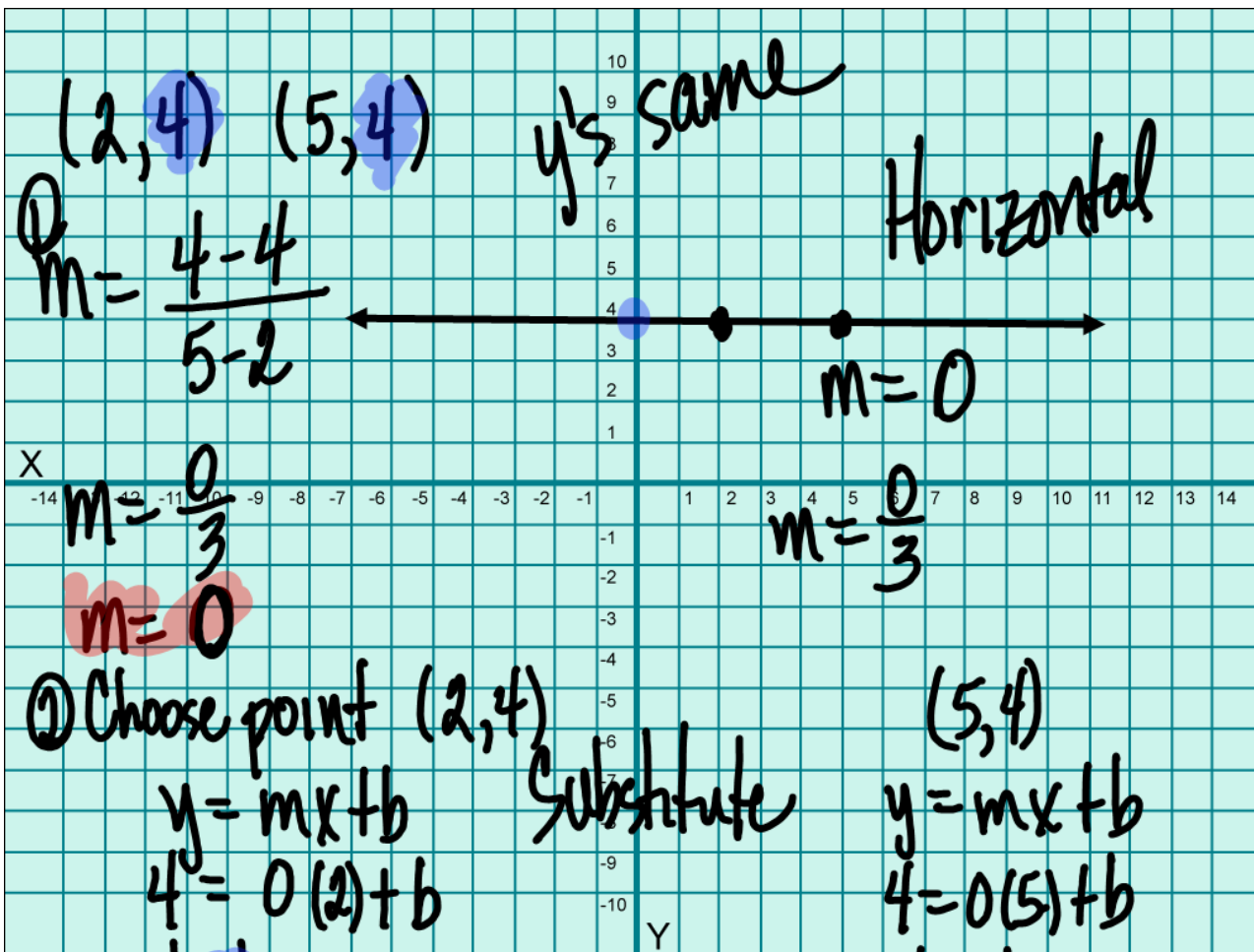
$$y = -6 \quad (0, -6)$$

$$18. \quad x = 2y$$

$$\frac{0}{2} = \frac{2y}{2}$$

$$0 = y \quad (0, 0)$$

$$\begin{array}{l} x = 2(0) \\ x = 0 \end{array} \quad (0, 0)$$



① Choose point (2, 4)

$$y = mx + b$$

$$4 = 0(2) + b$$

$$4 = b$$

Substitute

(5, 4)

$$y = mx + b$$

$$4 = 0(5) + b$$

$$4 = b$$

$$y = mx + b$$

$$y = 0x + 4$$

$$y = 4$$

$$20. 2x + 6y = 18$$

x-intercept

$$y=0$$

$$2x + 6(0) = 18$$

$$\frac{2x}{2} = \frac{18}{2}$$

$$x = 9$$

(x, y)

(9, 0)

y-intercept

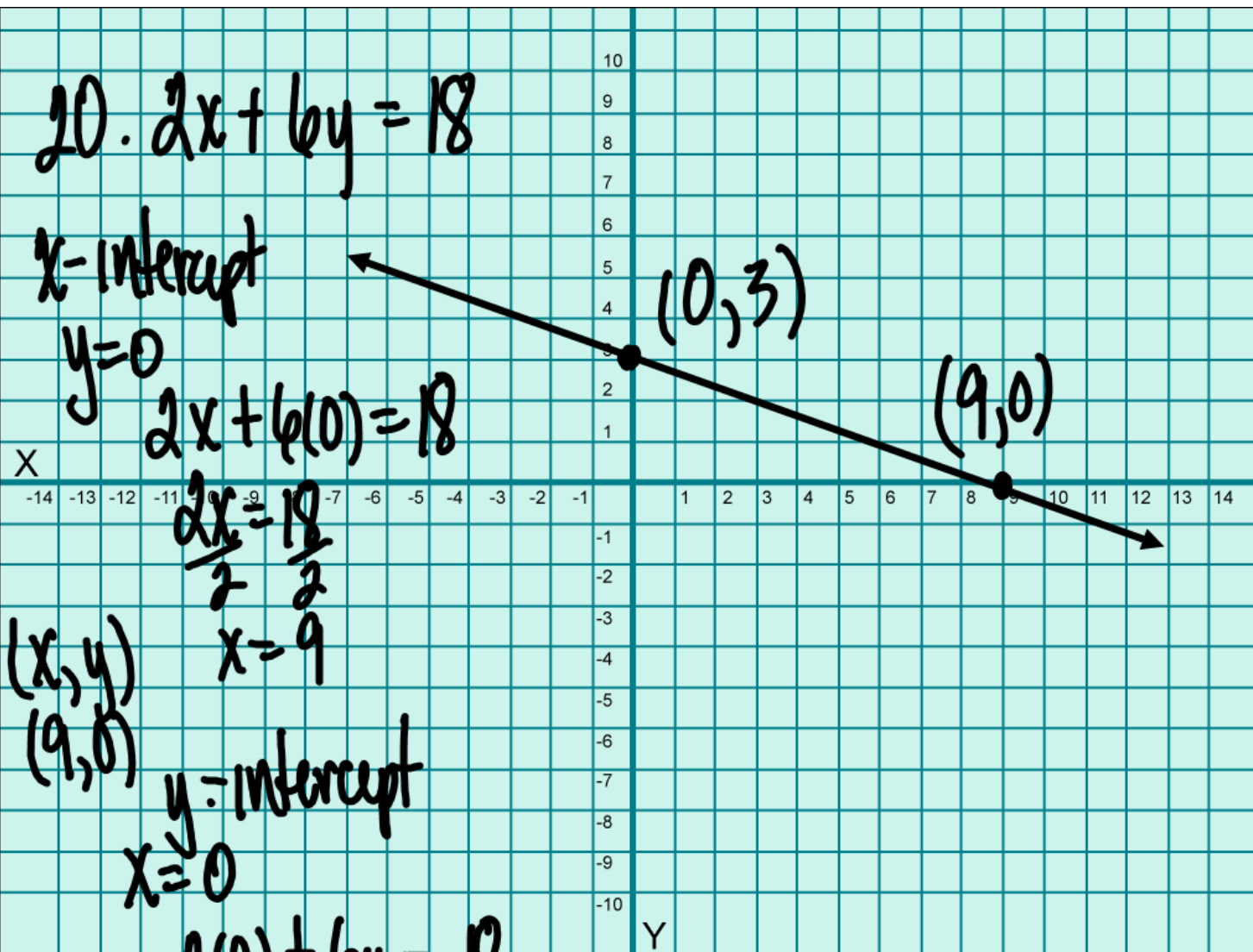
$$x=0$$

$$2(0) + 6y = 18$$

$$\frac{6y}{6} = \frac{18}{6}$$

$$y = 3$$

(x, y)
(0, 3)



Slope

Slope-intercept form

$$y = mx + b$$

$$6x + 2y = 40$$

$$\frac{2y}{2} = \frac{-6x}{2} + \frac{40}{2}$$

$$y = -3x + 20$$

$$m = -3$$

25. Slope-Intercept Form

$$y = mx + b$$

$$y = \frac{-2}{7}x + 2$$

X

-14 -13 -12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 1 2 3 4 5 6 7 8 9 10 11 12 13 14

-1

-2

-3

-4

-5

-6

-8

-9

-10

Y

(0, 2)

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

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

24.

$$m = -8$$

$$y = mx + b$$

$$2 = -8(5) + b$$

X

$$2 = -40 + b$$

+40

+40

$$42 = b$$

$$y = -8x + 42$$

10

9

8

7

6

5

4

3

2

1

-1

-2

-3

-4

-5

-6

-7

-8

-9

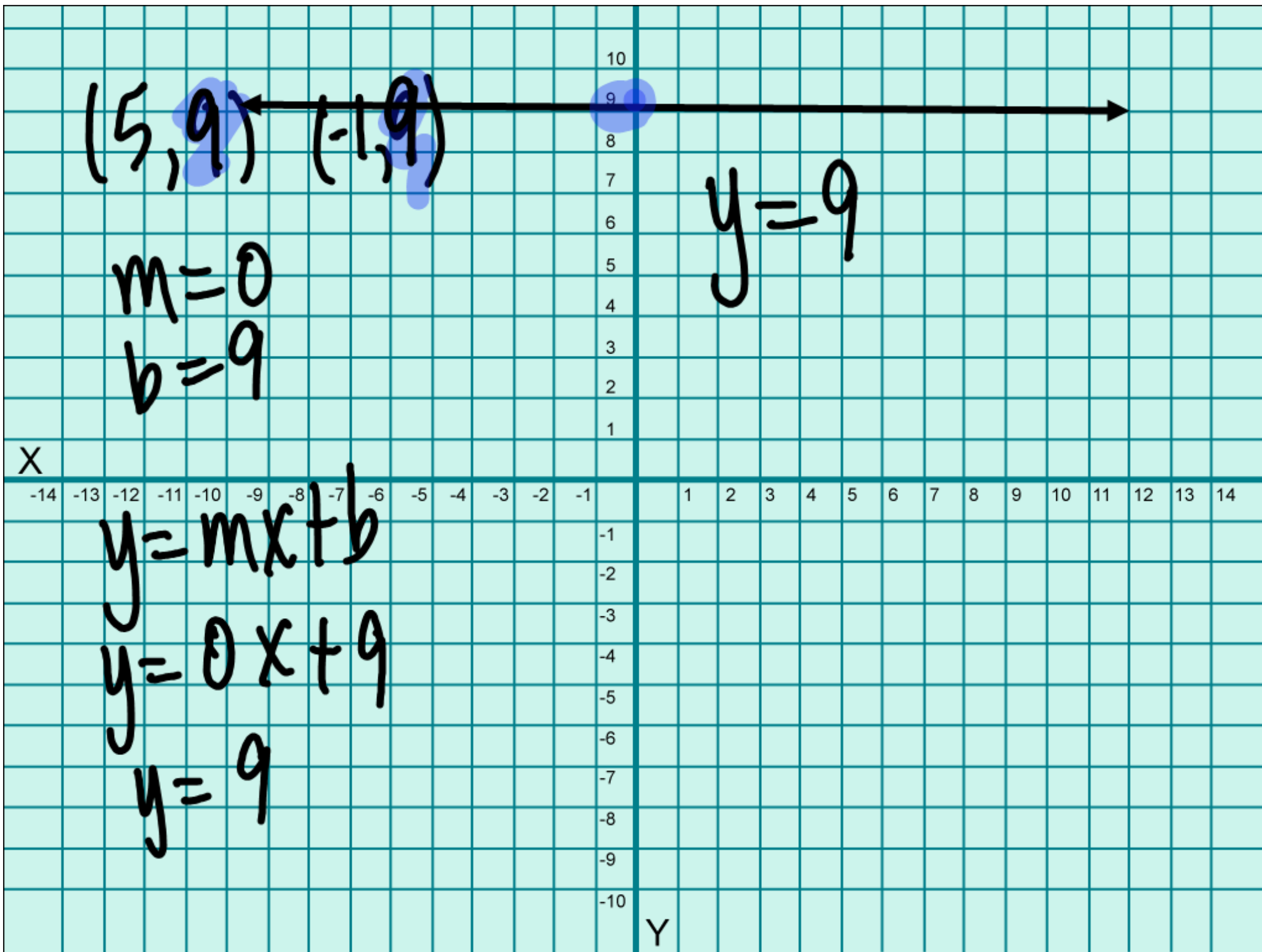
-10

Y



$$(x, y)$$

$$(5, 2)$$

$(3, 1)$ $(3, 5)$

$x = 3$

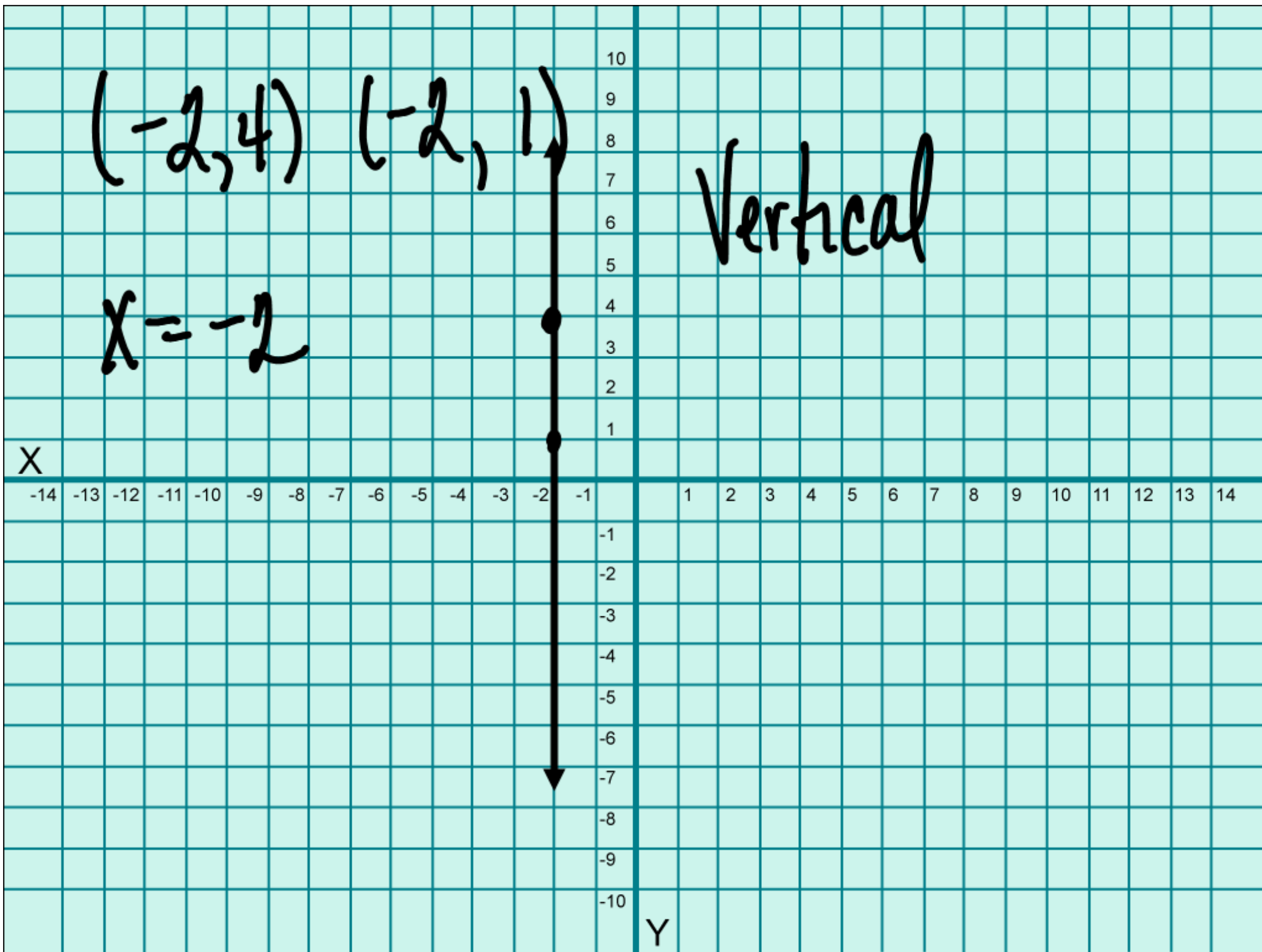
X

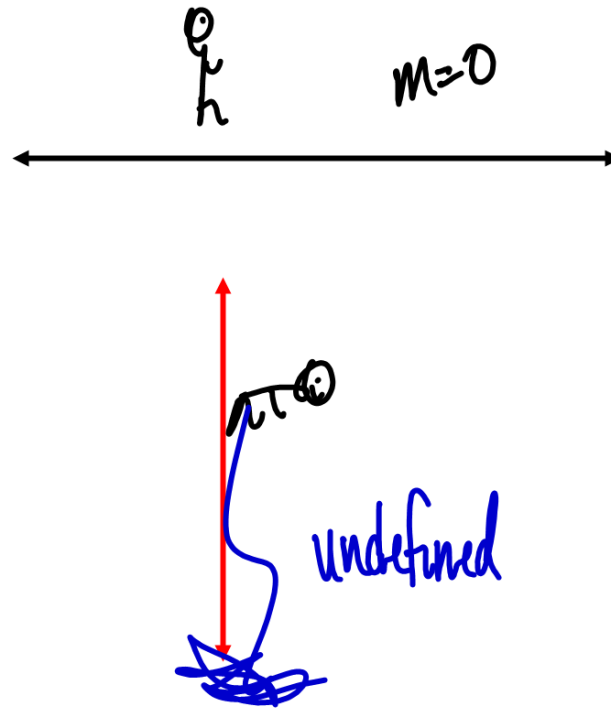
-14 -13 -12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 1 2 3 4 5 6 7 8 9 10 11 12 13 14

10
9
8
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4
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1
-1
-2
-3
-4
-5
-6
-7
-8
-9
-10

Y







p 470 8-28 E

$y=4$ Horizontal $m=0$

$x=-2$ Vertical ^{slope} undefined

$y=\frac{1}{4}x+2$ $m=\frac{1}{4}$