

Name: Key

Date: _____

Mrs. Roubos

8R Period: _____

Graphing using the slope-intercept method

Graphing a line (function)

Steps:

1) Make sure the lines is in slope-intercept form ($y = mx + b$)

2) Label the slope (m) as a fraction and the y-intercept (b)

3) **Begin** by placing a dot on the y-intercept (b) on the y-axis

4) **Move** using the slope ratio (m)

Numerator: positive means to move up, negative means to move down rise

Denominator: always move right → run

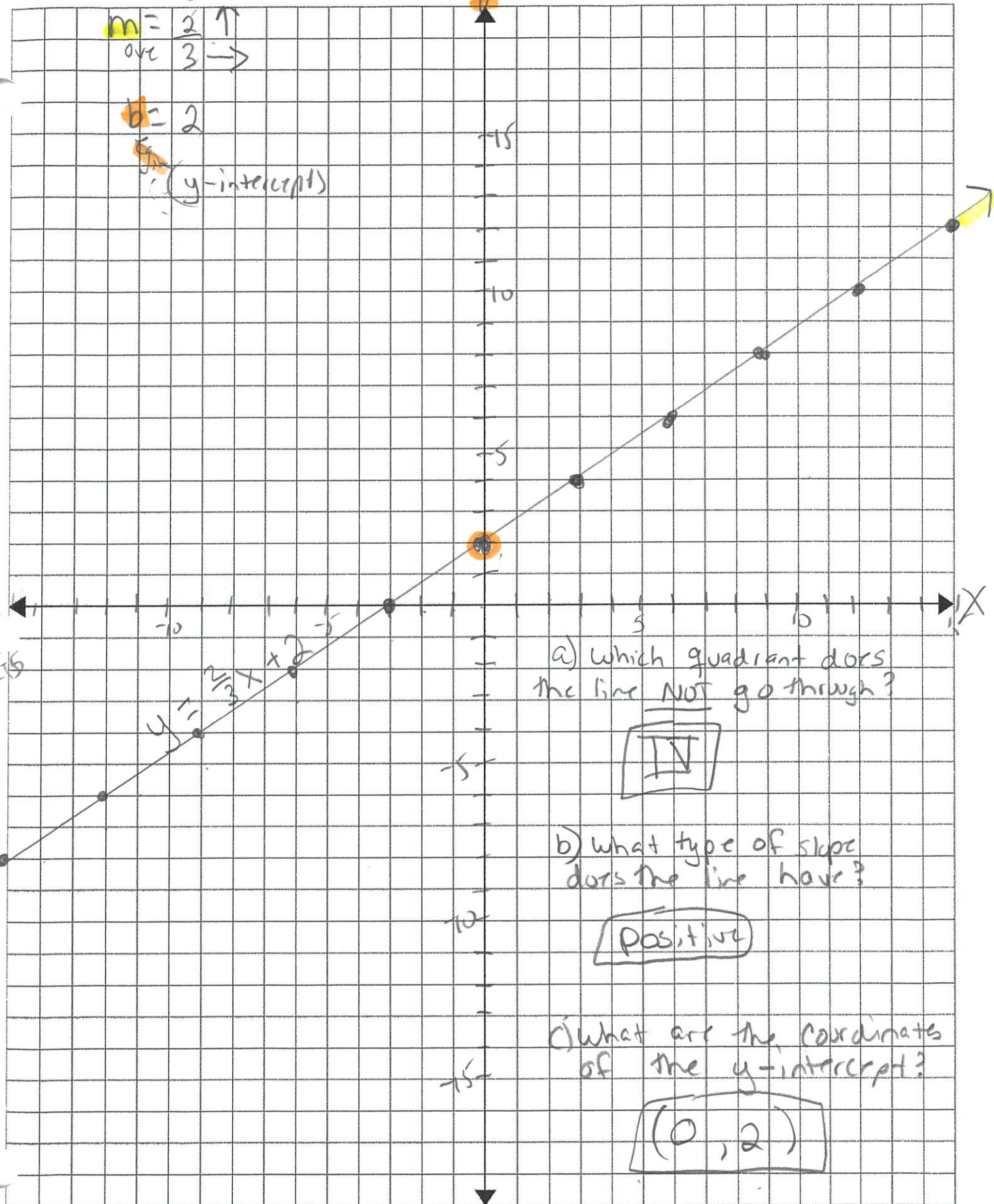
5) **Connect the dots**, put **arrows on the ends of the line**, and make sure to label the line with the **equation!!!**

$$① y = \frac{2}{3}x + 2$$

$$m = \frac{2}{3} \begin{matrix} \uparrow \\ \text{rise} \\ \downarrow \\ \text{run} \end{matrix}$$

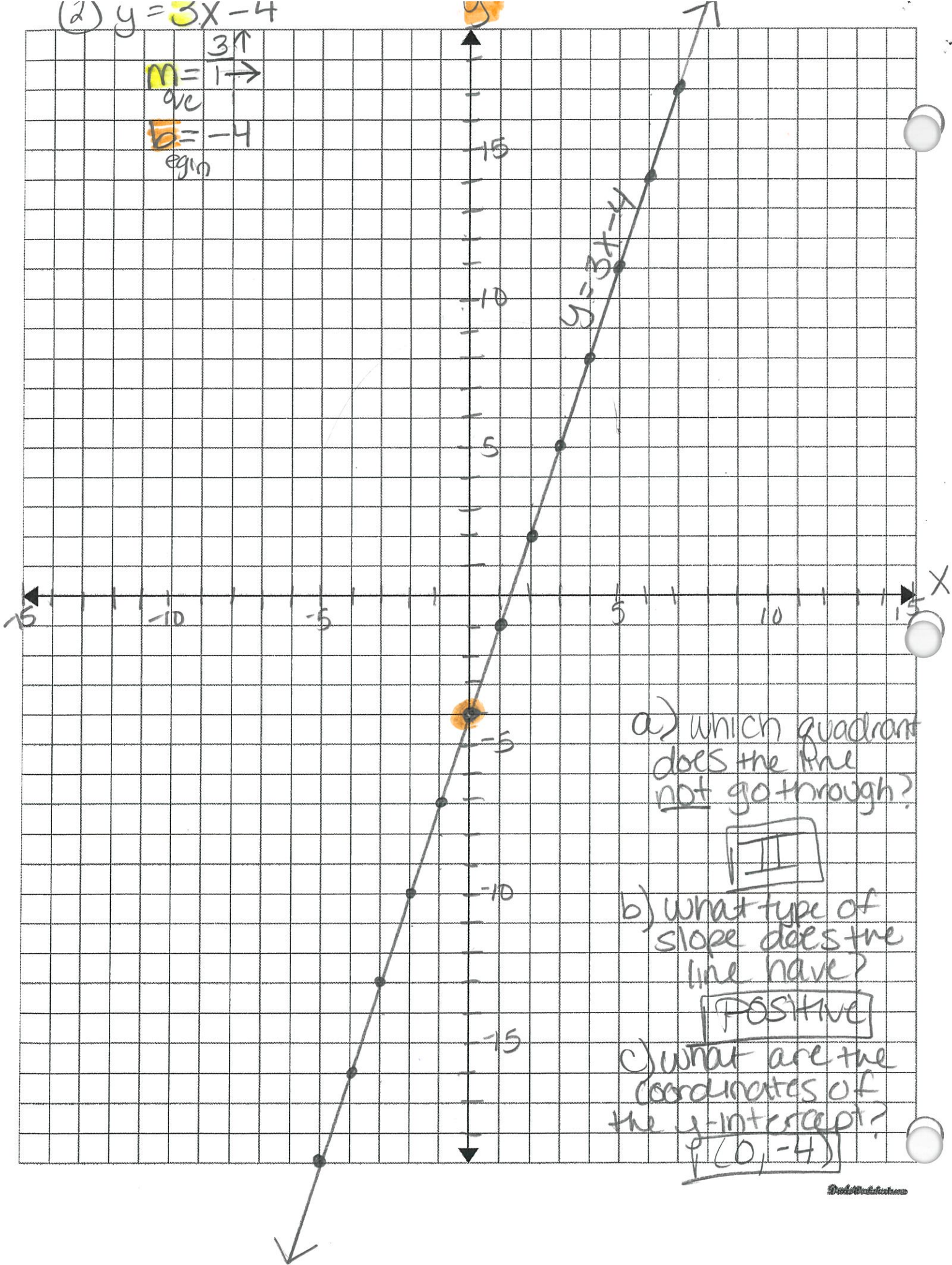
$$b = 2$$

(y-intercept)



(2) $y = 3x - 4$

$m = 3 \uparrow$
or
 $b = -4$
eqn



a) which quadrant does the line not go through?

III

b) what type of slope does the line have?

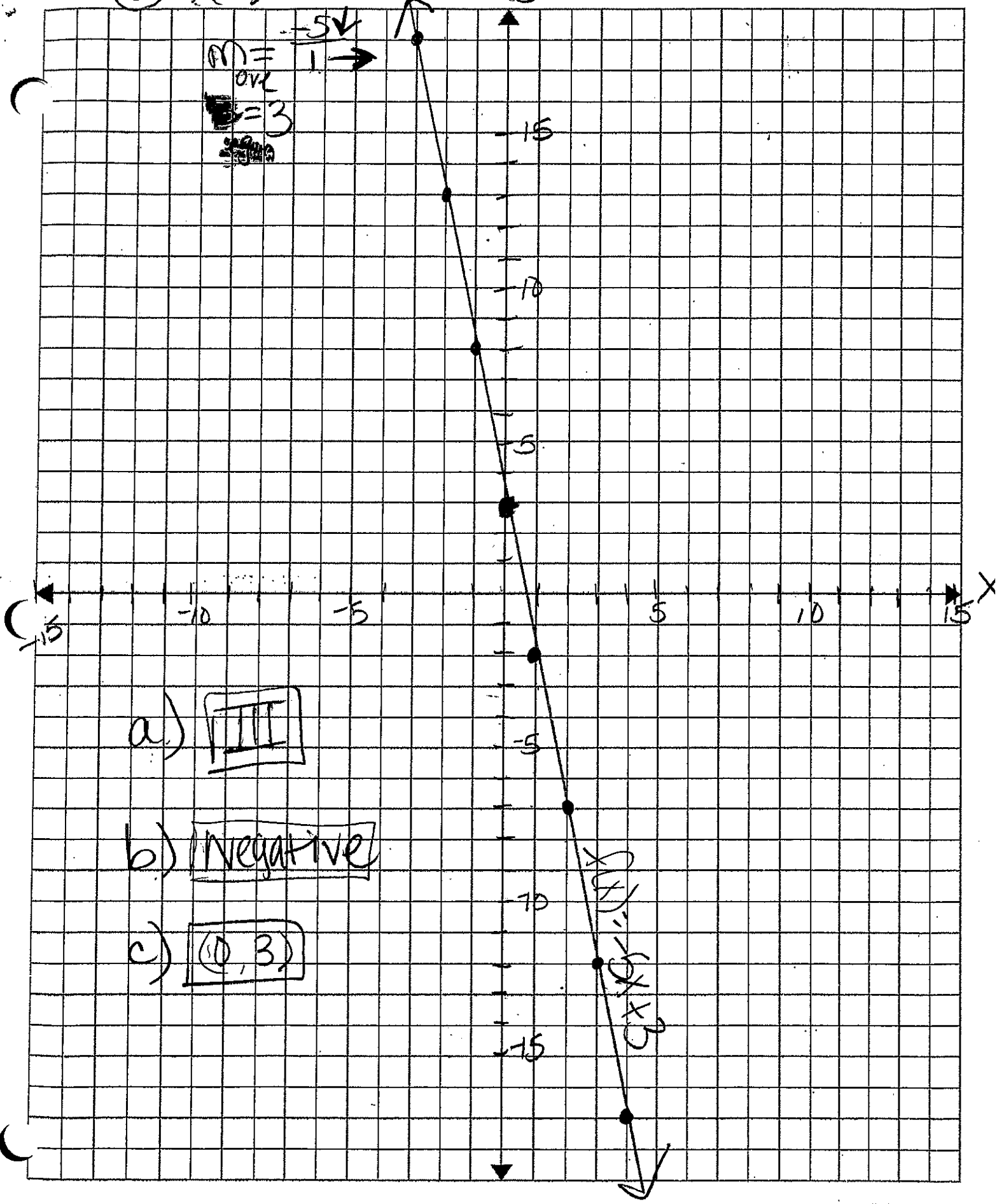
Positive

c) what are the coordinates of the y-intercept?

(0, -4)

$$(3) f(x) = -5x + 3$$

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



a) III

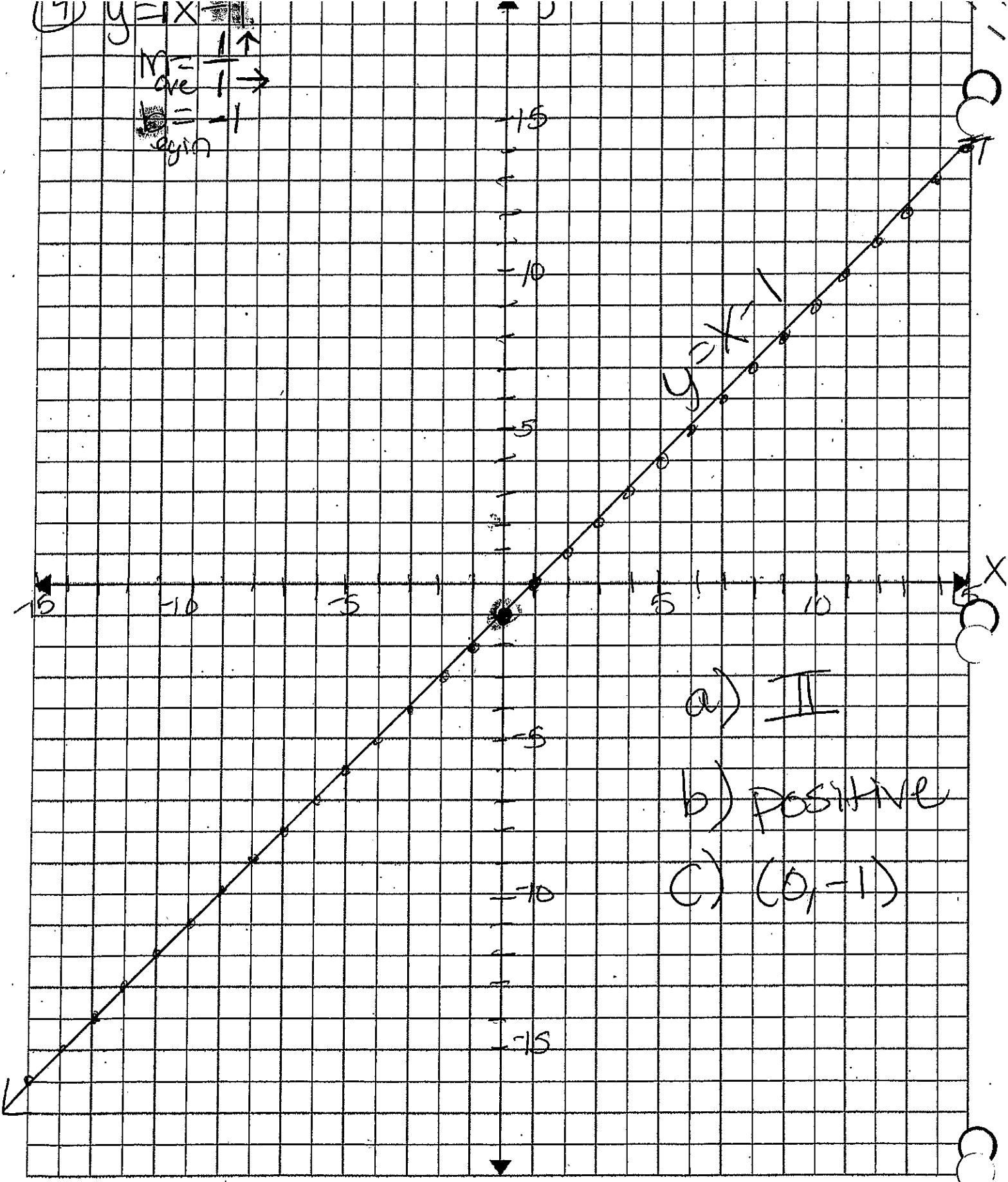
b) negative

c) (0, 3)

(7) $y = -x$

$m = \frac{\uparrow}{\rightarrow} = -1$

$b = -1$



- a) II
- b) POSITIVE
- c) $(0, -1)$