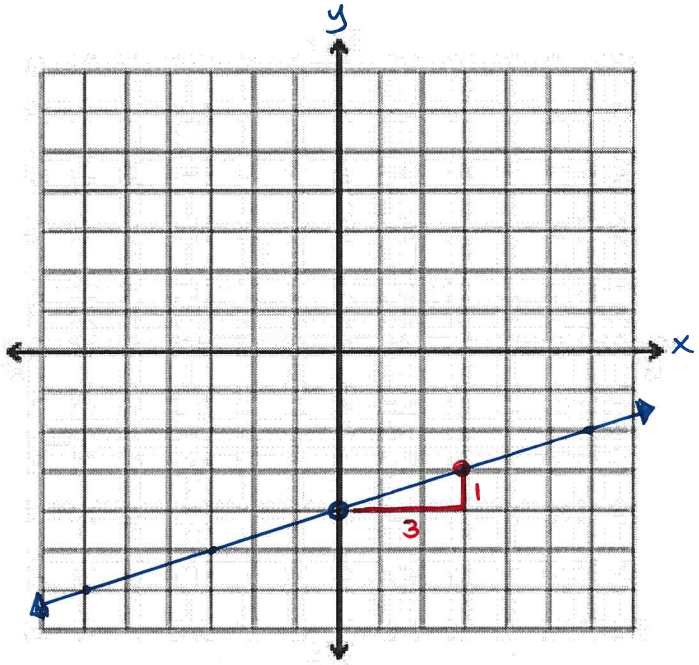
KEY

First Name:_____ Last Name:_____

L35 - 7.1 - Formative Quiz– Slope Intercept

Q1: *(Short Answer)* Graph the line $y = \frac{1}{3}x - 4$ on the graph paper below. *(1 mark)*



Q2: The equation $y = 2x + b$ passes through the point (4,6). The value of b is

x y

a. -2
b. $-\frac{3}{4}$
c. $\frac{3}{4}$
d. 2

$6 = 2(4) + b$
$6 = 8 + b$
$-8 \quad -8$
$-2 = b$

Q3: In the equation $y = \frac{1}{2}x + 5$, the point (x,7) exists on the line. The value of x is

*(Record your **one digit** answer in the Numerical Response boxes below)*

4			

$7 = \frac{1}{2}x + 5$
$-5 \qquad -5$
$2 = \frac{1}{2}x$
$\times 2 \quad \times 2$
$4 = x$

KEY

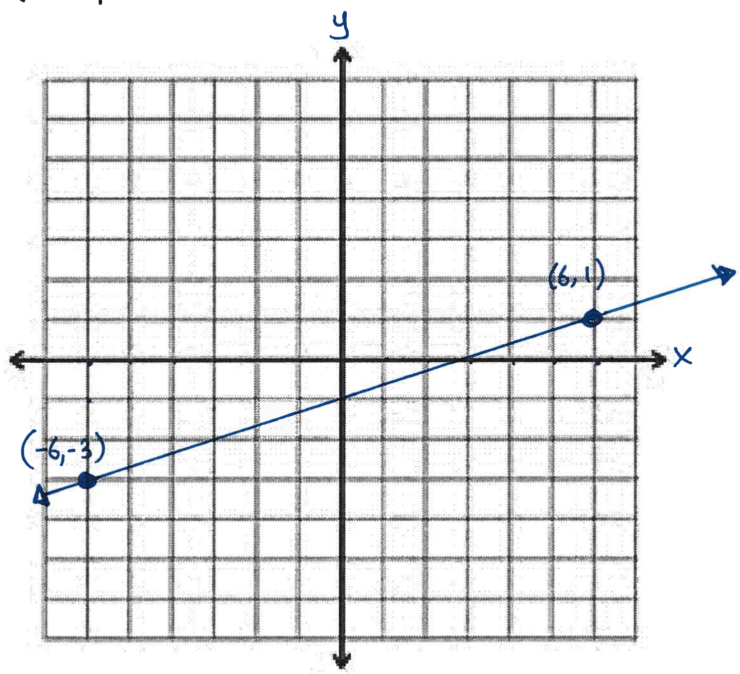
Use the following information to answer Q4-Q7:

A straight line passes through the points (-6,-3) and (6, 1). (x_1 y_1, x_2 y_2) *All questions are 1 mark.*

Q4: What is the slope of the line?

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{1-(-3)}{6-(-6)} = \frac{4}{12} = \boxed{\frac{1}{3}}$$

Q5: Graph the line.



Q6: Find the y-intercept algebraically.

Use (6,1) (x, y)

$$y = \frac{1}{3}x + b$$

$$1 = \frac{1}{3}(6) + b$$

$$1 = 2 + b$$

$$-2 \quad -2$$

$$\boxed{-1 = b}$$

Q7: What is the equation of the line?

$$y = mx + b$$

$$\boxed{y = \frac{1}{3}x - 1}$$

MARKING

Beginning	0.0 – 3.0
Progressing	3.5 – 5.0
Competent	5.5 – 6.5
Exemplary	7.0