

## Chapter 7 Exercise Set A

1

A: (1, 2)

B: (4, 4)

C: (5, 3)

D: (5, 1)

E: (3, 0)

2

x goes up by 3

y goes up by 2

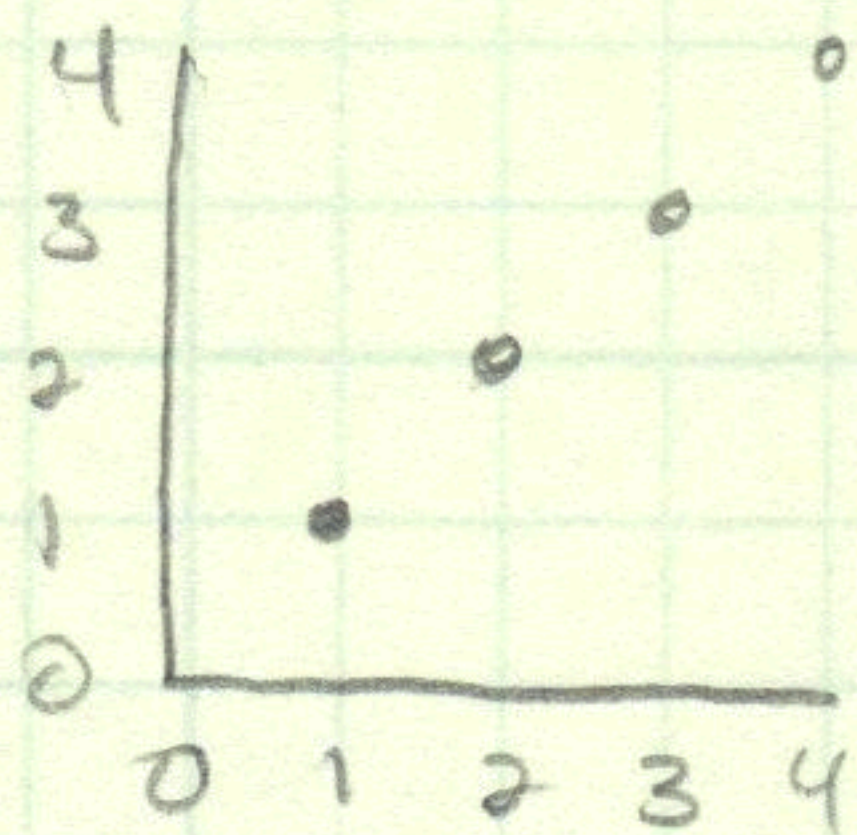
3

D



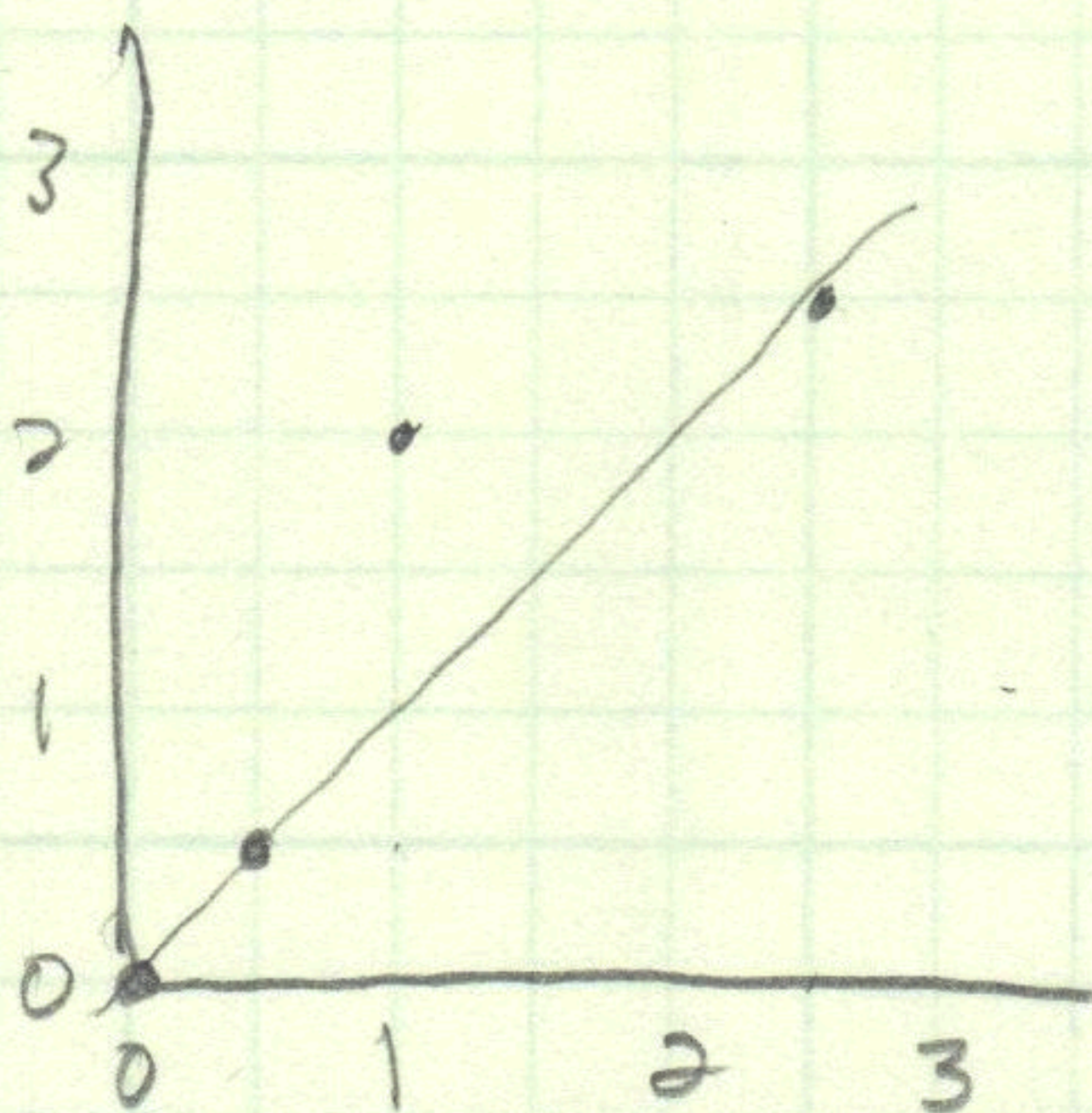
Chapter 7 Exercise Set B

1



They fall in a line!

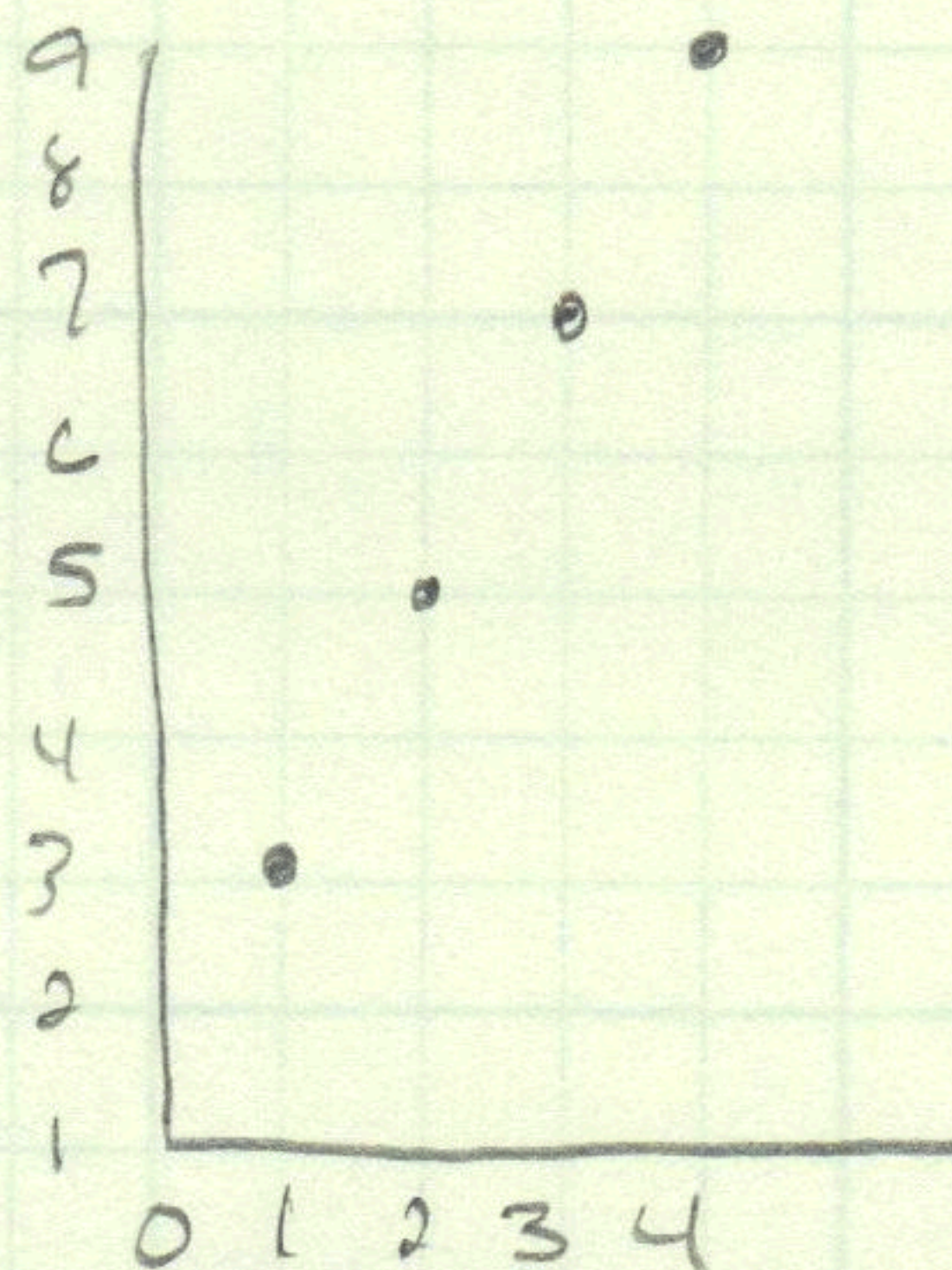
2



The point (1, 2) is above the line.

3

$$y = 2(3) + 1 = 7$$
$$y = 2(4) + 1 = 9$$



They form a line

4

(2, 1)

5

(1, 2)

6

(1, 2)



## Chapter 7 Exercise Set C

11

$$y = mx + b$$

Points:  $(0, 1)$  and  $(4, 0)$

$$m = \frac{y_1 - y_2}{x_1 - x_2} = \frac{1 - 0}{0 - 4} = -\frac{1}{4}$$

$$b = 1$$

$$y = -\frac{1}{4}x + 1$$

12

$$y = mx + b$$

Points  $(2, 0)$  and  $(4, 10)$

$$m = \frac{y_1 - y_2}{x_1 - x_2} = \frac{0 - 10}{2 - 4} = \frac{-10}{-2} = 5$$

$$b = -10$$

$$y = 5x - 10$$

13

$$y = mx + b$$

Points  $(2, 2)$  and  $(3, 3)$

$$m = \frac{y_1 - y_2}{x_1 - x_2} = \frac{2 - 3}{2 - 3} = \frac{1}{1} = 1$$

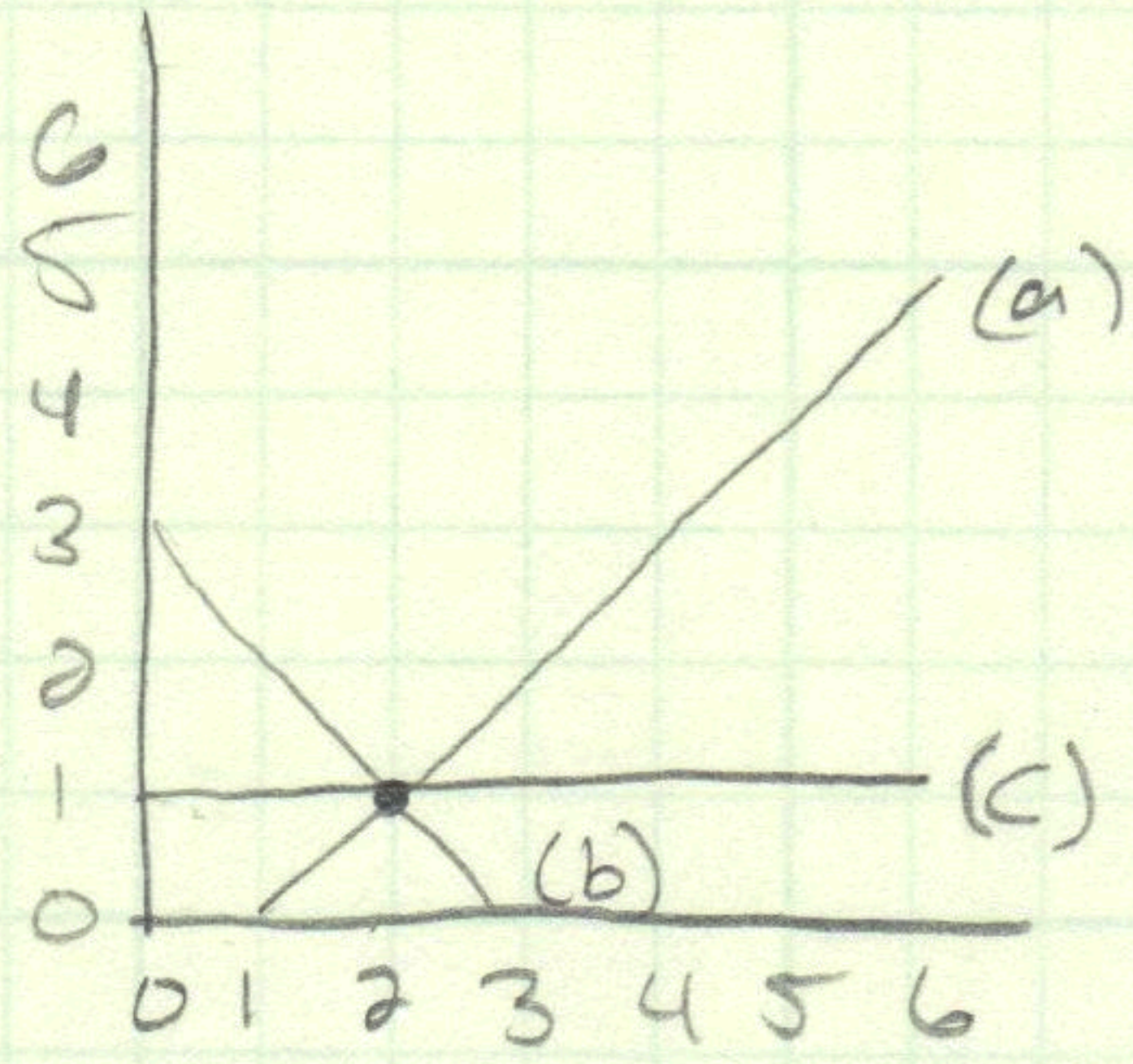
$$b = 0 \text{ (Look carefully!)}$$

$$y = x$$



# Chapter 7 Exercise Set D

1



2

On the line!  $\frac{1}{2} = \frac{1}{2}$

3

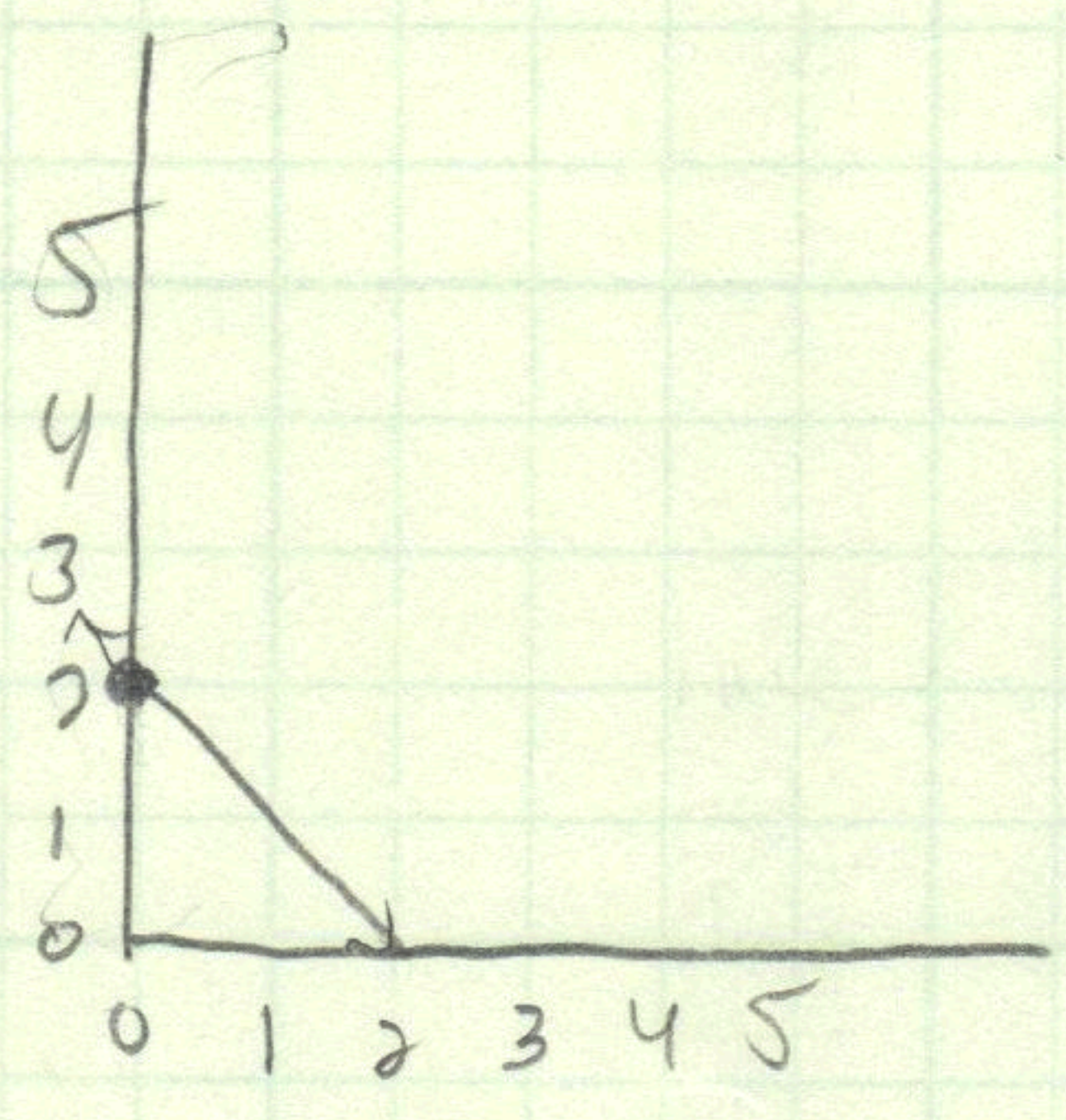
On the line!  $-\frac{2}{4} = -\frac{1}{2}$

4

Above the line!  $\frac{6}{5} \neq \frac{1}{2}$

Slope =  $\frac{1}{2}$

5



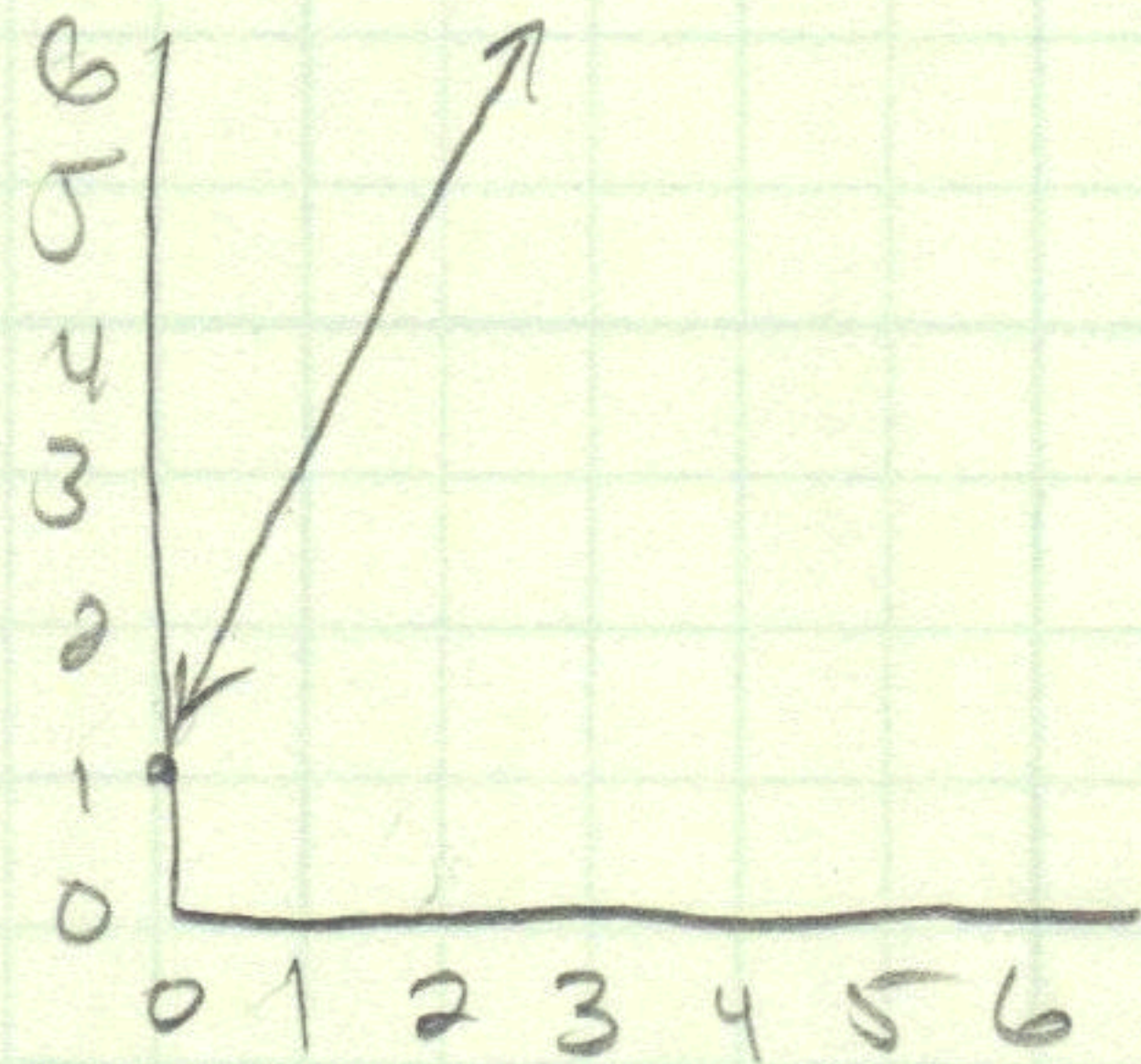
6





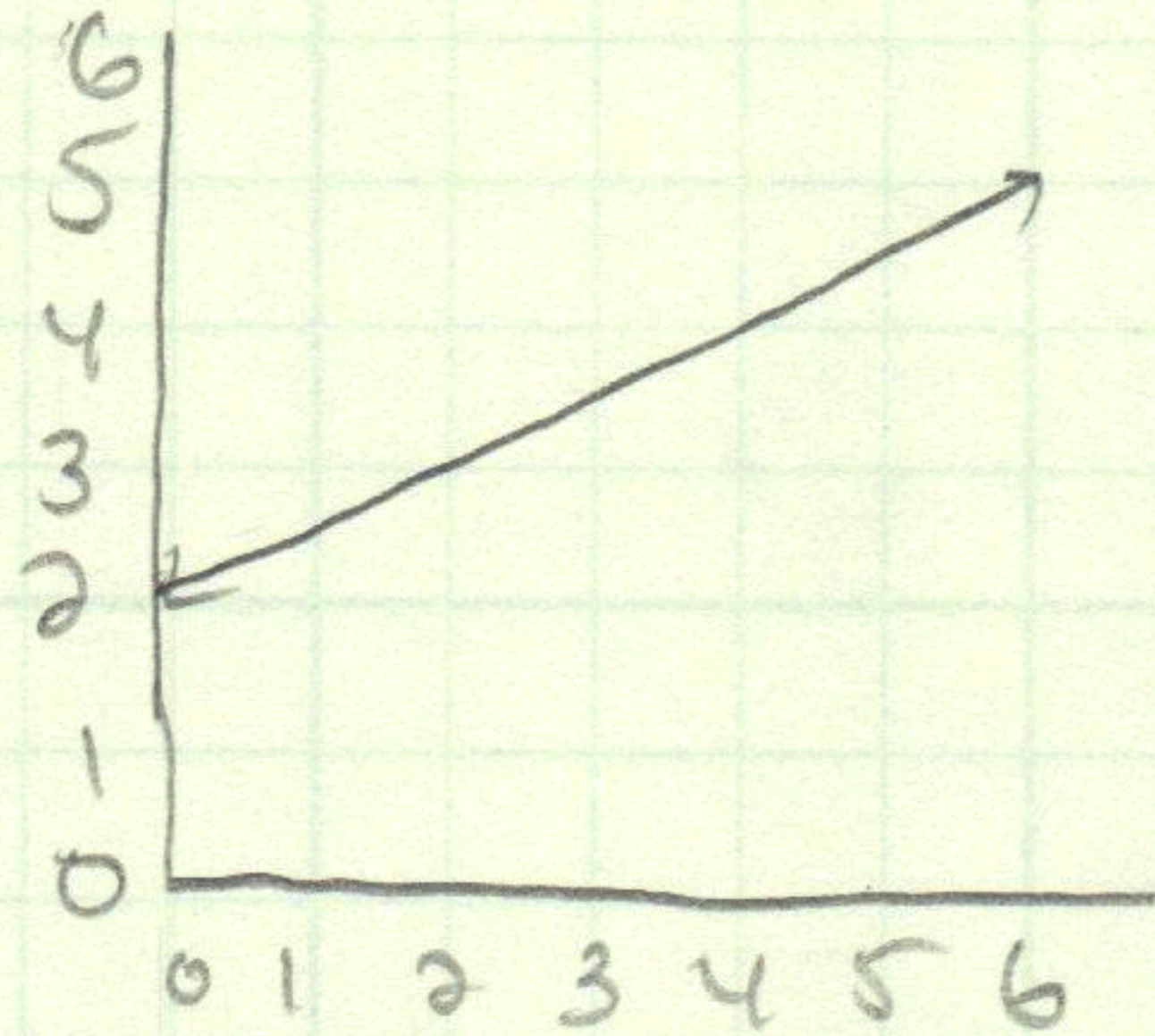
# Chapter 7 Exercise Set E

1a



Slope = 2  
 Intercept = 1  
 $x = 2 \Rightarrow \text{height} = 5$

1b



Slope =  $\frac{1}{2}$   
 Intercept = 2  
 $x = 2 \Rightarrow \text{height} = 3$

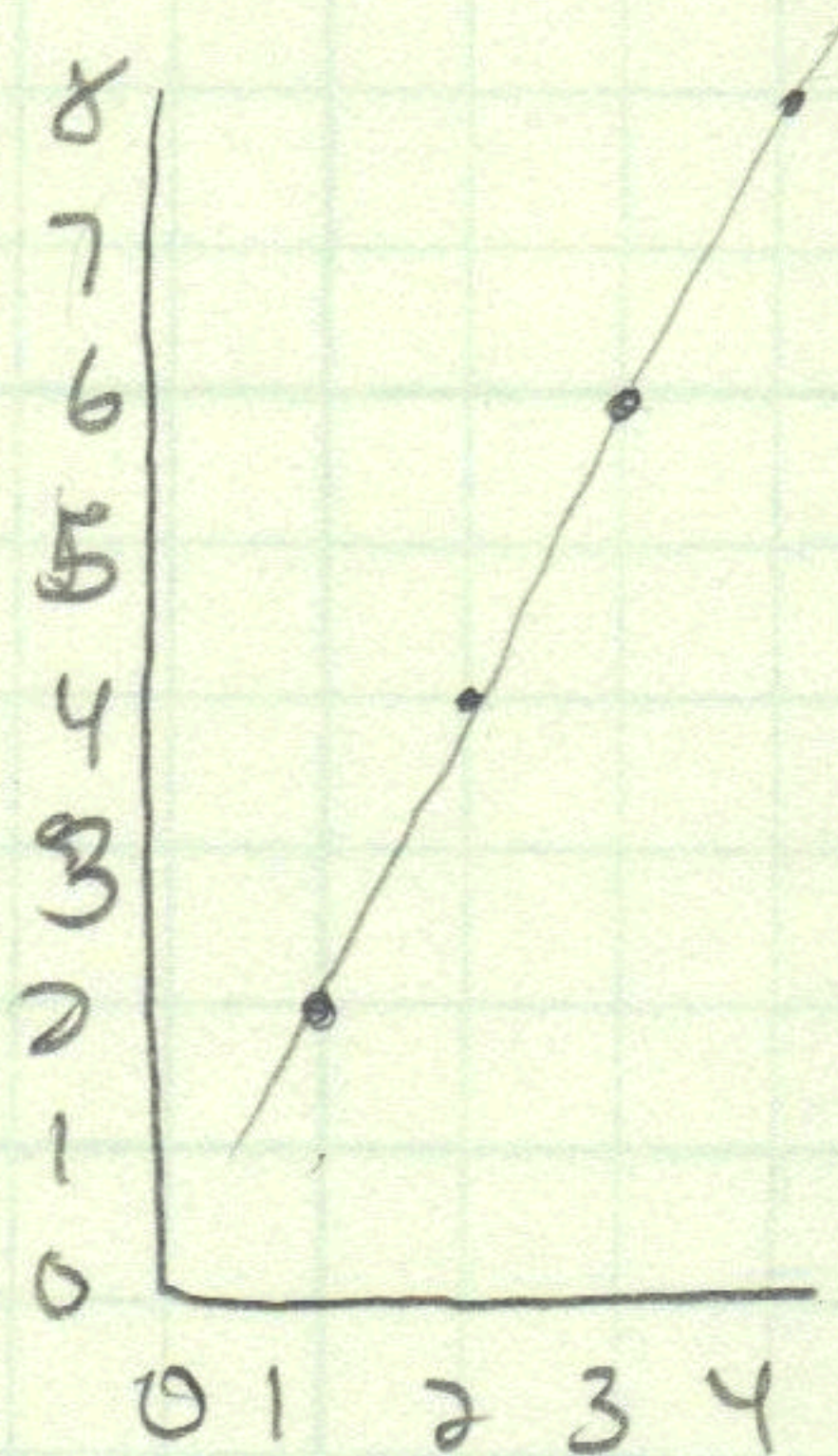
2

$$a = \frac{3}{4}x + 1$$

$$b = -\frac{1}{4}x + 4$$

$$c = -\frac{1}{2}x + 2$$

3

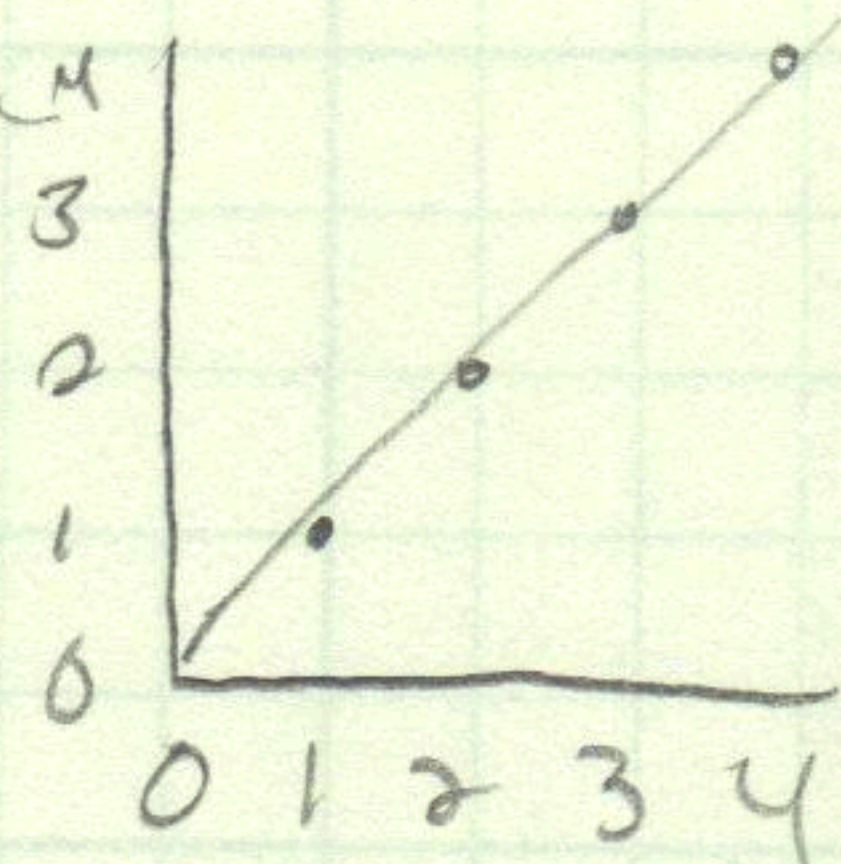


$x = 1$	$y = 2$
$x = 2$	$y = 4$
$x = 3$	$y = 6$
$x = 4$	$y = 8$

They are on a line!

$y = 2x + 0$  (your slope should be the same)

4



$y = x$

slope = 1  
 intercept = 0

5

a) Yes    b) No    c) No.

$y = x$

6

- a) True
- b) True
- c) True