

Pg. 243 6-16 area

6)

Number of pentagons
Perimeter

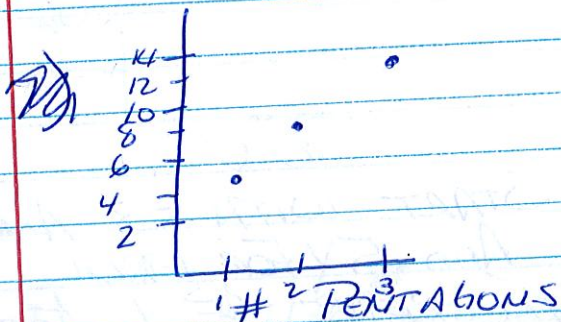
1	2	3
5	8	11
+3	+3	

LINEAR

Multiply the # of PENTAGONS By 3
And Add 2

$$y = 3x + 2$$

TO GET TWO FIND y
INTERCEPT WHEN $x=0$
So $5 - 3 = 2$ ← y INTERCEPT



7)

X
OF
HEXAGONS

Y
PERIMETER

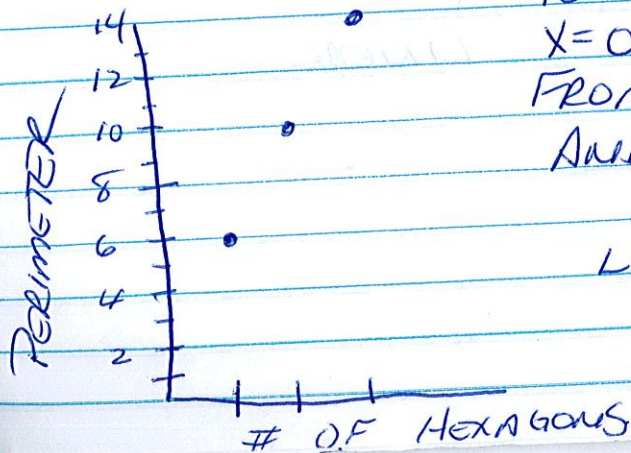
LINEAR

+1 <	1	6 > +4
+1 <	2	10 > +4
+1 <	3	14 > +4

MULTIPLY THE # OF
HEXAGONS By 4 AND
ADD TWO

$$y = 4x + 2$$

TO GET THE y INTERCEPT
 $x=0$ SO SUBTRACT 4
FROM 6 WHICH IS DIFFERENCE
AND GET TWO



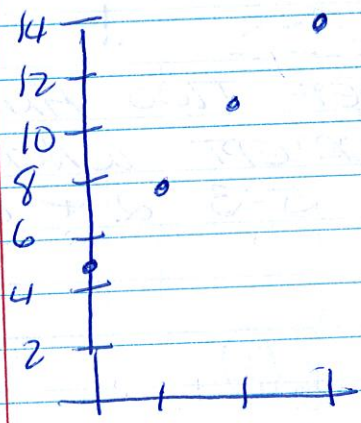
LINEAR

~~Brooklyn~~

x	y
0	5
1	8
2	11
3	14

START WITH 5 AND
ADD 3 FOR EACH
INCREASE OF 1 OF X

$$y = 3x + 5$$



LINEAR

x	y
0	-3
1	2
2	7
3	12

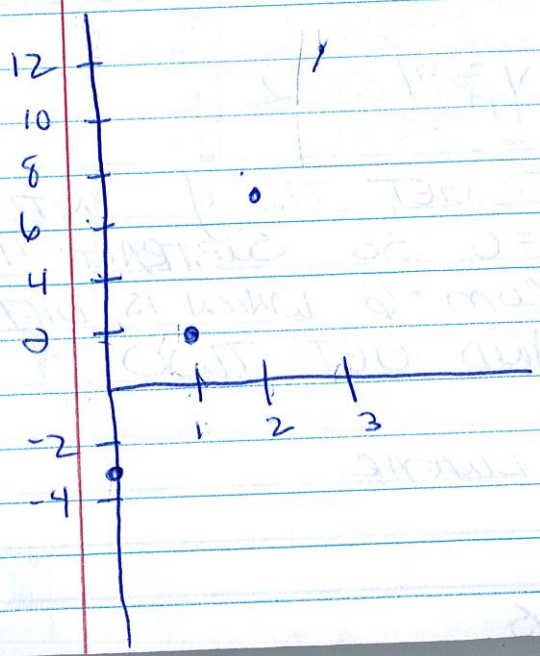
START WITH -3 AND
ADD 5 FOR EACH
INCREASE OF 1 FOR
X.

$$y = mx + b$$

y intercept
WHERE

$$y = 5x - 3$$

↳ RATE OF CHANGE
BETWEEN y VALUES.



LINEAR

x	y
0	43
1	32
2	21
3	10

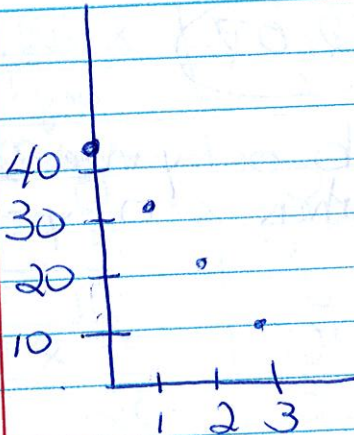
START WITH -3 AND
ADD 5 FOR EACH
INCREASE OF 1
FOR X

$$y = mx + b$$

$$y = (-11)x + 43$$

b which is
y intercept
x=0 ∴ 43

Change in y $\frac{-11}{1}$
change in x



LINEAR

11)

x	y
0	1127
1	1219
2	1311
3	1403

LINEAR.

FOR EACH ADDITIONAL
HOUR OF CLIMBING
YOU GAIN 92 FT OF
ELEVATION

$$y = mx + b$$

$$y = 92x + 1127$$

b = y intercept
when x=0 y=1127

rate of change = $\frac{\Delta y}{\Delta x} = \frac{92}{1}$

12.	x	y
1 <	0	52.07
1 <	1	53.36
1 <	2	54.65
1 <	3	55.94

LINEAR
EACH ADDITIONAL
CAN OF SOUP
COST \$1.29

$$y = mx + b$$

$$y = 1.29x + 52.07$$

b or y intercept
when $x=0$ $y=52.07$

rate of change

$$\frac{\Delta y}{\Delta x} = \frac{1.29}{1}$$

13.

	x	y
-17 +17 <	0	11.2
+17 <	17	10.2
+17 <	34	9.2
+17 <	51	8.2

Linear For every
17 mi. travelled
the amount of
gas in your tank
goes down 1 gal

0-17

$$y = mx + b$$

$$y = \left(\frac{-1}{17}\right)x + 11.2$$

b = y intercept
y intercept
is when
 $x=0$
when $x=0$
 $y=11.2$

m = rate of change

$$\frac{\Delta y}{\Delta x} = \frac{-1}{17}$$

14. The number of defective loaves depends on the total number of loaves made. Therefore, the number of defective loaves is the dependent variable.

15. gal X liquid made	y fert. powder
+ 5 < 0	0 > +8
+ 5 < 5	8 > +8
+ 5 < 10	16 > +8
+ 5 < 15	24 > +8
0	32 > +8
20	

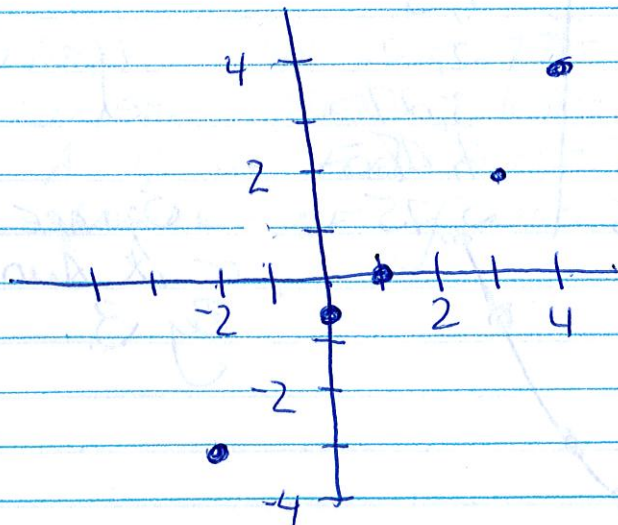
$$y = \left(\frac{8}{5}\right)x + 0$$

$m = \text{rate of change}$
 $\frac{\Delta y}{\Delta x} = \frac{8}{5}$

$b = y \text{ intercept}$
 $x=0 \therefore y=0$

X is the number of gallons of water and y is the number of teaspoons of fertilizer.

16)



No not all points are on a straight line