



Warm Up Grade 8  
Oct. 5, 2023



1) Find the missing value for the ordered pairs of  $y = -3x + 2$   
(show work)

a)  $(-5, \underline{\quad})$

$$y = -3x + 2$$

$$y = -3(-5) + 2$$

$$y = (15) + 2$$

$$y = 17$$

$(-5, 17)$

b)  $(\underline{\quad}, -31)$

$$y = -3x + 2$$

$$(-31) = -3x + 2$$

$$(-31)^{-2} = -3x + 2^{-2}$$

use calculator

$$-33 = -3x$$

$$\div (-3) \quad \div (-3)$$

$$+11 = x$$

$(11, -31)$

Side note

$$(-31) - (+2)$$

↓ add ↓ opp

$$(-31) + (-2)$$

$$-33$$

A grade 8 class is going on a field trip. The bus seats 24 students. An equation that relates the number of boys on the bus to the number of girls is  $b = 24 - g$  where  $g$  represents the number of girls and  $b$  represents the number of boys.



- Create a table of values for the relation.
- Graph the relation.
- Describe the relationship between the variables in the graph.

$$b = 24 - g$$

$$y = 24 - x$$

	(g) x	(b) y
0	0	24
1	1	23
2	2	22
3	3	21
4	4	20
5	5	19

$$g = 0$$

$$b = 24 - g$$

$$24 - 0$$

$$24$$

$$g = 1$$

$$b = 24 - g$$

$$24 - 1$$

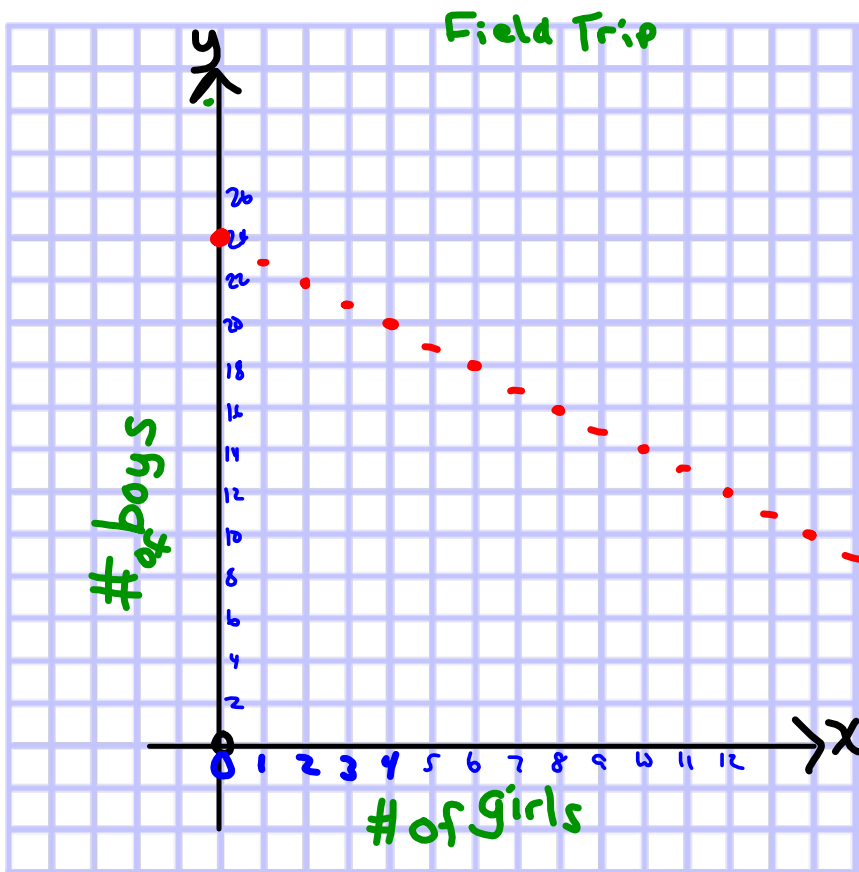
$$23$$

$$g = 2$$

$$b = 24 - g$$

$$= 24 - 2$$

$$= 22$$



$x$	$y$
0	24
1	23
2	22
3	21
4	20
5	19

As # girls increase by 1, the # of boys decreases by 1.  
 Diagonal dots of lines.

# Class/Homework

Section 6.6, 6.7 Test Thursday, Oct. 11

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# 4(Hint: make a table of values using the graph then describe) ,

#6(a,b,c,d) (Show work but then place all lines on same graph using different colors for different lines),

#7(Make a table),

#9, Done ↑

#10, Today  
#11  
#13

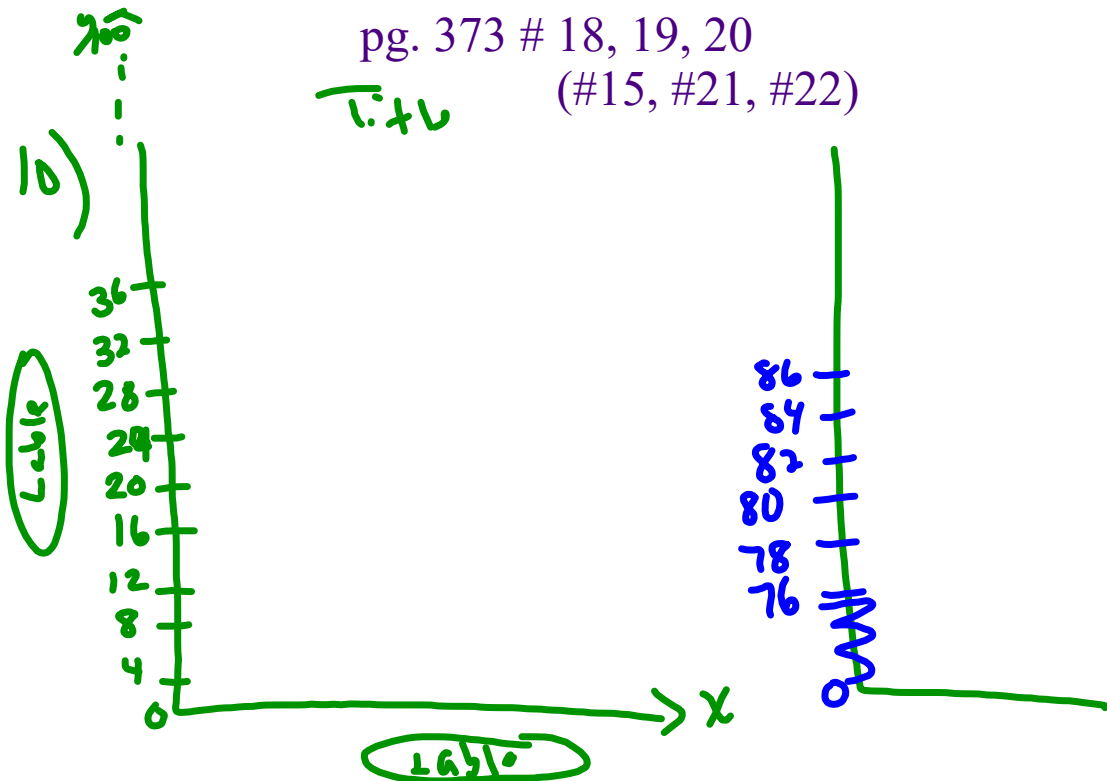
n	m
0	100
2	96
4	92
6	88
8	84
10	80

Handwritten notes:  $4p^2$  (with arrow pointing to n), "down 4" (with arrow pointing to m)

NEED MORE

pg. 373 # 18, 19, 20

T. + V (#15, #21, #22)



# Class/Homework

pg. 364 # 10, #11, #12, #13

pg. 373 # 18, 19, 20

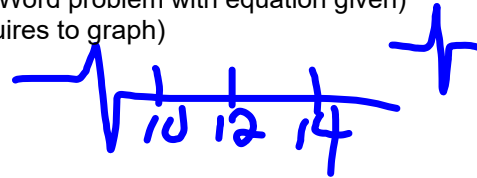
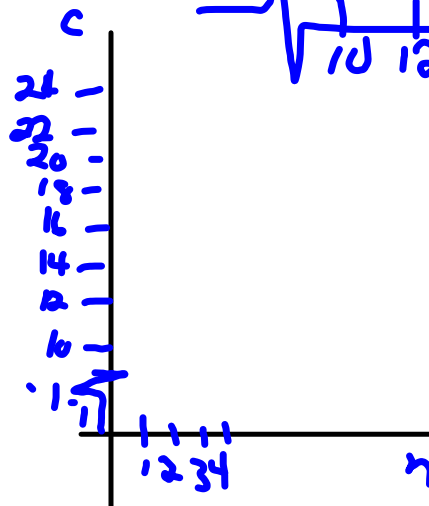
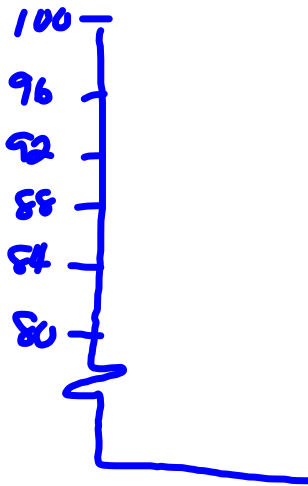
NEED more (#15, #21, #22)

Test Tomorrow on Section 6.6 & 6.7 ???

2 MC

1 Short Response (Word problem with equation given)

Part a to f (Requires to graph)



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1. No you can not have negatives since you can not have a negative number of girls and boys.
2. You can only have whole number values, so you don't connect the points.
3. The banding would be on opposite sides, and the graph would be the same.

4a)  $y = 4x - 1$

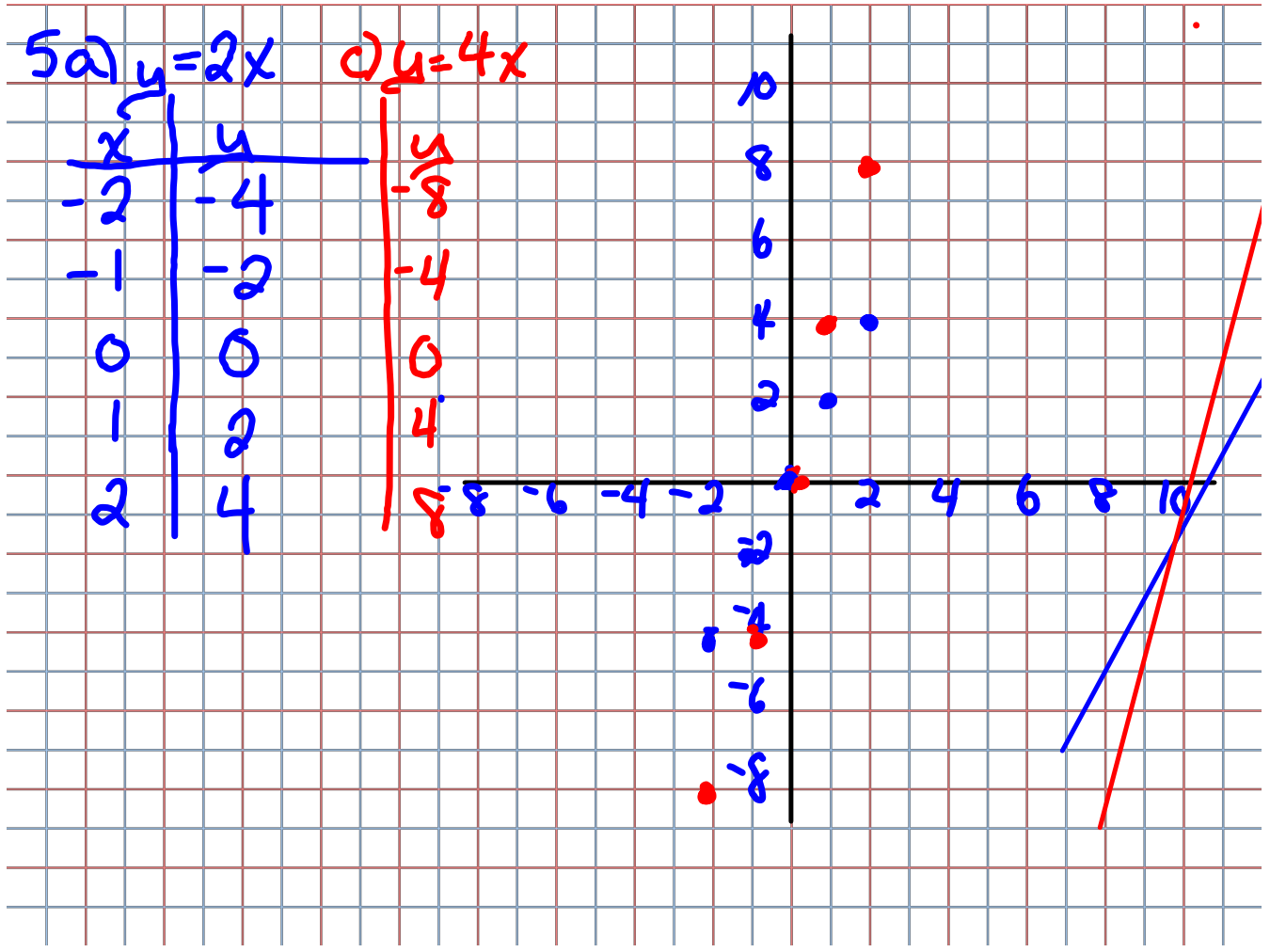
Input	Output
$x$	$y$
0	-1
1	3
2	7
3	11
4	15

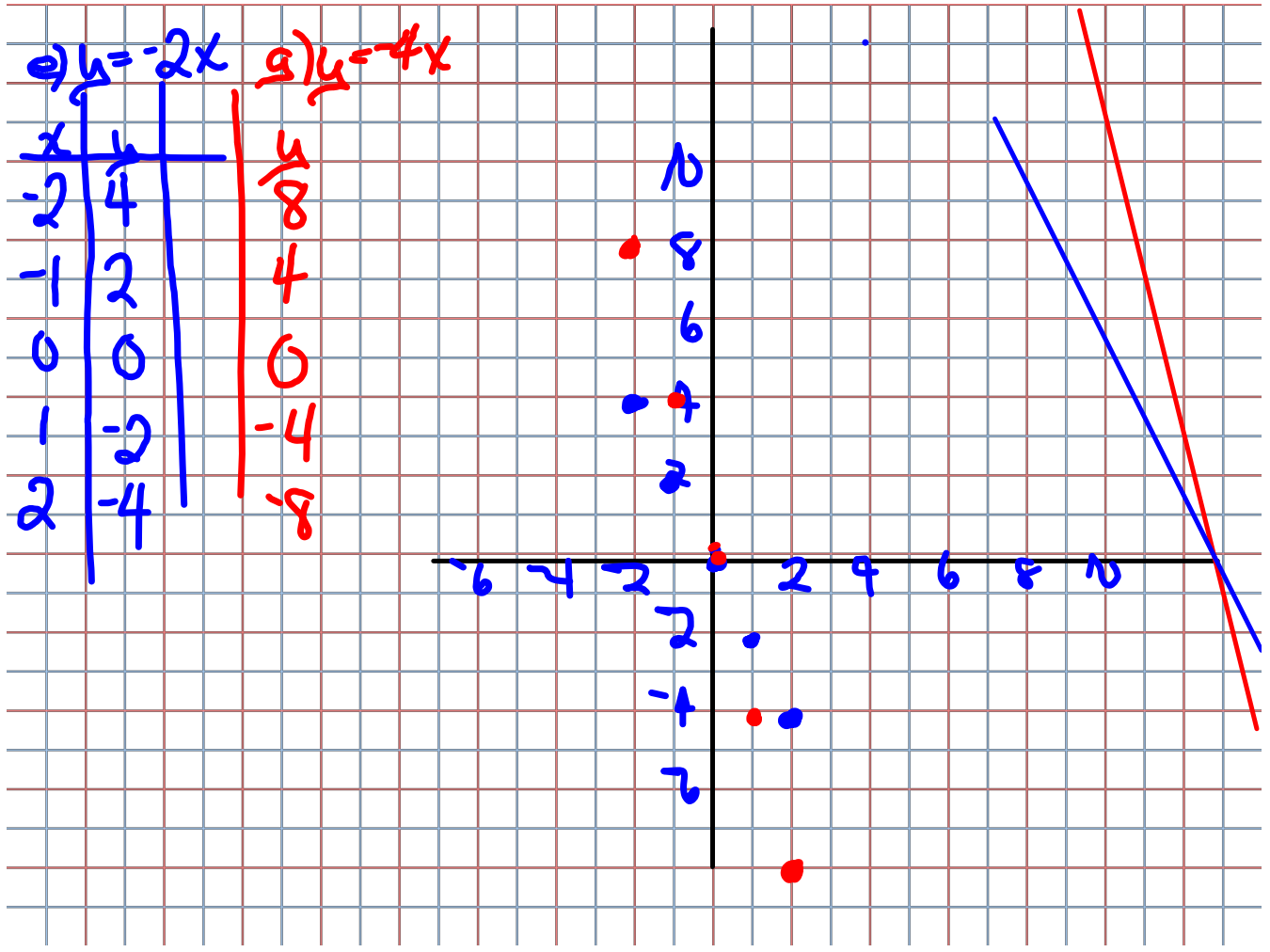
$x$  goes up by 1,  
 $y$  goes up by 4.

b)  $y = -3x + 9$

Input	Output
$x$	$y$
0	9
1	6
2	3
3	0

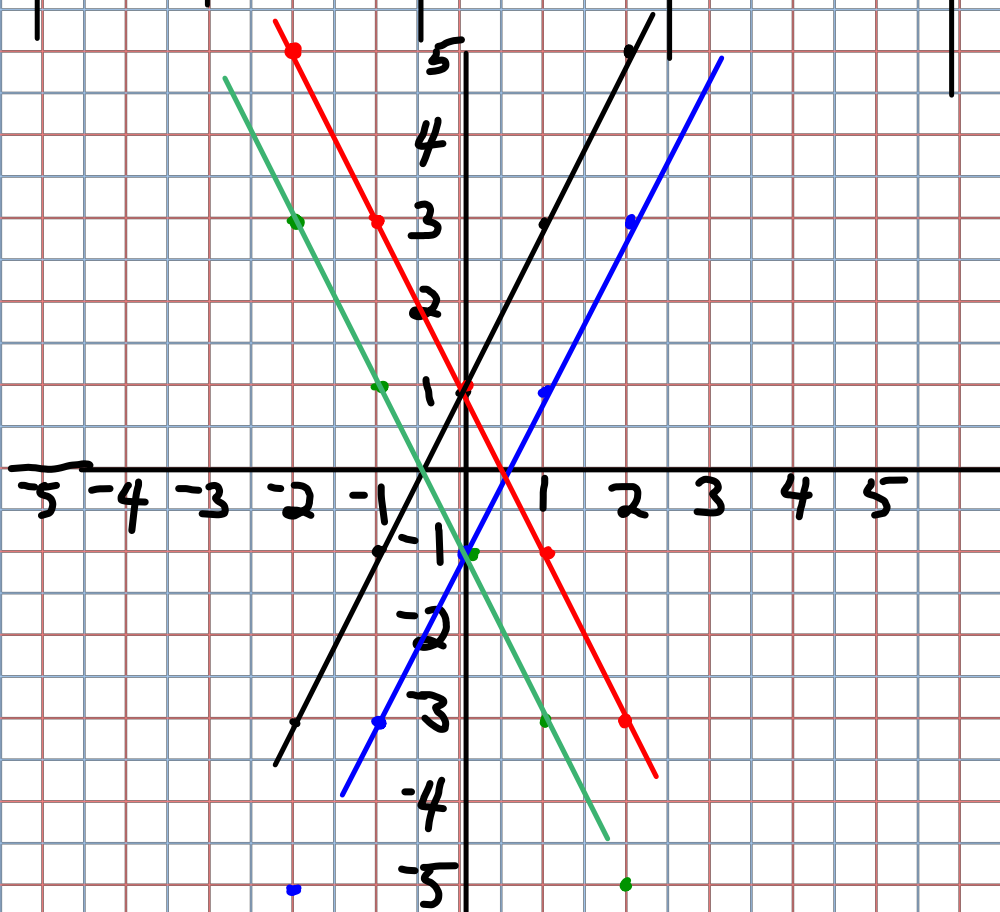
$x$  goes up by 1  
 $y$  goes down by 3  
 (or up -3)







6	x	a) $2x+1$	b) $2x-1$	c) $-2x+1$	d) $-2x-1$
	-2	-3	-5	5	3
	-1	-1	-3	3	1
	0	1	-1	1	-1
	1	3	1	-1	-3
	2	5	3	-3	-5



$$7 \quad y = 8x + 3$$

$$(2, \quad)$$

$$\begin{aligned} y &= 8 \times 2 + 3 \\ &= 16 + 3 \\ &= 19 \end{aligned}$$

$$(5, \quad)$$

$$\begin{aligned} y &= 8 \times 5 + 3 \\ &= 40 + 3 \\ &= 43 \end{aligned}$$

$$8. \quad y = -6x - 5$$

$$(-3, \quad)$$

$$\begin{aligned} y &= -6 \times -3 - 5 \\ &= 18 - 5 \\ &= 13 \end{aligned}$$

$$(2, \quad)$$

$$\begin{aligned} y &= -6x - 5 \\ &= -6 \times 2 - 5 \\ &= -12 - 5 \\ &= -17 \end{aligned}$$

$$(\quad, 27)$$

$$(3, 27)$$

from the graph

up  
each  
time

Input	Output
$x$	$8x + 3$
0	3
1	11
2	19
3	27
4	35
5	43

add 8  
each  
time

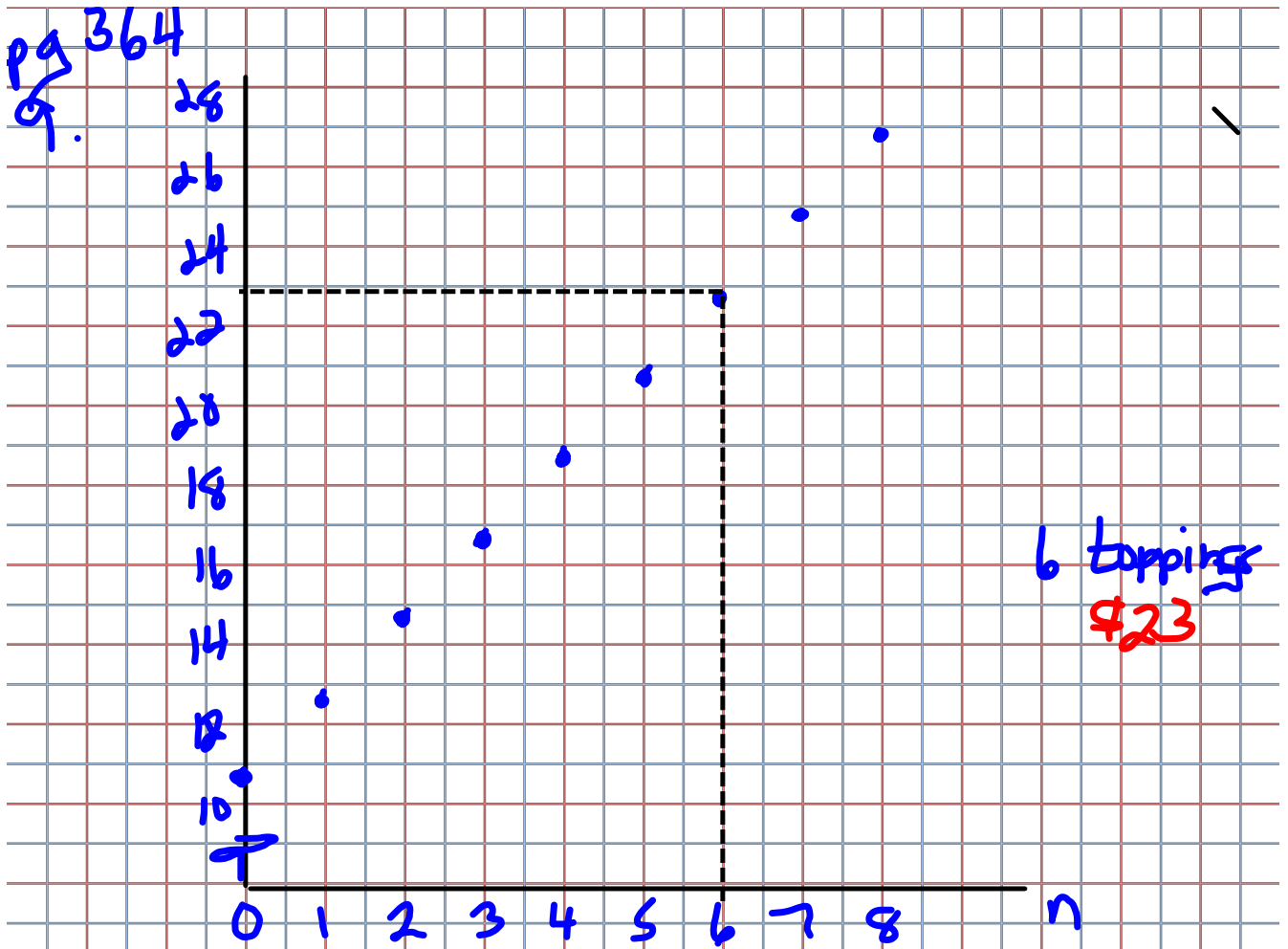
$$(\quad, 7)$$

$x = 2$  (using graph)

$$(\quad, -23)$$

(3, -23) using graph

could have  
used a chart



b) as  $n$  goes up by 1, cost goes up by 2