Warm Up Grade 9

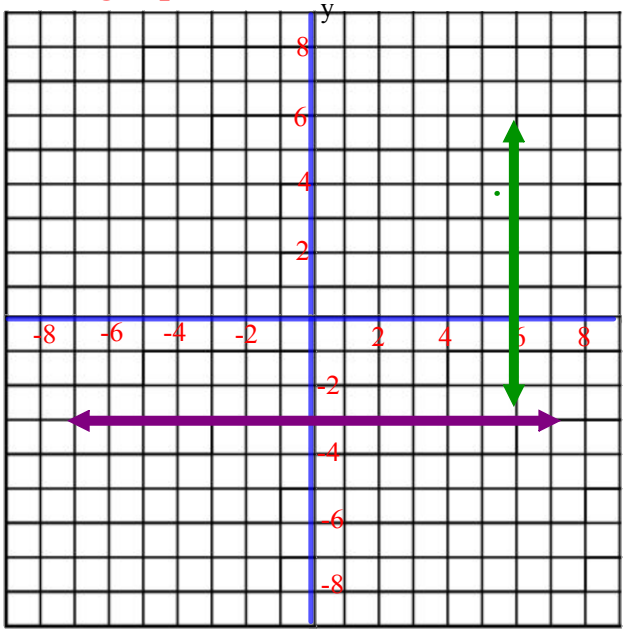
Section 4.3 Day 2

Write equations that represents the following:

1) "The difference of two numbers is 15" $x - y = 15$

2) " Three times a number is 5 times another number" $3y = 5x$

Write the following equation for each line and determine which is horizontal or vertical.



$x = 6$ m is undefined vertical

$y = -3$ $m = 0$ horizontal

Graph the equation **y - 3x = 3** using a table of values.

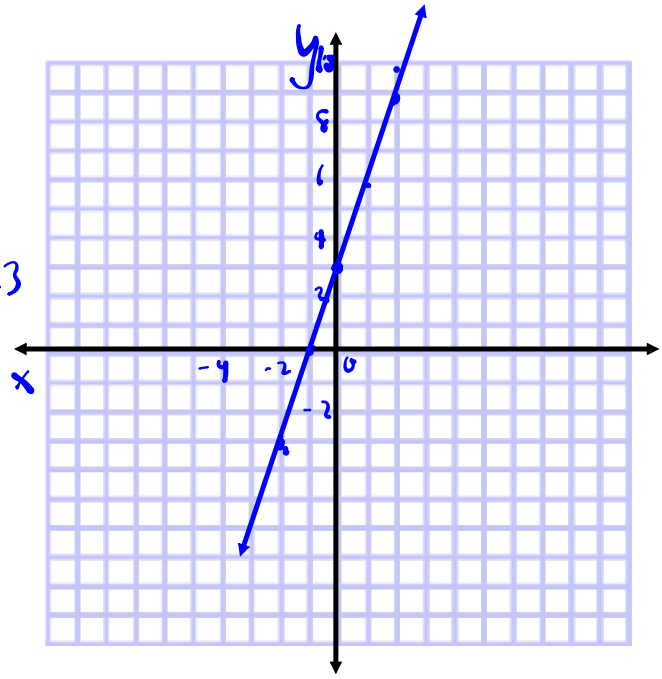
$y - 3x = 3$ ← y-int

$y = 3x + 3$

↑ slope

x	y
-2	-3
-1	0
0	3
1	6
2	9

$y = 3(-2) + 3$
$= -6 + 3$
$= -3$



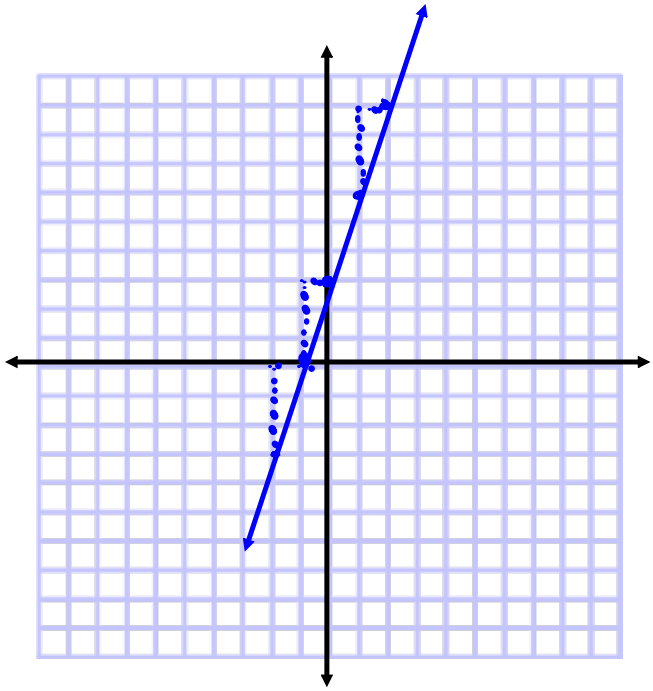
Graph the equation **y - 3x = 3** using the y-int and slope.

$y = 3x + 3$

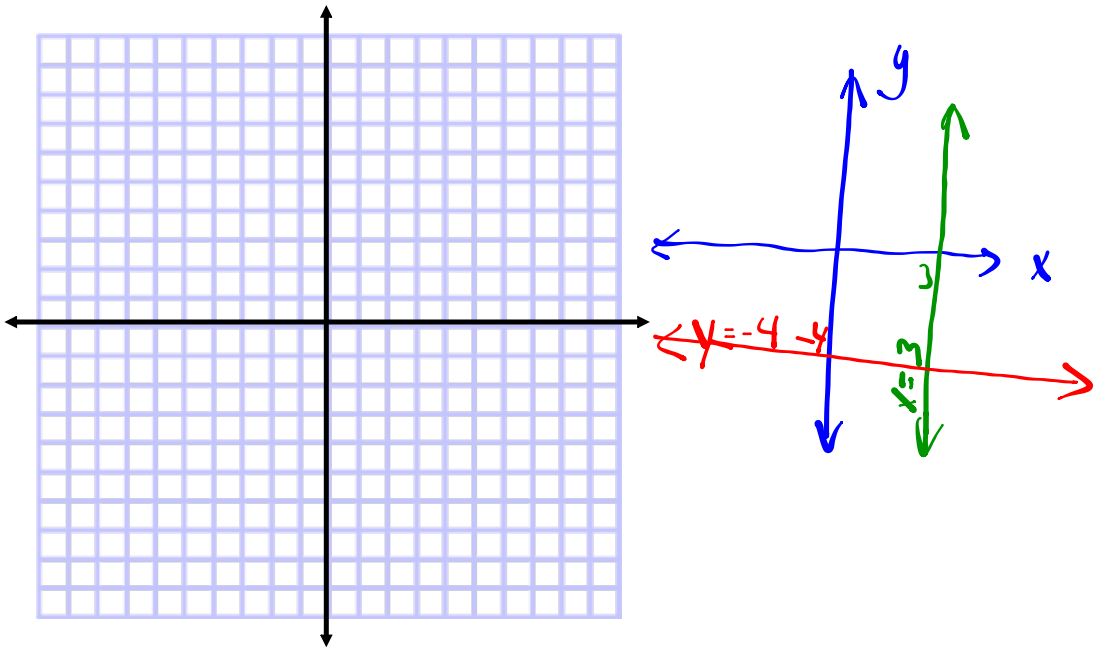
$m = \frac{3}{1} \leftarrow \Delta y$

$\leftarrow \Delta x$

$\frac{-3}{-1}$



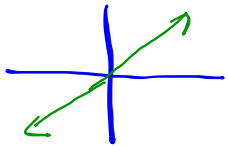
Graph x = 3 and y = -4



Slope Patterns y=mx + b

1. y = x

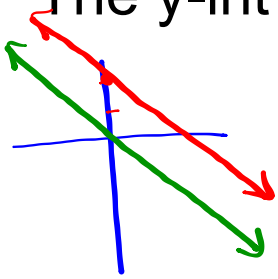
m = 1. Graph is increasing at 45^0. The y-int (b) is 0.



2. y = -x

m = -1. Graph is decreasing at 45^0. The y-int is 0.

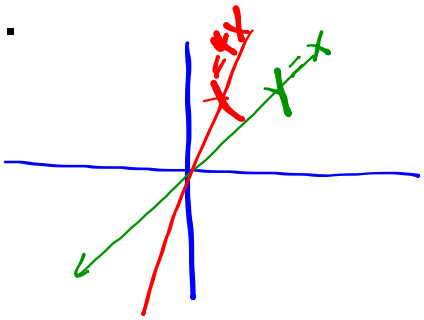
y = -x + 2



3.

y = x
y = 4x

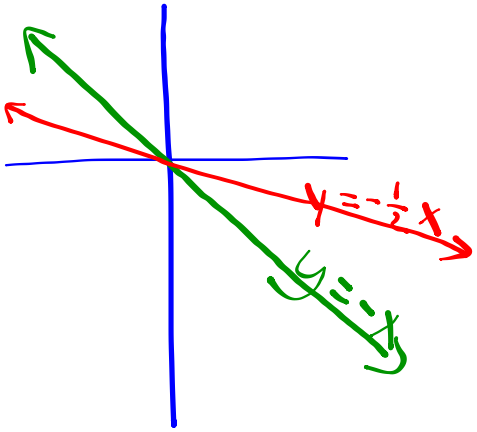
m = 1 & 4 They are both increasing. y=4x has a steeper slope.



4.

y = -x

$y = -\frac{1}{2}x$



$3x + 8 = 0$ $x = ?$ vertical

$y = 2$ horizontal

$5x + 7y = 8$ oblique

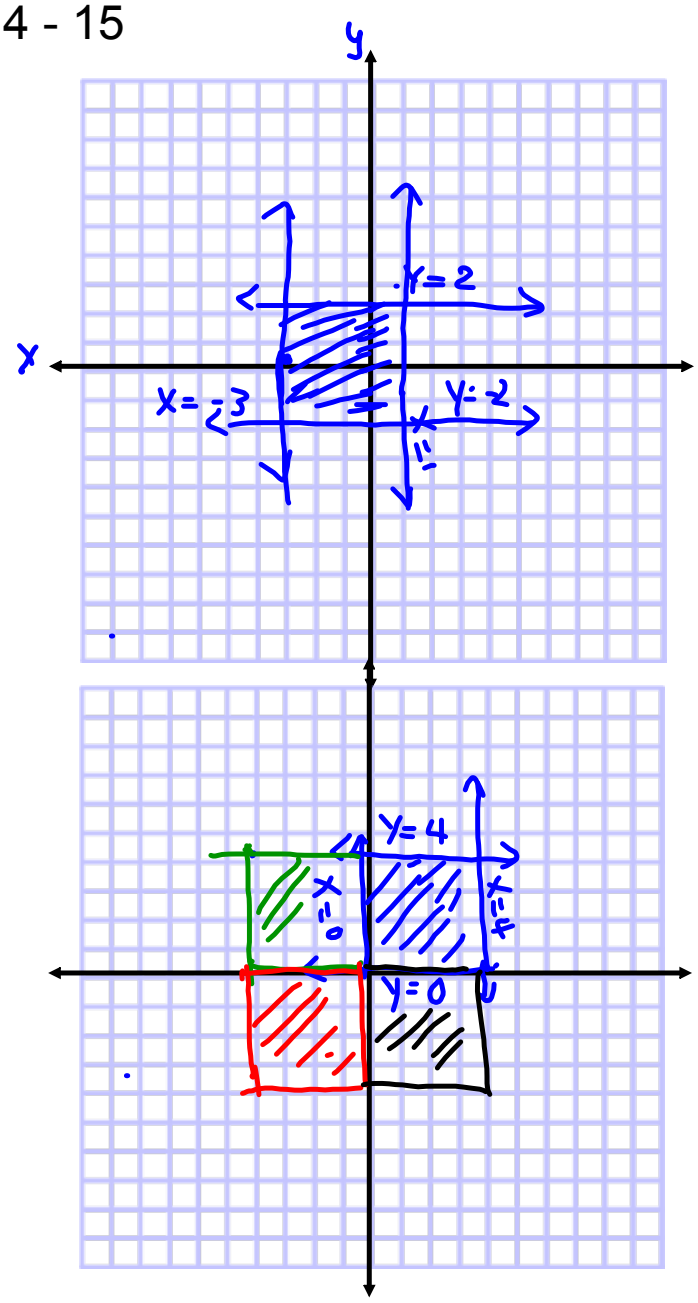
Problems with the homework....

Page 178-180 4 - 15

13.

$x-1=0$
$x=1$

$y+2=0$
$y=-2$



Part B

$y=4$
$y=0$
$x=0$
$x=4$

Homework Questions???

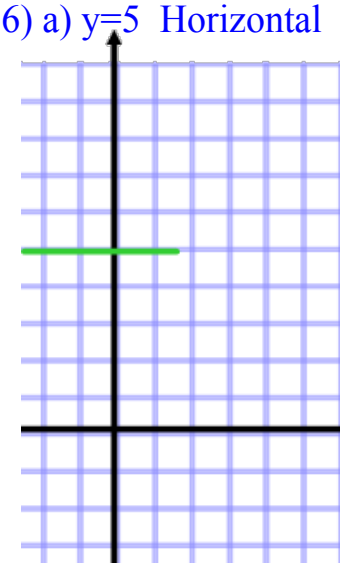
Page 178-179

4) a) i) x = -2 4b) iii) y = -2

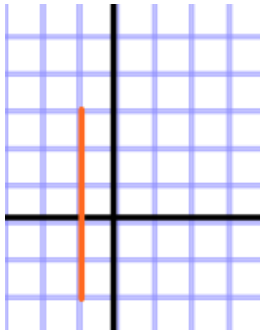
5) a) y = 7 Horizontal 5b) x - y = 3 Oblique 5c) x = -5 Vertical

5d) x + 9 = 0 Vertical 5e) 2y = 5 Horizontal 5f) y = 6-2x Oblique

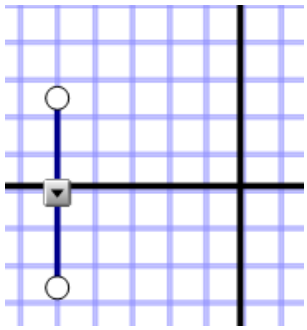
6) a) y=5 Horizontal



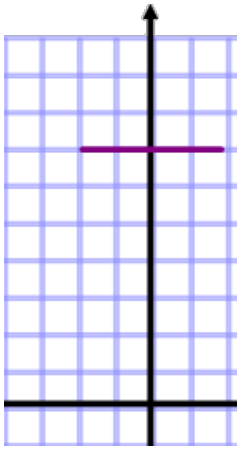
b) x= -1 Vertical



c) x=-5 Vertical



d) y= 7 Horizonta



7a) y = 2 b) x= 1 c) x = -5

8a) x-2 =0
x= -2

b) 2x +1 = 0
2x = -1
x = (-1/2)
x = -0.5

c) 2y -1 =0
2y = -1
y= (-1/2)
y= -0.5

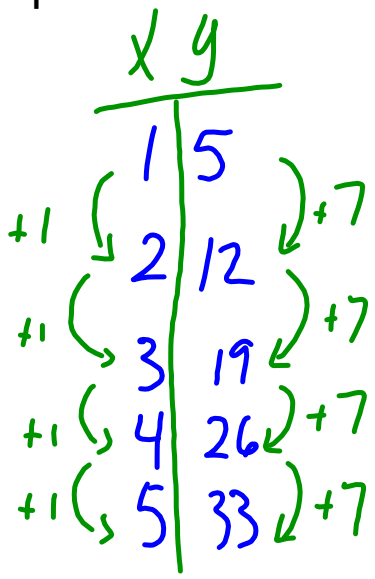
d) 2x-1=0
2x =1
x = (1/2)
x = 0.5

Class/Homework

Worksheet

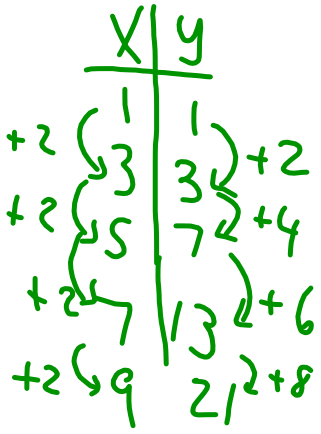
PAGE 178 - 180
#4 - #15, # 17, # 21

Linear Equation?

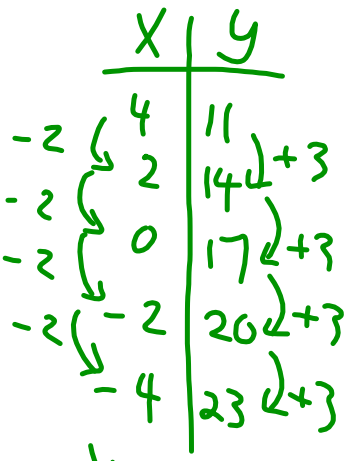


AD x increases by 1, y increase by 7

Yes

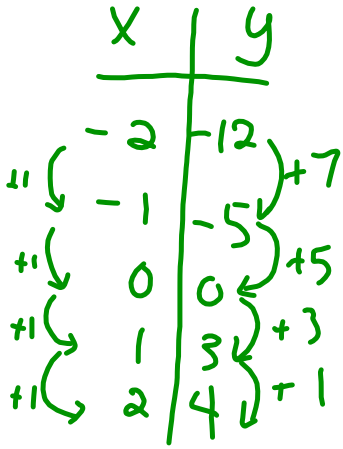


NO



YES

As x decreases by 2
y increases by 3



No

Attachments

Section 4.3 Worksheet.pdf