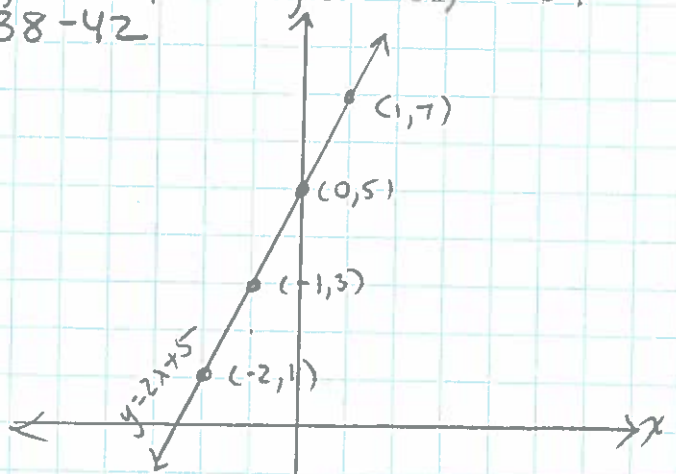


A #16 pg 219 #12-18 even, 21-22, 26-27, 30-31, 33-34
 pg 229 #5-10, 38-42

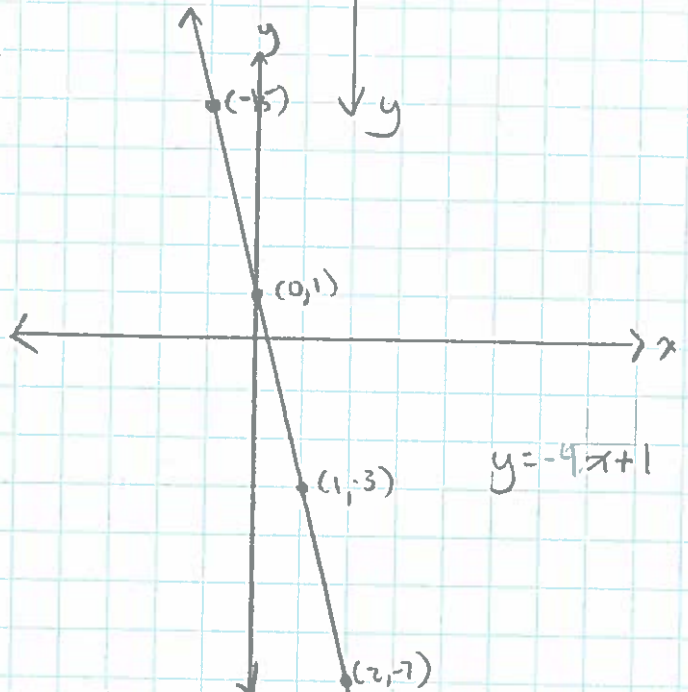
12.) $y - 2x = 5$
 $\frac{+2x + 2x}{y = 2x + 5}$

domain	Range	solution
x	$y = 2x + 5$	(x, y)
-2	$y = 2(-2) + 5$	$(-2, 1)$
-1	$y = 2(-1) + 5$	$(-1, 3)$
0	$y = 2(0) + 5$	$(0, 5)$
1	$y = 2(1) + 5$	$(1, 7)$



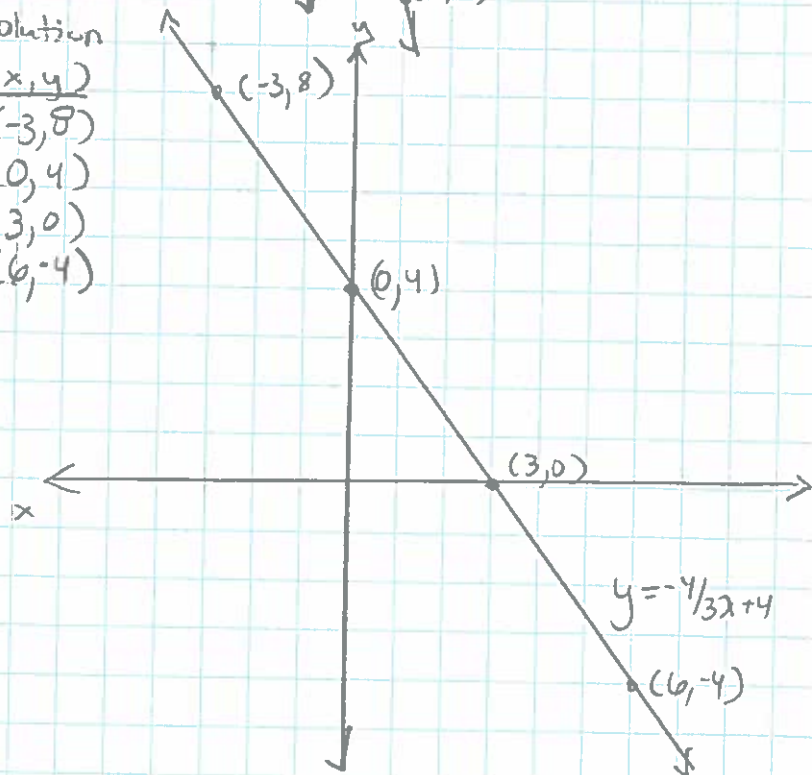
14.) $y + 4x = 1$
 $\frac{-4x - 4x}{y = -4x + 1}$

domain	Range	solution
x	$y = -4x + 1$	(x, y)
-1	$y = -4(-1) + 1$	$(-1, 5)$
0	$y = -4(0) + 1$	$(0, 1)$
1	$y = -4(1) + 1$	$(1, -3)$
2	$y = -4(2) + 1$	$(2, -7)$



16.) $3y + 4x = 12$
 $\frac{-4x - 4x}{3y = -4x + 12}$
 $\frac{y}{y} = \frac{-4x + 12}{3}$
 $y = -\frac{4}{3}x + 4$

Domain	Range	Solution
x	$y = -\frac{4}{3}x + 4$	(x, y)
-3	$y = -\frac{4}{3}(-3) + 4$	$(-3, 8)$
0	$y = -\frac{4}{3}(0) + 4$	$(0, 4)$
3	$y = -\frac{4}{3}(3) + 4$	$(3, 0)$
6	$y = -\frac{4}{3}(6) + 4$	$(6, -4)$



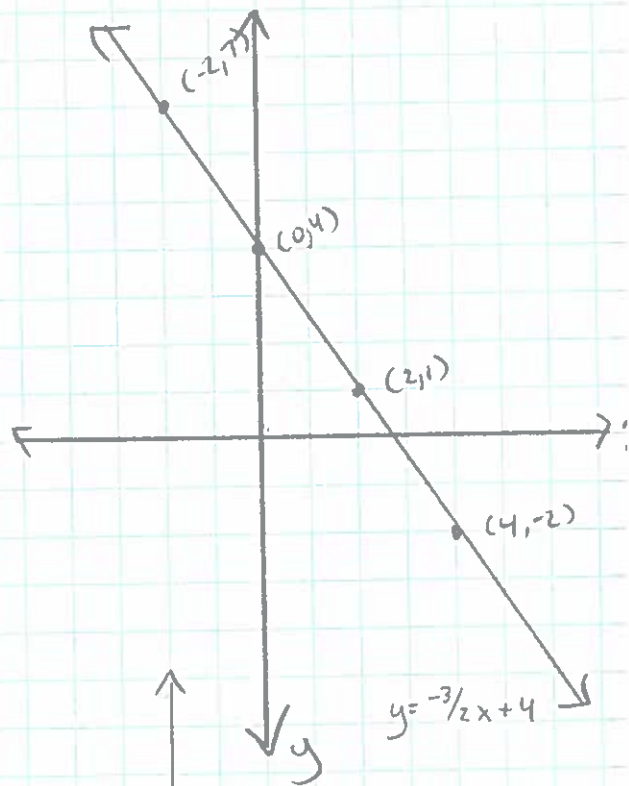
$$18) 3x + 2y = 8$$

$$\frac{-3x}{-3x} \quad \frac{-3x}{-3x}$$

$$\frac{2y = -3x + 8}{2} \quad \frac{-3x}{2}$$

$$y = -\frac{3}{2}x + 4$$

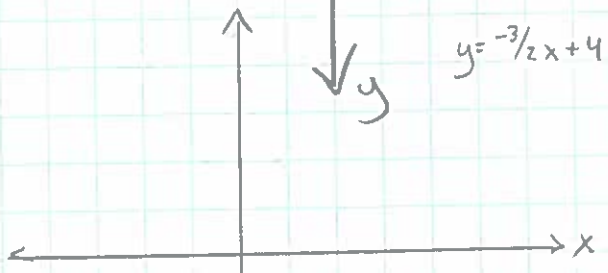
domain	Range	Solution
x	y = $-\frac{3}{2}x + 4$	(x, y)
-2	$y = -\frac{3}{2}(-2) + 4$	(-2, 7)
0	$y = -\frac{3}{2}(0) + 4$	(0, 4)
2	$y = -\frac{3}{2}(2) + 4$	(2, 1)
4	$y = -\frac{3}{2}(4) + 4$	(4, -2)



$$21) y = -4$$

horizontal

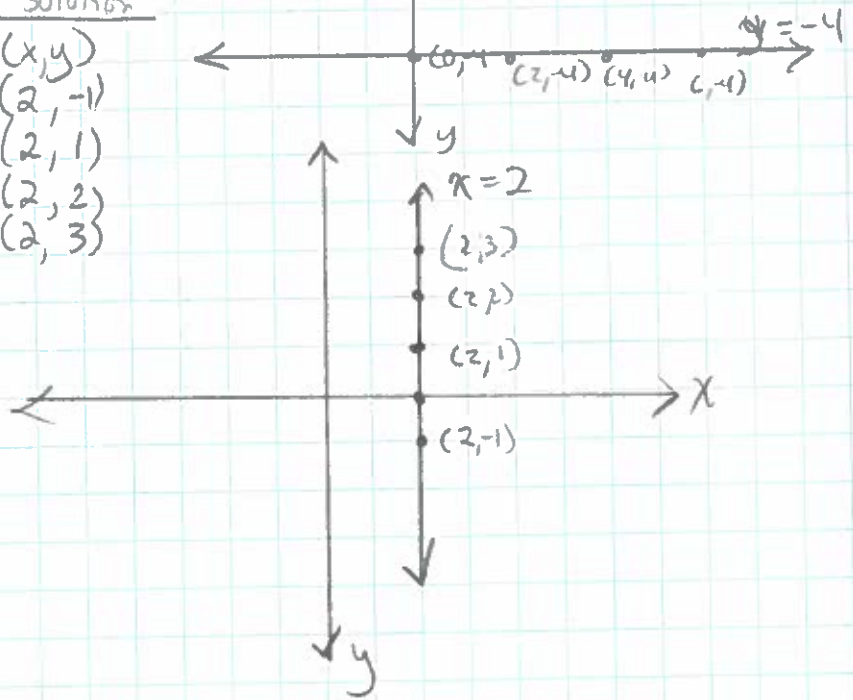
domain	range	solution
x	y = -4	(x, y)
0	↓	(0, -4)
2		(2, -4)
4		(4, -4)
6		(6, -4)



$$22) x = 2$$

Vertical

domain	range	solution
x		(x, y)
2	-1	(2, -1)
2	1	(2, 1)
2	2	(2, 2)
2	3	(2, 3)

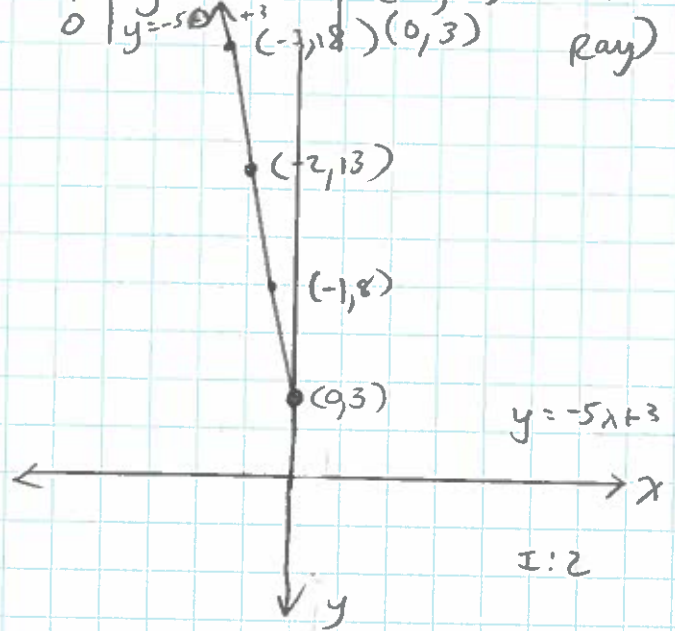
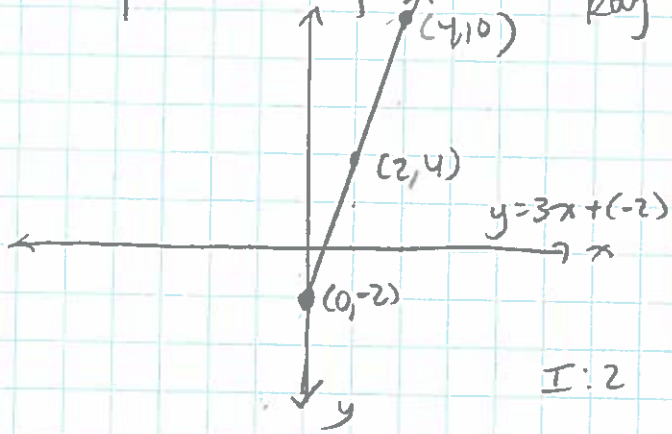


26) $y = 3x - 2$ domain: $x \geq 0$ range: $y \geq -2$

27) $y = -5x + 3$ domain: $x \leq 0$ range: $y \geq 3$

x	$y = 3x - 2$	(x, y)
0	$y = 3(0) - 2$	(0, -2)
2	$y = 3(2) - 2$	(2, 4)
4	$y = 3(4) - 2$	(4, 10)

x	$y = -5x + 3$	(x, y)
-3	$y = -5(-3) + 3$	(-3, 18)
-2	$y = -5(-2) + 3$	(-2, 13)
-1	$y = -5(-1) + 3$	(-1, 8)
0	$y = -5(0) + 3$	(0, 3)

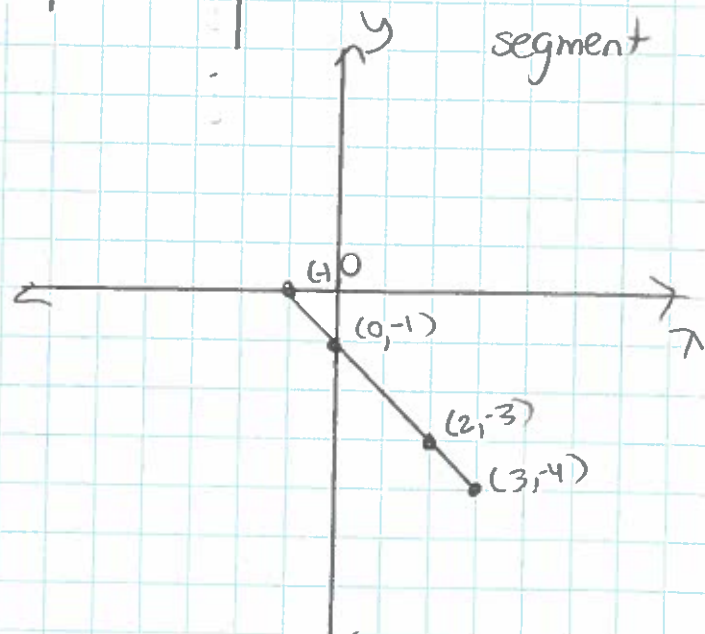
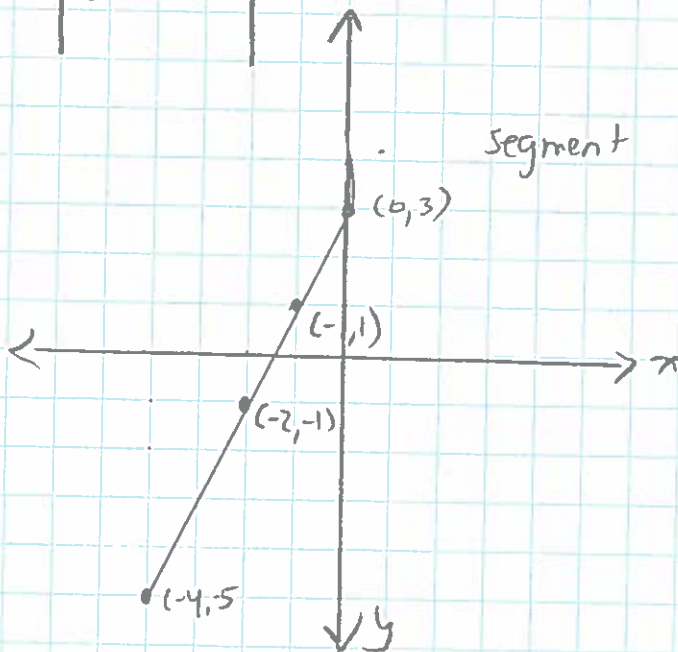


30) $y = 2x + 3$ domain: $-4 \leq x \leq 0$ range: $-5 \leq y \leq 3$

31) $y = -x - 1$ domain: $-1 \leq x \leq 3$ range: $-4 \leq y \leq 0$

x	$y = 2x + 3$	(x, y)
-4	$y = 2(-4) + 3$	(-4, -5)
-2	$y = 2(-2) + 3$	(-2, -1)
-1	$y = 2(-1) + 3$	(-1, 1)
0	$y = 2(0) + 3$	(0, 3)

x	$y = -x - 1$	(x, y)
-1	$y = 1 + (-1)$	(-1, 0)
0	$y = 0 + (-1)$	(0, -1)
2	$y = -2 + (-1)$	(2, -3)
3	$y = -3 + (-1)$	(3, -4)



33) D the range is $y \geq -2$
 It is a Ray and the y values
 will be greater than or equal to -2

↓ see graphs

pg 229 # 5-10, 38-42

5) $3x - 3y = 9$

x-int (3,0) y-int (0,-3)
 $3x = 9$ $-3y = 9$
 $x = 3$ $y = -3$

6) $-3x + 9y = -18$

x-int (6,0) y-int (0,-2)
 $-3x = -18$ $9y = -18$
 $x = 6$ $y = -2$

8) $2x + y = 10$

x-int (5,0) y-int (0,10)
 $2x = 10$ $y = 10$
 $x = 5$

10) $3x + 0.5y = 6$

x-int (2,0) y-int (0,12)
 $3x = 6$ $\frac{0.5y}{.5} = \frac{6}{.5}$
 $x = 2$ $y = 12$

34) (3,n) $Ax + 3y = 6$

$A(3) + 3n = 6$
 $3A + 3n = 6$

(n,5) $5x + y = 20$
 $5n + 5 = 20$
 $5n = 15$

$3(A) + 3(3) = 6$ $n = 3$
 $3A + 9 = 6$
 $3A = -3$
 $A = -1$

7) $4x + y = 4$

x-int (1,0) y-int (0,4)
 $4x = 4$ $y = 4$
 $x = 1$

9) $2x + 8y = 24$

x-int (12,0) y-int (0,-3)
 $2x = 24$ $-8y = 24$
 $x = 12$ $y = -3$

38) $2x - 6y = 6$

x-int (3,0) y-int (0,-1)
 $2x = 6$ $-6y = 6$
 $x = 3$ $y = -1$

Graph C

39) $2x - 6y = -6$

x-int (-3,0) y-int (0,1)
 $2x = -6$ $-6y = -6$
 $x = -3$ $y = 1$

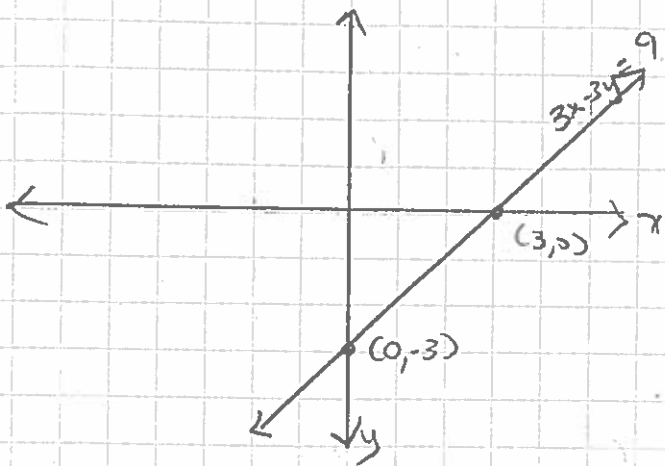
Graph B

40) $2x - 6y = 12$

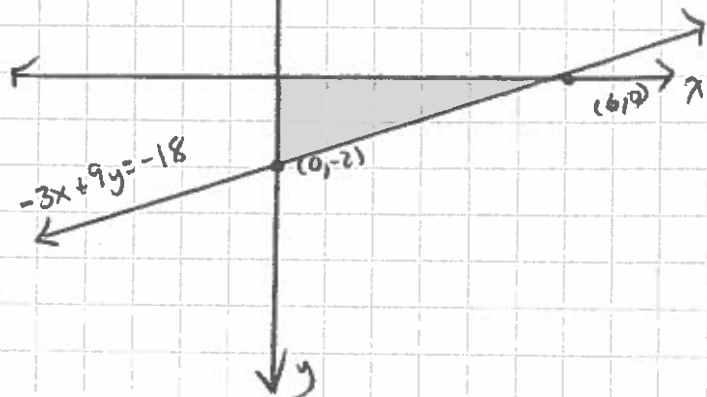
x-int (6,0) y-int (2,0)
 $2x = 12$ $-6y = 12$
 $x = 6$ $y = -2$

Graph A

5) (3,0) (0,-3)

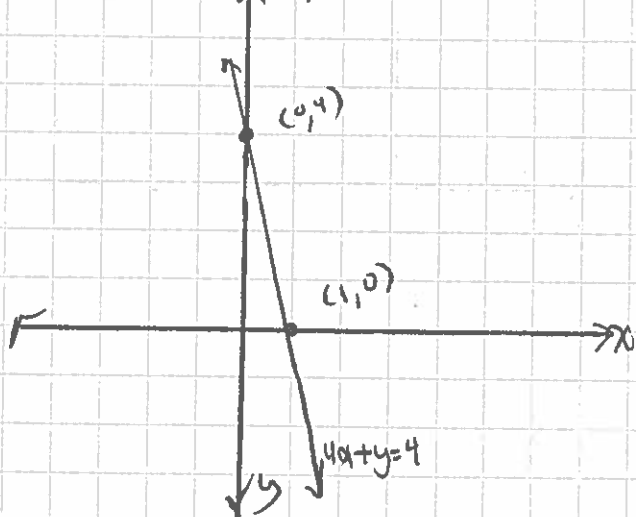


6) (6,0) (0,-2)

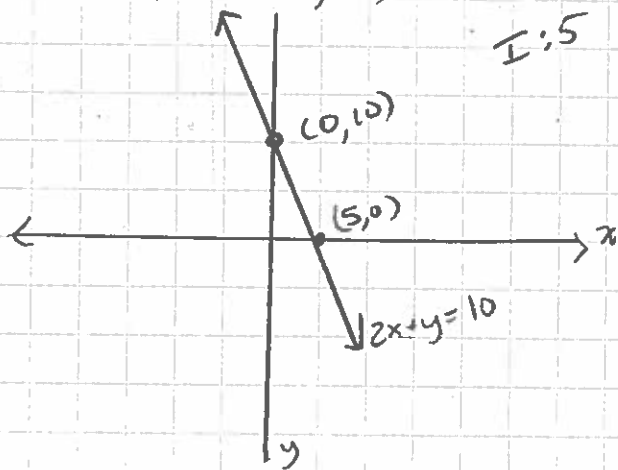


7.)

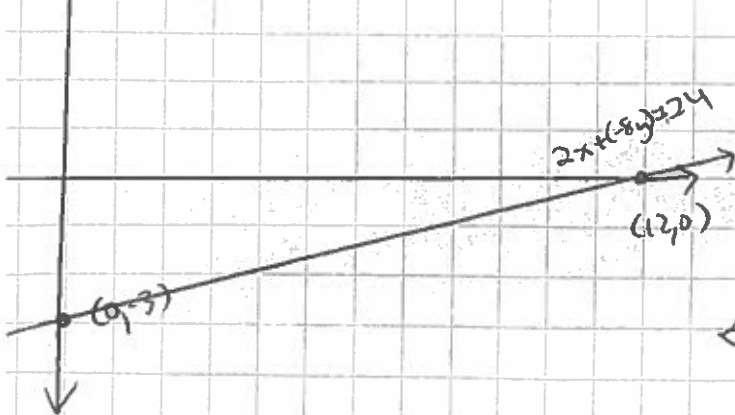
7.) (1,0) (0,4)



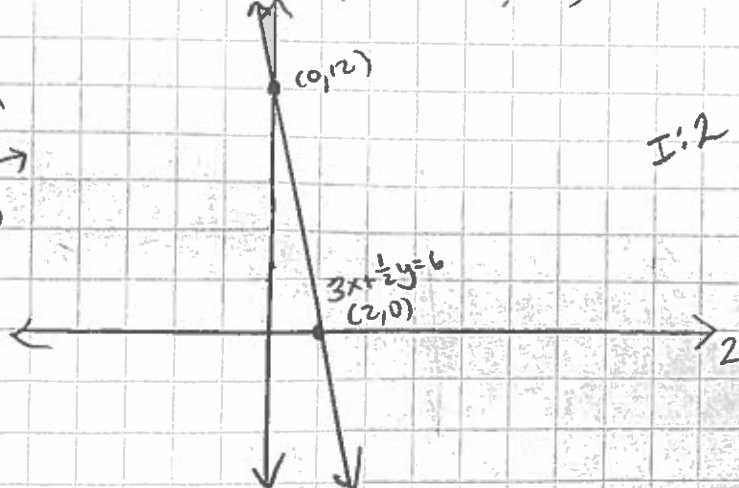
8) (5,0) (0,10)



9) (12,0) (0,-3)



10) (2,0) (0,12)



41.) Is it possible for a graph to not have an x-intercept?

Yes! A horizontal line doesn't have to have an x-intercept.

42.) $3x + 5y = k$ values of k so $x+y$ would be integers

$$3(\quad) + 5(\quad) = k$$

must be multiples of both 3 and 5

example $3x + 5y = 15$

x int	$3x = 15$	y int	$5y = 15$
	$x = 5$		$y = 3$
	$(5, 0)$		$(0, 3)$