Marisa Lad

02/14/2020 - Week 6 - Assignment

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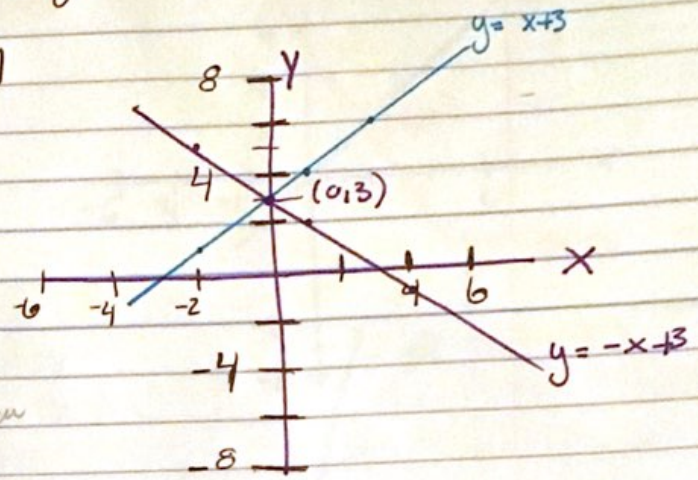


37) $y = x + 3$

$y = -x + 3$

elimination

$\frac{2y}{2} = \frac{6}{2}$

$y = 3$

therefore by elimination we know $x = 0$ in this set up

However

$y =$	$x+3$	
4	1+3	(1,4)
6	3+3	(3,6)
1	-2+3	(-2,1)

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

39) $y = 3x - 6$

substituting

$x + y = 6$

$x + 3x - 6 = 6$

$+6 \quad +6$

$\frac{4x}{4} = \frac{12}{4}$

$\boxed{x = 3}$

$y = 3(3) - 6$

$y = 3$ ✓

$3 + y = 6$

$-3 \quad -3$

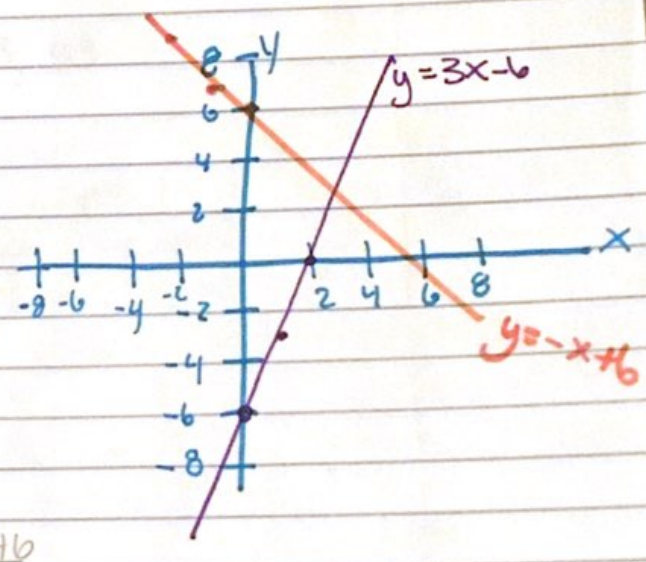
$y = 3$ ✓

or $x + y = 6$

$-x \quad -x$

$\boxed{y = -x + 6}$

now that we've solved for both x + y we can graph



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

$y =$	$-x+6$	
3	-3+6	(-3,9)
6	0+6	(0,6)
5	-1+6	(-1,7)

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02/14/2020 -Week 6- Assignment

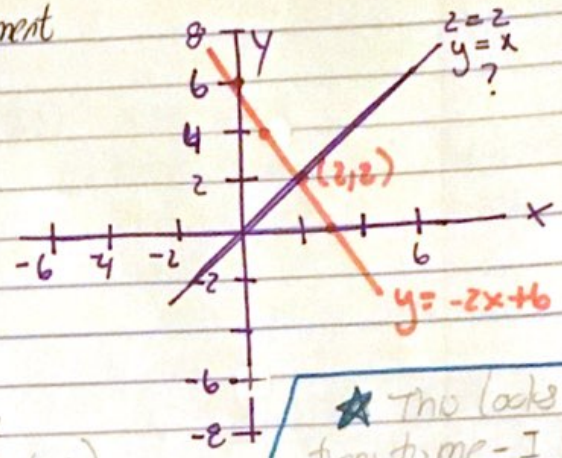
41) $y = x$

$2x + y = 6$

$2x + x = 6$

$\frac{3x}{3} = \frac{6}{3}$

$x = 2 ; y = 2$



y =	-2x+6	
6	-2(0)+6	(0,6)
4	-2(1)+6	(1,4)
0	-2(3)+6	(3,0)

$2x + y = 6$

$-2x \quad -2x$

$y = -2x + 6$

I looked at Answer: → I dont understand the purple line?

★ This looks funny to me - I looked at examples. Why does it go through zero if y=2 - why wouldn't it be a straight line parallel to x Axis??

Page 517 # 5, 6, 7, 8, 29, 31, 33, 43

5) $x = y - 3$

$2x - 3y = -11$

$2(y-3) - 3y = -11$

$2y - 6 - 3y = -11$

$+6 \quad +6$

$2y - 3y = -5$

$\frac{-y}{-1} = \frac{-5}{-1}$

$\boxed{y = 5}$

$x = 5 - 3$

$\boxed{x = 2}$

Solution = (2,5)

6) $y = -3x - 1$

$x - 2y = -5$

$x - 2(-3x - 1) = -5$

$x + 6x + 2 = -5$

$\frac{7x}{7} = \frac{-7}{7}$

$\boxed{x = -1}$

$y = -3(-1) - 1$

$y = 3 - 1$

$\boxed{y = 2}$

Solution (-1,2)

7) $x - 3y = -1$

$2x + 4y = 8$

$x = 3y - 1$

$2(3y - 1) + 4y = 8$

$6y - 2 + 4y = 8$

$+2 \quad +2$

$\frac{10y}{10} = \frac{10}{10}$

$\boxed{y = 1}$

$x = 3 \cdot 1 - 1$

$x = 2$

Solution (2,1)

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8) $5x - 2y = -7$

$8 = y - 4x$

$y - 4x = 8$

$+4x \quad +4x$

$y = 4x + 8$

$5x - 2(4x + 8) = -7$

$5x - 8x - 16 = -7$

$\frac{-3x}{-3} = \frac{9}{-3}$

$\boxed{x = -3}$

$y = 4(-3) + 8$

$y = -12 + 8$

$y = -4$

$(-3, -4)$

29) $x + y = 59$

① take away 23 from 59 then you get 36. divide by 2 = 18

one # is 18

one # 18 + 23 = 41

$\boxed{18 + 41 = 59}$

31) $x - y = 18$

$x = 3y$

$3y - y = 18$

$\frac{2y}{2} = \frac{18}{2}$

$y = 9$

$x = 3(9)$

$x = 27$

= (27 + 9)

33) $2x + 2y + 18 = 50$

A rectangle has 4 sides

if the length is 9 feet longer we need to subtract 18 from the total = 50 - 18 = 32

we can then divide by 4

32 ÷ 4 = 8 so if we let

2 · 8 we get 16 8 + 9 = 17 17 · 2 = 34

34 + 16 = 50 to perimeter.

43) 180° - starting temp

20° - al temp

↓ -10°F/min

oil ↑ 6

A) T = 180°F - (10°F/min + 6°F/min x)

? no idea?

B) $0t = 20 + 6^F(x)$

x = min

C) 180 - 10°/min - 20

16 Min = 0°

D 10 mins = 80° B21

D 10 mins = 80° oil

} can't visualize the formula but can eliminate through Add | Subtracting. w/o looking at Answers - How would I Solve?

2ord

Page 526 # 5, 6, 7

5) $x + y = 6$
$x - y = 4$

$2x = 10$
$\frac{2x}{2} = \frac{10}{2}$

$\boxed{x = 5, \; y = 1}$

$5 + y = 6$
$-5 \quad -5$
$y = 1$

$5 - 1 = 4$
$4 = 4$

6) $x - y = 3$
$x + y = 5$

$2x = 8$
$\frac{2x}{2} = \frac{8}{2}$

$x = 4$

$4 - y = 3$
$-4 \quad -4$

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

$\boxed{y = 1, \; x = 4}$

7) $x - 3y = 1$
$x + 3y = -5$

$2x = -4$
$\frac{2x}{2} = \frac{-4}{2}$

$x = -2$

$-2 - 3y = 1$
$+2 \quad +2$

$-3y = 3$
$\frac{-3y}{-3} = \frac{3}{-3}$

$y = -1$

$-2 - 3(-1) = 1$
$-2 + 3 = 1$

$\boxed{x = 2, \; y = -1}$

Page 541 # 1-6 All

1) Dashed line 2) Solid line 3) solutions

4) equal

5) $x - 2y < 6$

$y \leq -x + 4$

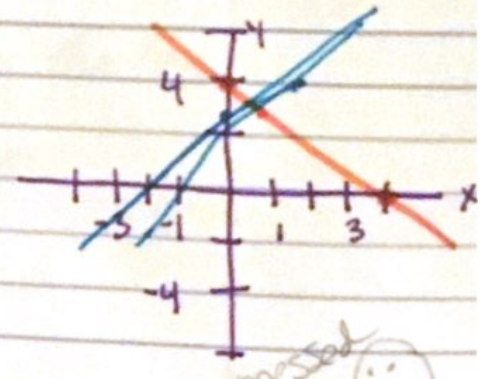
$y \leq$	$-x+4$	
4	$0+4$	$(0,4)$
0	$-4+4$	$(4,0)$
3	$-1+4$	$(-1,3)$

$x - 2y < 6$

$\frac{-2y < -x+6}{-2}$

$y < \frac{1}{2}x + 3$

y	$< \frac{1}{2}x+3$	
3	$0+3$	$(0,3)$
4	$2+3$	$(2,4)$
2	$-2+3$	$(-2,2)$



oops - messed up scale ☹

6) $3x - 4y \leq 12$

$y > -x + 4$

$3x - 4(-x+4) \leq 12$

$3x - 4x + 16 \leq 12$

$-x \quad -16 \leq 12 \quad -16$

$-x = -4$

$\boxed{x = 4}$

$3(4) - 4y \leq 12$

$12 \leq 12$

$-4y \leq 0$

not possible to solve?

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Page 545 # 3-6 All

3) Consistent w/ one solution @ pt. of intersection

4) Inconsistent - 0 solution - likely parallel

5) one equation - infinite # of solutions Along the line

6) Consistent - 1 solution at pt of intersection.