

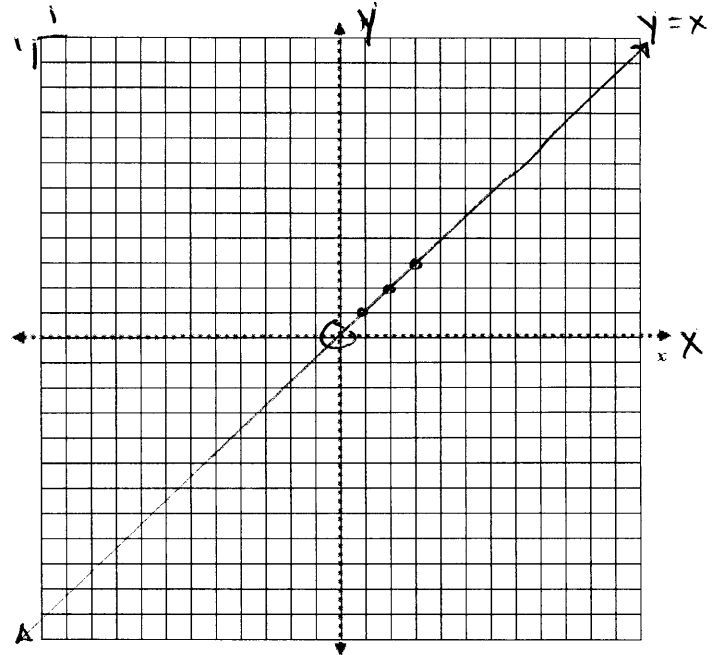
**Chapter 5.3 – The Rectangular Coordinate System - HW**

Problem 1.

Additional Work:

Equation:  $y = x$

x		$y = x$
1	1	$y = 1$
2	2	$y = 2$
3	3	$y = 3$

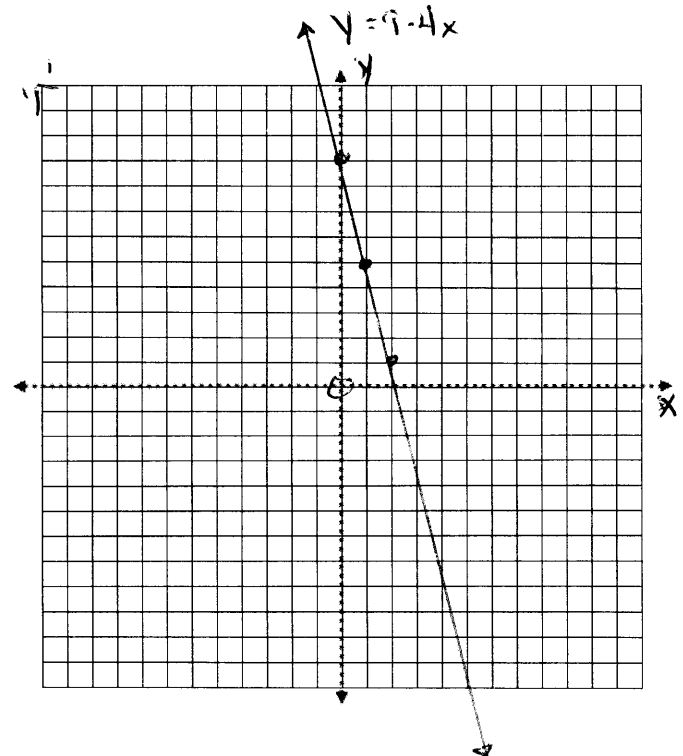


Problem 5.

Additional Work:

Equation:  $y = 9 - 4x$

x		$y = 9 - 4x$
0	9	$y = 9 - 4(0)$ $y = 9 - 0$ $y = 9$
1	5	$y = 9 - 4(1)$ $y = 9 - 4$ $y = 5$
2	1	$y = 9 - 4(2)$ $y = 9 - 8$ $y = 1$

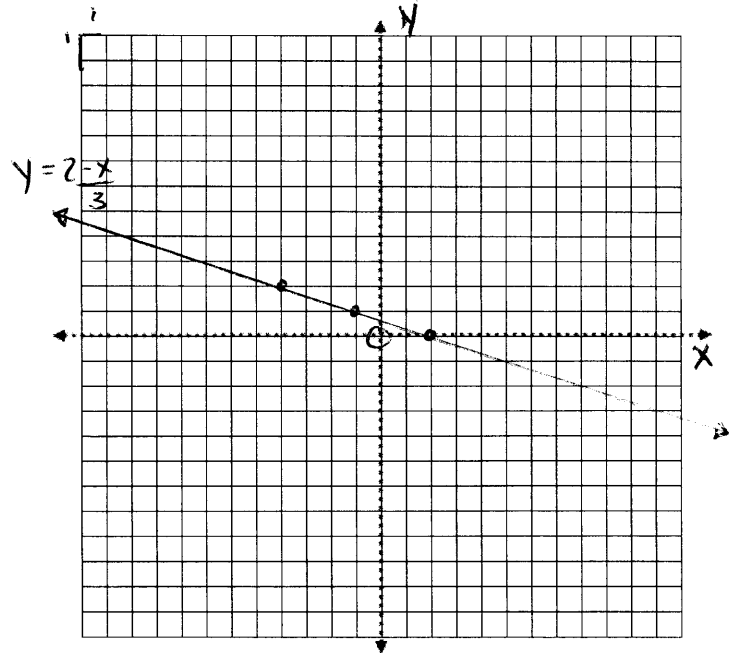


Problem 9. .

Equation:  $y = \frac{2-x}{3}$  *Be Smart*

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

Additional Work:

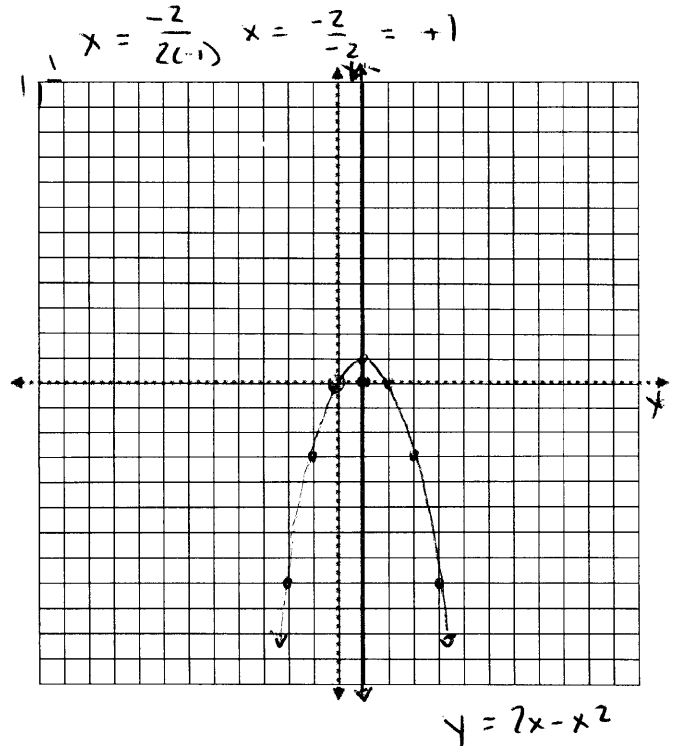


Problem 13. .

Equation:  $y = 2x - x^2$   $a = -1$   $b = +2$   $c = 0$

x	y	$y = 2x - x^2$
-2	-8	$y = 2(-2) - (-2)^2$ $= -4 - 4$
-1	-3	$y = 2(-1) - (-1)^2$ $= -2 - 1$
0	0	$y = 2(0) - (0)^2$ $= 0 - 0$
1	1	$y = 2(1) - (1)^2$ $= 2 - 1$
2	0	$y = 2(2) - (2)^2$ $= 4 - 4$
3	-3	$y = 2(3) - (3)^2$ $= 6 - 9$
4	-8	$y = 2(4) - (4)^2$ $= 8 - 16$ $= -8$

Additional Work:



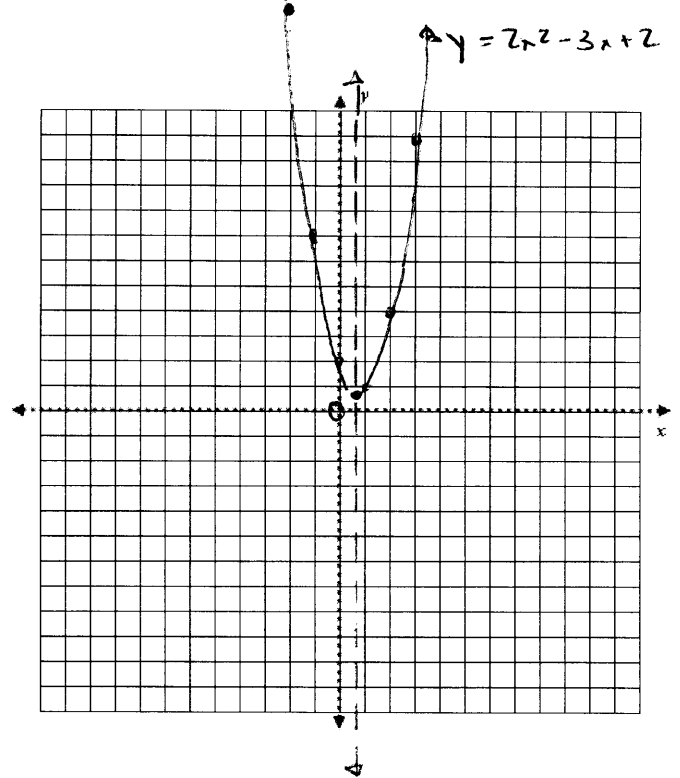
$a = 2 \quad b = -3 \quad c = +2 \quad x = \frac{+3}{2(2)} \quad x = \frac{3}{4}$

Problem 15. .

Equation:  $y = 2x^2 - 3x + 2$

x	y	$y = 2x^2 - 3x + 2$
-2	10	$y = 2(-2)^2 - 3(-2) + 2$ $= 2(+4) + 6 + 2$
-1	7	$y = 2(-1)^2 - 3(-1) + 2$ $= 2(+1) + 3 + 2$
0	2	$y = 2(0)^2 - 3(0) + 2$ $= 2(0) - 0 + 2$
$\frac{3}{4} (-1.75)$	1.875	$y = 2(-1.75)^2 - 3(-1.75) + 2$ $y = 2(-3.0625) - 2.25 + 2$
1	1	$y = 2(1)^2 - 3(1) + 2$ $y = 2(1) - 3 + 2$
2	4	$y = 2(2)^2 - 3(2) + 2$ $y = 2(4) - 6 + 2$
3	11	$y = 2(3)^2 - 3(3) + 2$ $y = 11$

Additional Works



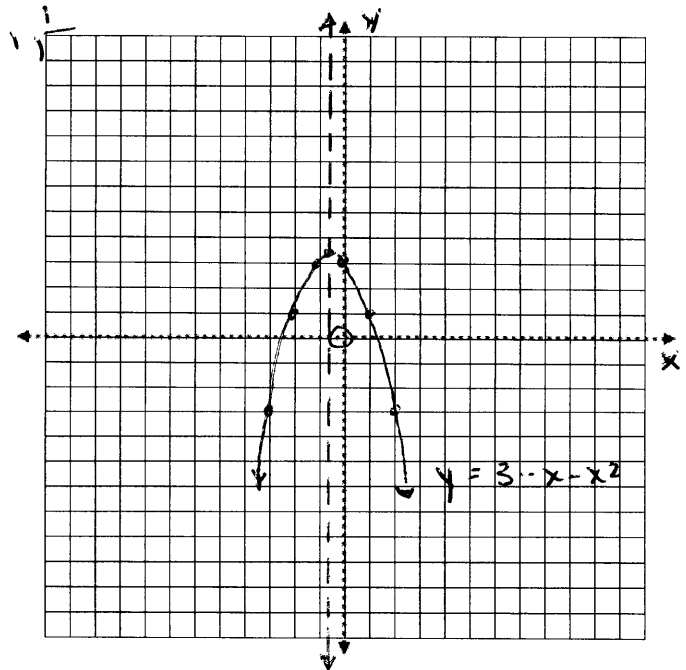
Problem 16. .

Equation:  $y = 3 - x - x^2$

x	y	$y = 3 - x - x^2$
-3	-3	$y = 3 - (-3) - (-3)^2$ $= 3 + 3 - 9$
-2	1	$y = 3 - (-2) - (-2)^2$ $= 3 + 2 - 4$
-1	3	$y = 3 - (-1) - (-1)^2$ $= 3 + 1 - 1$
$-\frac{1}{2} (-.5)$	3.25	$y = 3 - (-.5) - (.5)^2$ $= 3 + .5 - .25$
0	3	$y = 3 - (0) - (0)^2$ $= 3$
1	1	$y = 3 - (1) - (1)^2$ $= 3 - 1 - 1$
2	-3	$y = 3 - (2) - (2)^2$ $= 3 - 2 - 4$ $= -3$

Additional Work:

$a = -1 \quad b = -1 \quad c = +3 \quad x = \frac{+1}{2(-1)} = \frac{+1}{-2} = -\frac{1}{2}$



Problem 17..

Equation:  $y = x^2 - 3x + 1$

Additional Work:

$a = 1$   $b = -3$   $c = +1$

$x = \frac{-b}{2a} = \frac{+3}{2(1)} = \frac{3}{2}$

x		$y = x^2 - 3x + 1$
-1	5	$y = (-1)^2 - 3(-1) + 1$ $y = +1 + 3 + 1$
0	1	$y = (0)^2 - 3(0) + 1$ $y = 0 - 0 + 1$
1	-1	$y = (1)^2 - 3(1) + 1$
$\frac{3}{2}$ (1.5)	-1.25	$y = (1.5)^2 - 3(1.5) + 1$ $= 2.25 - 4.5 + 1$
2	-1	$y = (2)^2 - 3(2) + 1$ $= 4 - 6 + 1$
3	1	$y = (3)^2 - 3(3) + 1$
4	5	$y = (4)^2 - 3(4) + 1$ $= 16 - 12 + 1$

