Name _____ Date _____

a. Use the equation $y = 3x + 4$ to fill in the table

Choose any three values for x between -2 and 2 and then solve to find the corresponding value for y.

Value of "x"	Substitute x and solve for y $y = 3x + 4$	Value of "y"	Solution Point {ordered pair (x,y)}
−2	$y = 3(-2) + 4$	−2	$(-2, -2)$
−1	$y = 3(-1) + 4$	1	$(-1, 1)$
0	$y = 3(0) + 4$	4	$(0, 4)$
1	$y = 3(1) + 4$	7	$(1, 7)$
2	$y = 3(2) + 4$	10	$(2, 10)$

Plot the three points in the coordinate grid. Use a ruler to draw a line _exactly_ through the points.
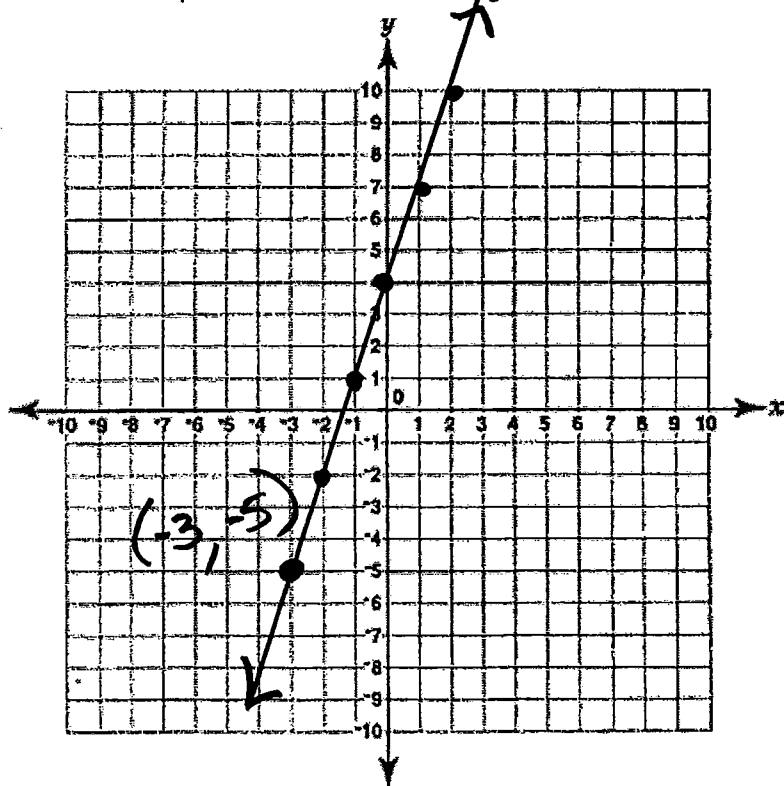
Find a different coordinate point that the line you drew passes through. Name that point $\overset{x \quad y}{(-3, -5)}$

Check that this point is a solution point of the equation y = 3x + 4
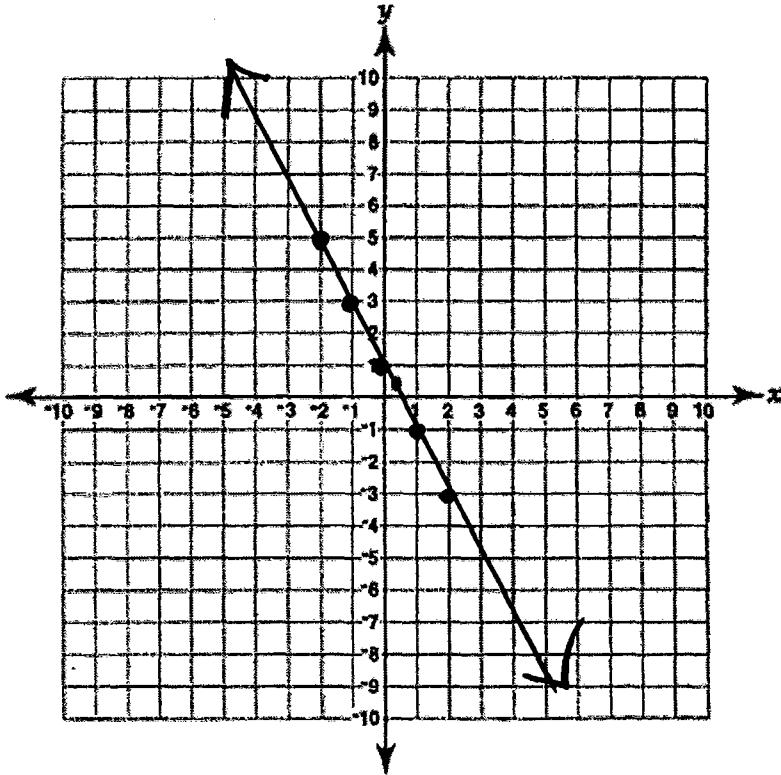(substitute and check that the equation is still true)

$$y = 3x + 4$$
$$-5 = 3(-3) + 4$$
$$-5 = -9 + 4$$
$$-5 = -5 \checkmark$$

b. Use the equation $y = -2x + 1$ to fill in the table

Choose any three values for x between -4 and 4 and then solve to find the corresponding value for y.

Value of "x"	Substitute x and solve for y $y = -2x + 1$	Value of "y"	Solution Point {ordered pair (x,y)}
-2	$y = -2(-2) + 1$	5	$(-2, 5)$
-1	$y = -2(-1) + 1$	3	$(-1, 3)$
0	$y = -2(0) + 1$	1	$(0, 1)$
1	$y = -2(1) + 1$	-1	$(1, -1)$
2	$y = -2(2) + 1$	-3	$(2, -3)$

Plot the three points in the coordinate grid. Use a ruler to draw a line _exactly_ through the points.

Find a different coordinate point that the line you drew passes through. Name that point (,)

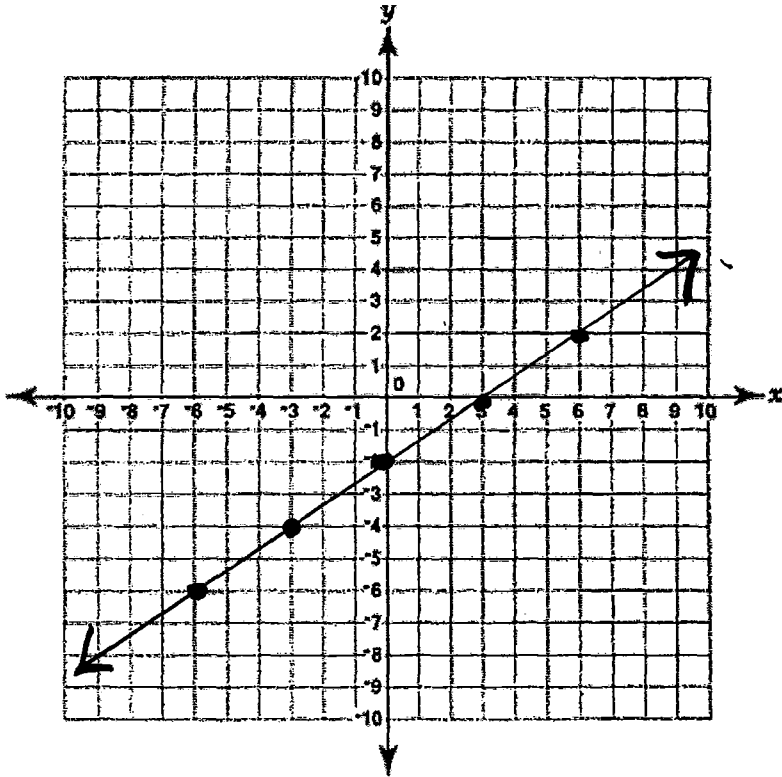Check that this point is a solution point of the equation y ~~= 3x + 4~~

(substitute and check that the equation is still true)

c. Use the equation $y = \frac{2}{3}x - 2$ to fill in the table → Multiples of the denominator

hoose any three values for x between -2 and 2 and then solve to find the corresponding value for y.

x	$y = \frac{2}{3}x - 2$	y	(x,y)
-6	$y = \frac{2}{3}\left(\frac{-6}{1}\right) - 2$	-6	(-6, -6)
-3	$y = \frac{2}{3}\left(\frac{-3}{1}\right) - 2$	-4	(-3, -4)
0	$y = \frac{2}{3}(0) - 2$	-2	(0, -2)
3	$y = \frac{2}{3}(3) - 2$	0	(3, 0)
6			(6, 2)

Plot the three points in the coordinate grid. Use a ruler to draw a line _exactly_ through the points.

Find a different coordinate point that the line you drew passes through. Name that point (,)

Check that this point is a solution point of the equation $y = \frac{2}{3}x - 2$
(substitute and check that the equation is still true)

Homework

Make a table of 5 points like the examples we did together in class.

Graph the points and draw the line they are on.

1. $y = 2x + 1$

2. $y = \frac{1}{2}x - 3$

3. $y = 4x - 5$

4. $y = -3x + 4$

5. $y = \frac{3}{4}x - 1$

6. $y = -2x + 1$