#6

Name Key

Date _____

8A; Algebra 1

Period _____

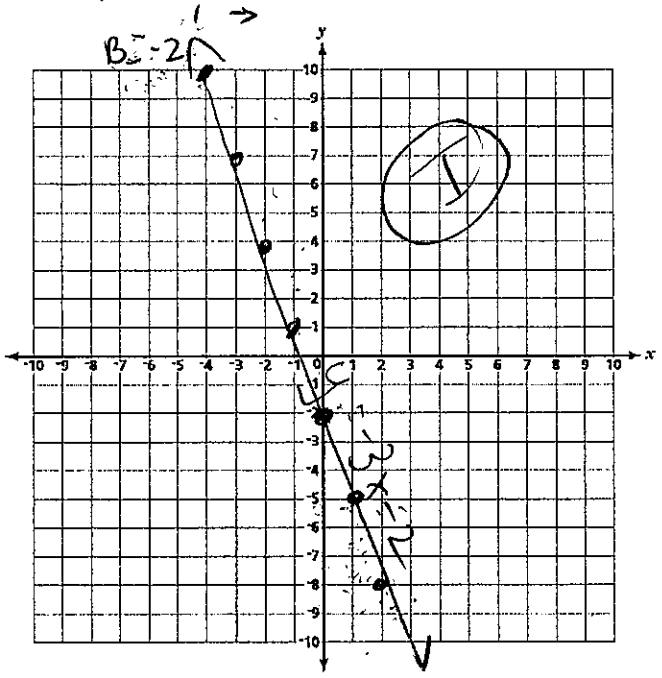
Homework

1) Graph each equation using the slope and y-intercept

(a) $y = -3x - 2$

$m = \frac{-3}{1}$ ↓ →

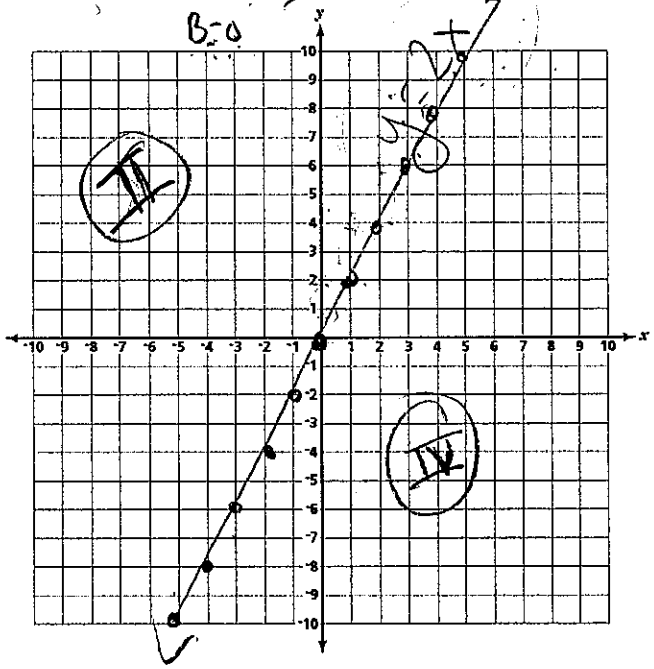
$B = -2$



(b) $y = 2x$

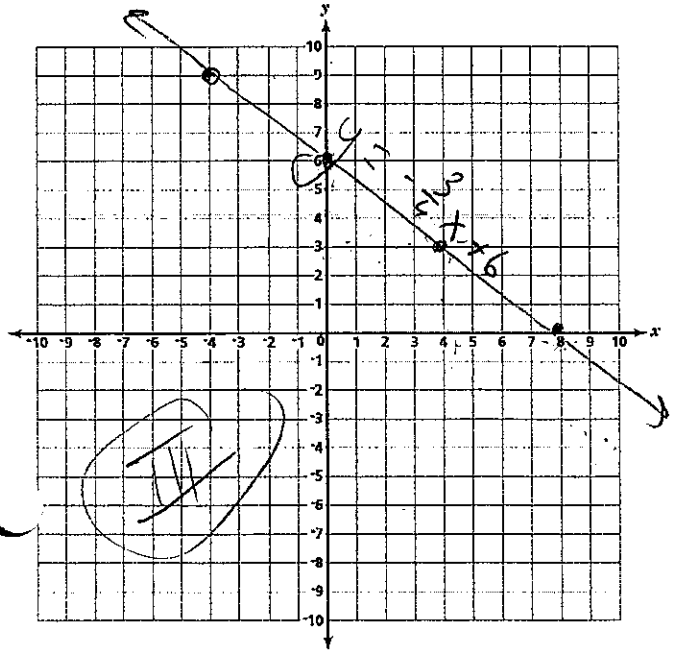
$m = \frac{2}{1}$ ↑ →

$B = 0$



(c) $y = -\frac{3}{4}x + 6$

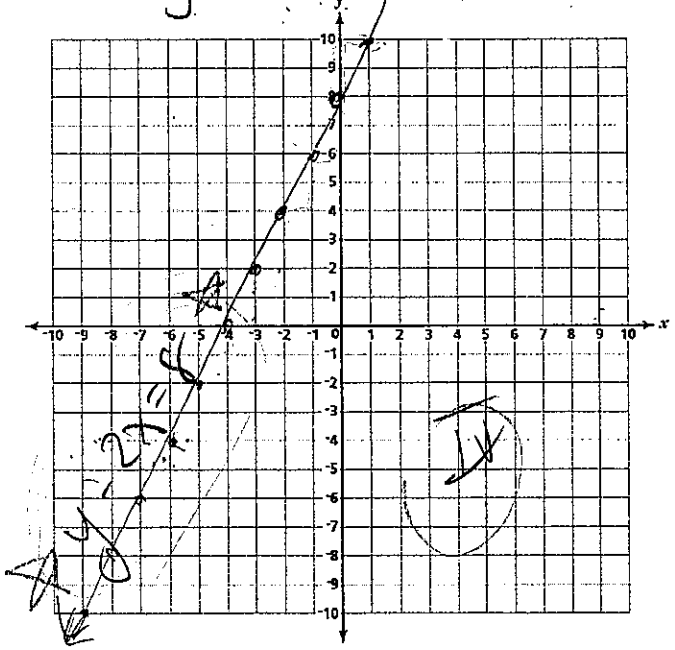
$m = \frac{-3}{4}$ ↓ → $B = 6$



(d) $y - 2x = 8$

$+2x \quad +2x$

$y = 2x + 8$ $m = \frac{2}{1}$ $B = 8$



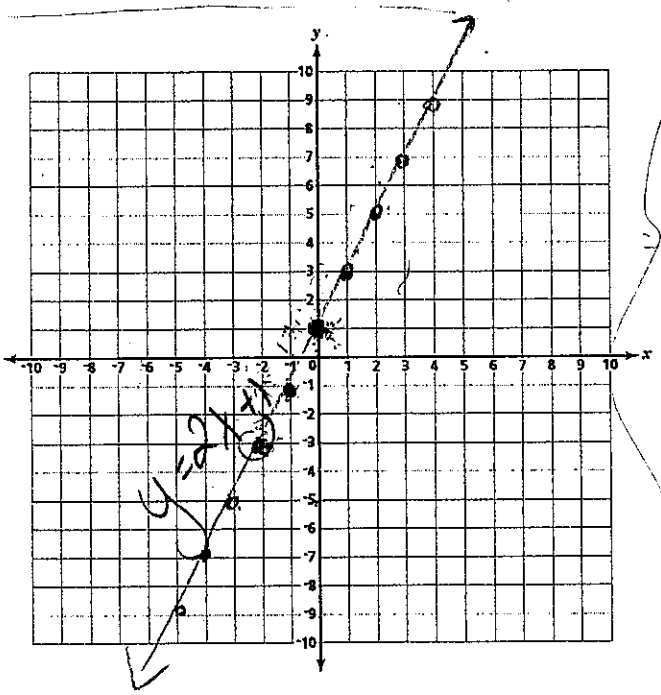
2) (a) Draw the line through (-2, -3) whose slope is 2. $\frac{2}{1}$

(b) What appears to be the y-intercept of this line? 1

(c) Use the slope of the line and the answer to part (b) to write an equation of the line. $y = 2x + 1$

(d) Do the coordinates of point (-2, -3) satisfy the equation written in part c? yes

Yes b/c line goes through the point



$y = 2x + 1$ ★

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

$-3 = -4 + 1$

$-3 = -3$ ✓ yes

3) (a) Is (1,1) a point on the graph of $3x - 2y = 1$ yes

(b) What is the slope of $3x - 2y = 1$ $\frac{3}{2}$

(c) Draw the graph of $3x - 2y = 1$ using the point (1,1) and the slope of the line.

(d) Why is it easier to use the point (1,1) rather than the y-intercept the draw this graph?

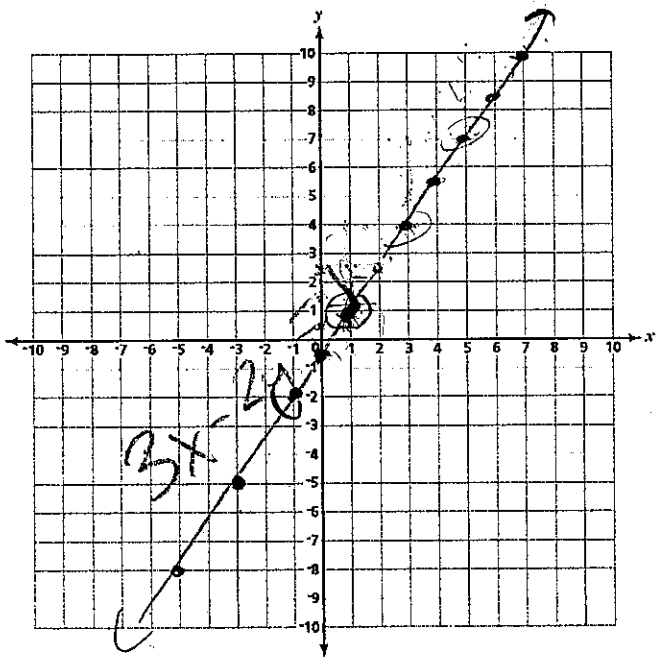
→ B/c you would be counting by halves

$3x - 2y = 1$

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

$3 - 2 = 1$

$1 = 1$ ✓



$3x - 2y = 1$

$-3x \quad -3x$

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

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

$m = \frac{3}{2}$

$B = -\frac{1}{2}$