Algebra I

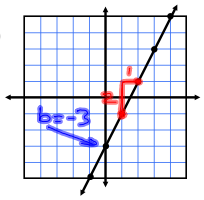
~~8-5~~ 5-1

(Supplement)

Writing Equations from Graphs

Write the equation for each line graphed.

1)

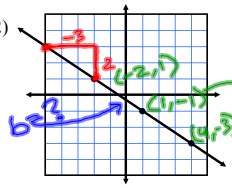


$y = mx + b$

$y = 2x + (-3)$

$m = \frac{rise}{run} = \frac{2}{1} = 2$

2)



$y = mx + b$

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

sub in point

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

$-1 = -\frac{2}{3} + b$

$-1 + \frac{2}{3} = -\frac{2}{3} + \frac{2}{3} + b$

$-\frac{1}{3} = b$

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

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

$-\frac{3}{3} + \frac{2}{3}$

Graph the line for the following equation.

3) $2x + 3y - 9 = 0$

$2x - 2x + 3y - 9 + 9 = 0 - 2x + 9$

$\frac{3y}{3} = \frac{-2x + 9}{3}$

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

$m = -\frac{2}{3}$ $\frac{rise}{run}$

$b = 3$