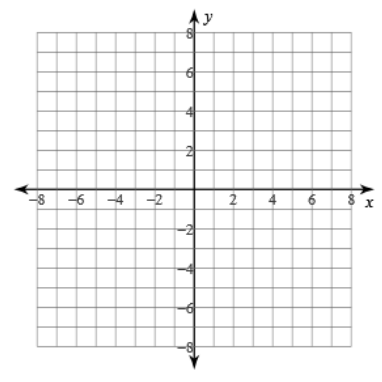
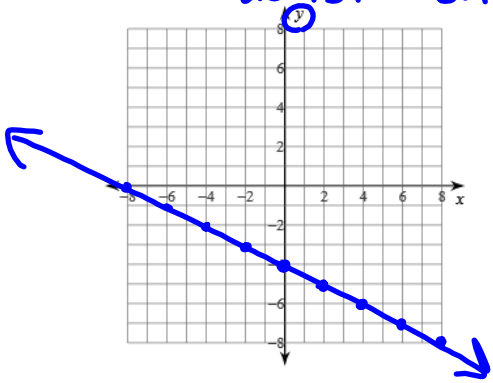


$y = mx + b$ $m = \text{slope} = \frac{\text{rise}}{\text{run}}$ $\begin{matrix} \text{up/down} \\ \text{left/right} \end{matrix}$
 $b = \text{y-intercept}$ (do 1st) Name _____

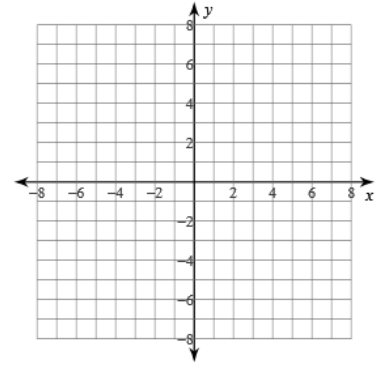
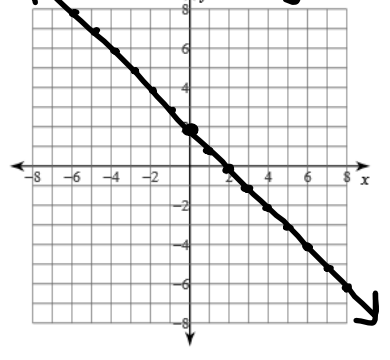
5.1B Graphing Linear Equations (with Delta Math) Date _____ Period _____

Use the equation to state the slope and y-intercept. Graph the line on paper and on Delta Math.

- $y = mx + b$
 • 1) $y = -\frac{1}{2}x - 4$ $m = -\frac{1}{2}$ down 1 right 2 $m = \underline{-\frac{1}{2}}$ $b = \underline{-4}$
 do 1st - on y-axis



- $y = mx + b$
 • 3) $y = -x + 2$ $m = -1$ down 1 right 1 $m = \underline{-1}$ $b = \underline{2}$
 do 1st on y-axis



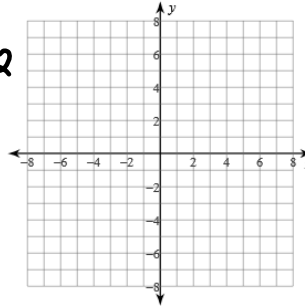
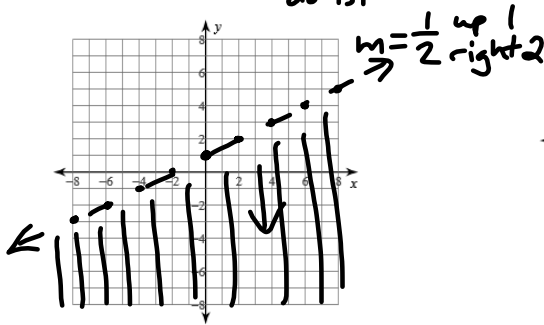
- 2) $y = 5x - 2$ $m = \underline{\quad}$ $b = \underline{\quad}$
 4) $y = \frac{1}{3}x - 6$ $m = \underline{\quad}$ $b = \underline{\quad}$

- < dashed line
- > solid line
- ≤ solid line
- ≥ solid line
- < Shade below
- ≤ below
- > shade above
- ≥ above

Solve the inequality for y, if necessary. State the slope and y-intercept. Graph the inequality on paper and on Delta Math.

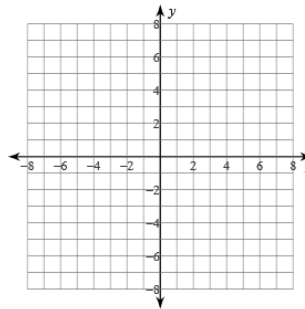
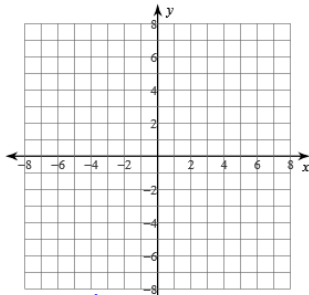
5) $y < \frac{1}{2}x + 1$ $m = \frac{1}{2}$ $b = 1$
do 1st

6) $x - 3y \leq 18$ $m = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$



7) $y > -2x - 1$ $m = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$

8) $y \leq -\frac{1}{2}x - 1$ $m = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$



< > must reverse the symbol when ÷ by a negative

9) ~~$x - y < -5$~~ $m = 1$ $b = 5$

10) $-x + y \geq -3$ $m = \underline{\hspace{1cm}}$ $b = \underline{\hspace{1cm}}$

