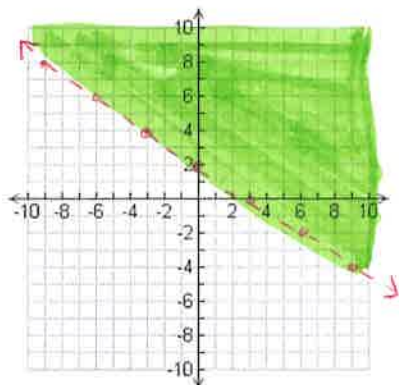


Algebra 1
5.5 Notes Day 2

Warm Up: Graph the following linear inequalities.

1.) $y > -\frac{2}{3}x + 2$

$m = \frac{2}{-3}$
 $b = (0, 2)$



$0 > -\frac{2}{3}(0) + 2$
 $0 > 2$
False

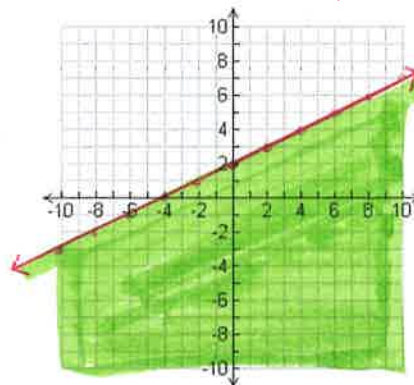
2.) $x - 2y \geq -4$

$\frac{-x}{-2} \geq \frac{-x-4}{-2}$

$y \leq \frac{1}{2}x + 2$

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

$b = (0, 2)$

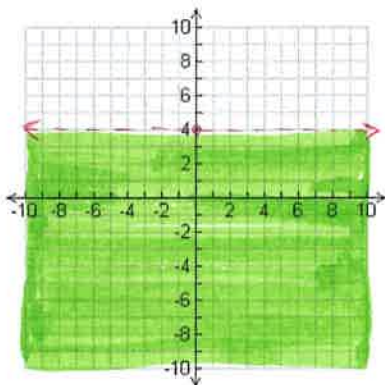


$0 - 2(0) \geq -4$
 $0 \geq -4$ True

Special Cases:

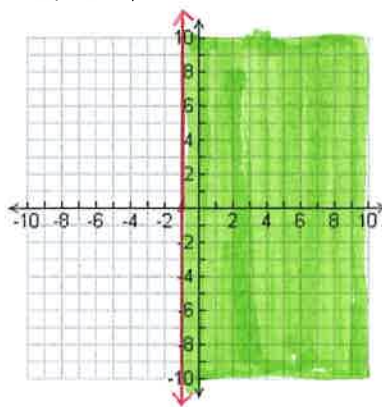
3.) $y < 4$

$0 < 4$
True



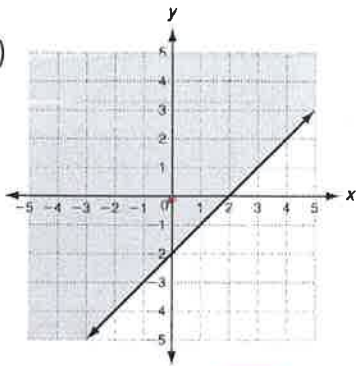
4.) $x \geq -1$

$0 \geq -1$
True



Write the inequality that represents each graph.

5.)

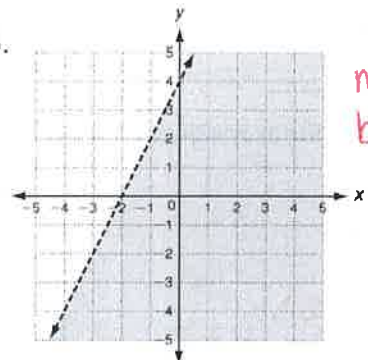


$y = mx + b$
 $y\text{-int}(b) = -2$
 $m = \frac{1}{1}$

$y \geq x - 2$
 $0 \square 0 - 2$
 $0 \square -2$

$y \geq x - 2$

6.)

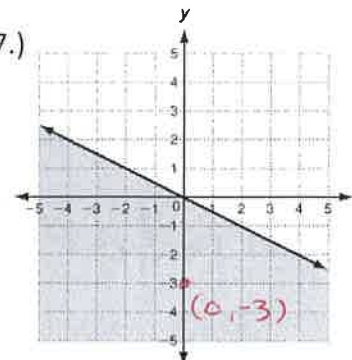


$m = 2$
 $b = 4$

$y < 2x + 4$
 $0 \square 2(0) + 4$

$0 \square 4$ $y < 2x + 4$

7.)

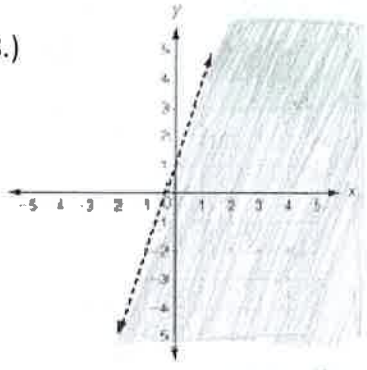


$m = -\frac{1}{2}$
 $b = (0, 0)$

$y \leq -\frac{1}{2}x + 0$
 $-3 \square -\frac{1}{2}(0) + 0$

$-3 \square 0$ $y \leq -\frac{1}{3}x$

8.)

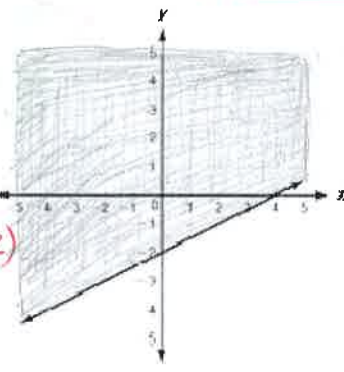


$m = \frac{3}{1}$
 $b = (0, 1)$

$y < 3x + 1$
 $0 \square 3(0) + 1$
 $0 \square 1$

$y < 3x + 1$

9.)

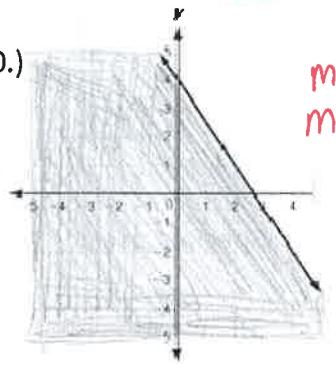


$m = \frac{1}{2}$
 $b = (0, -2)$

$y \geq \frac{1}{2}x - 2$
 $0 \square \frac{1}{2}(0) - 2$
 $0 \square -2$

$y \geq \frac{1}{2}x - 2$

10.)



$m = 4$
 $m = -\frac{3}{2}$

$y \leq -\frac{3}{2}x + 4$
 $0 \square -\frac{3}{2}(0) + 4$
 $0 \square 4$

$y \leq -\frac{3}{2}x + 4$