
September 27, 2011

**No Warm-Up...
...student assessment instead**

Get out homework:
pg 90 #5-19 all

$$14) (6,7) m = \frac{2}{3}$$

$$y = mx + b$$

$$7 = \frac{2}{3}(6) + b$$

$$7 = 4 + b$$

$$-4 \quad -4$$

$$3 = b$$

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

9/27 - Graphing Linear Inequalities in 2 variables

$$y < 2x + 3$$

How many answers? infinite #

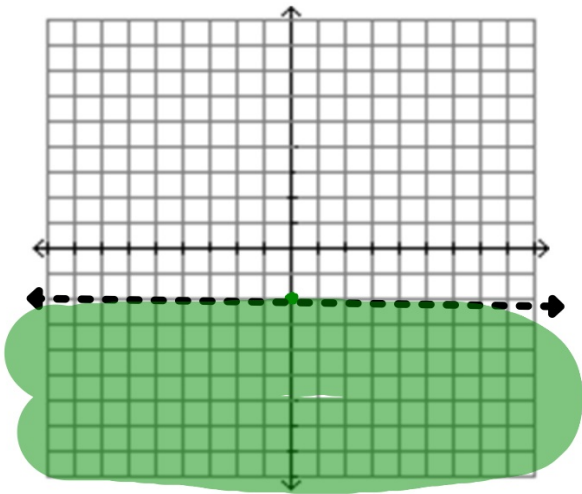
What do the answers look like?

infinite # of points

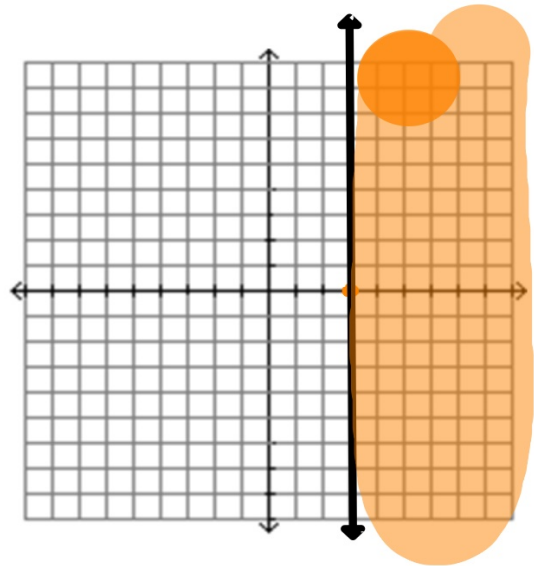
⇒ graph that is shaded

Graph each:

$y < -2$
↑ dotted line
↑ Below



$x \geq 3$
↑ solid line
↑ to the right



Graph each:

Always check a point if the equation is in standard form.

$$x + y < 2$$

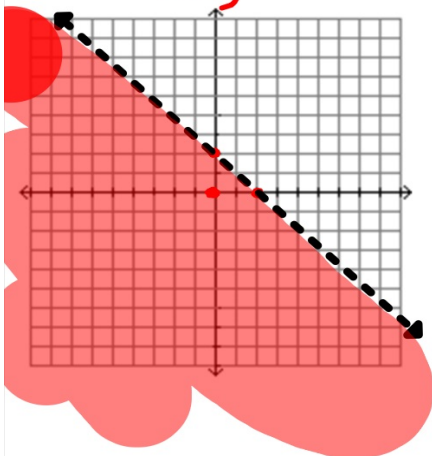
$$2x - y \geq -1$$

$$3x - 2y \leq 6$$

Check (0,0)

$$0 + 0 < 2?$$

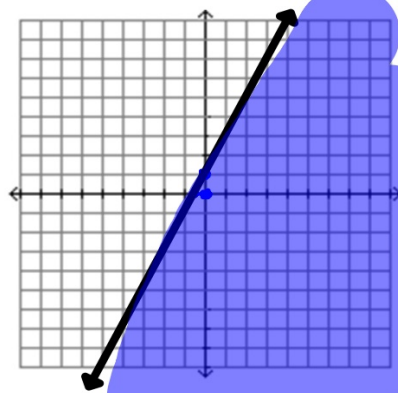
Yes



Check (0,0)

$$2(0) - 0 \geq -1$$

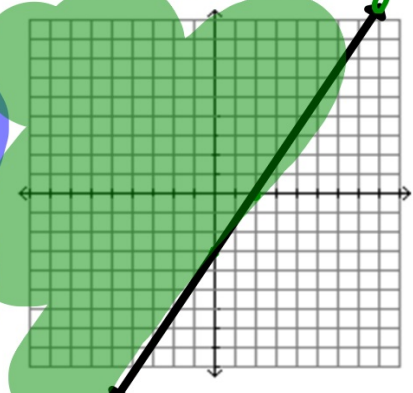
$$0 \geq -1 \text{ yes}$$



Check (0,0)

$$3(0) - 2(0) \leq 6$$

$$0 - 0 \leq 6 \text{ yes}$$



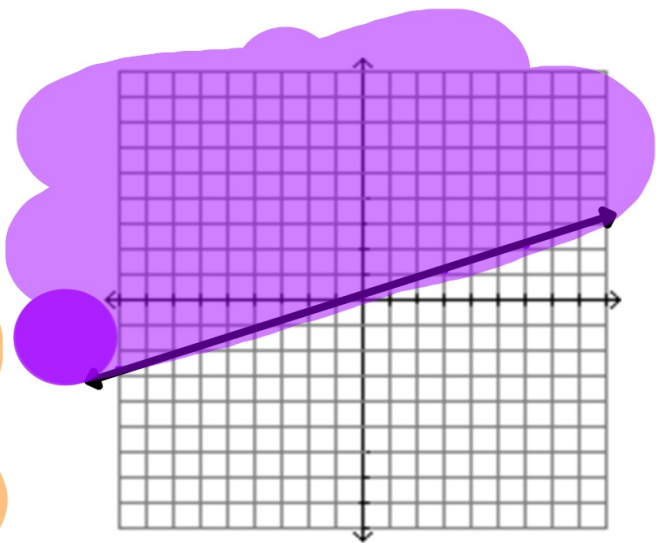
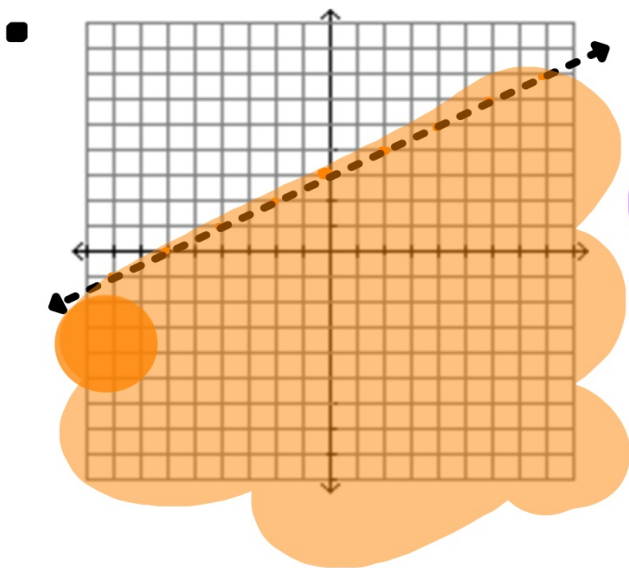
Graph each:

Slope-intercept form

$$y < \frac{1}{2}x + 3$$

↑
below <, ≤
above >, ≥

$$\begin{aligned} 2x - 6y &\leq -1 \\ -2x & \quad -2x \\ \frac{-6y}{-6} &\leq \frac{-2x}{-6} - \frac{1}{-6} \\ y &\geq \frac{1}{3}x + \frac{1}{6} \end{aligned}$$



Homework:

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17-36 all

due Wednesday

TEST on Mon?