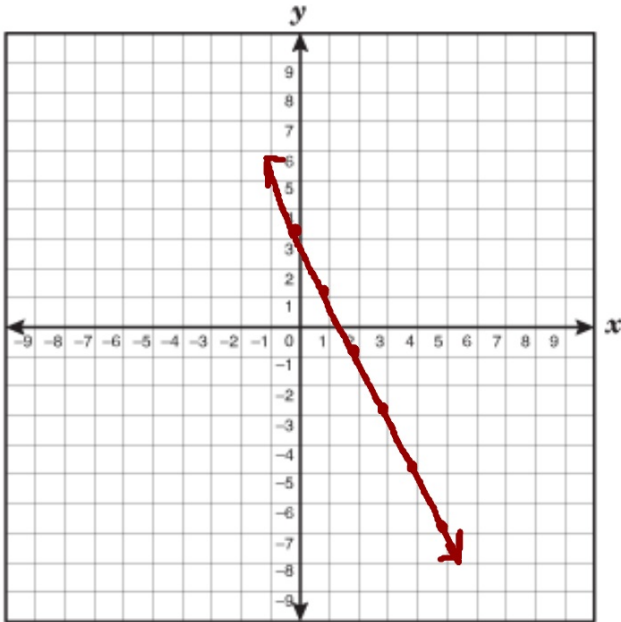


Lesson 5-3A - Standard Form

Algebra - January 11, 2012

Put your name on the back

1) Transform and Graph the line $8x + 4y = 12$



$$\begin{aligned} 8x + 4y &= 12 \\ -8x & \quad -8x \\ \hline 4y &= -8x + 12 \\ \frac{4y}{4} &= \frac{-8x}{4} + \frac{12}{4} \\ y &= \frac{-2x}{1} + 3 \end{aligned}$$

1) Transform "standard form" to slope-intercept form.

2) Graph vertical and horizontal lines.

Transform "standard form" to **slope-intercept** form.

In standard form, the x and the y are on the same side.

standard form

$$\begin{array}{c} 3x + y = 5 \\ \cancel{-3x} \quad \quad \quad \cancel{-3x} \end{array}$$

slope-intercept form

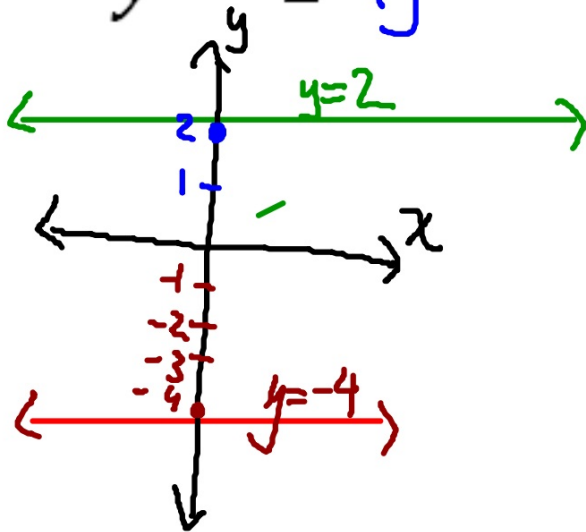
$$y = -3x + 5$$

$y = -3x + 5$



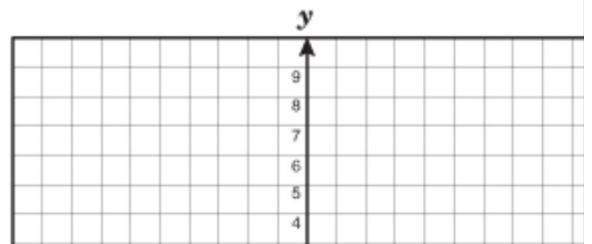
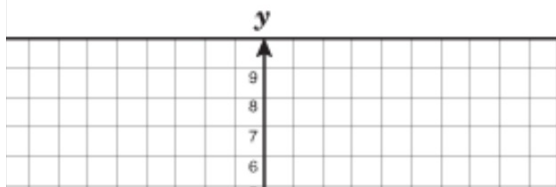
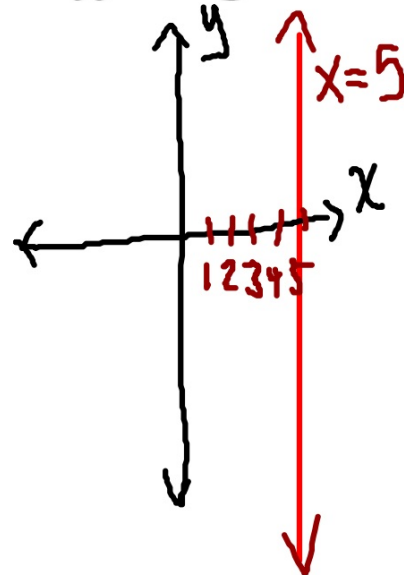
Horizontal Lines

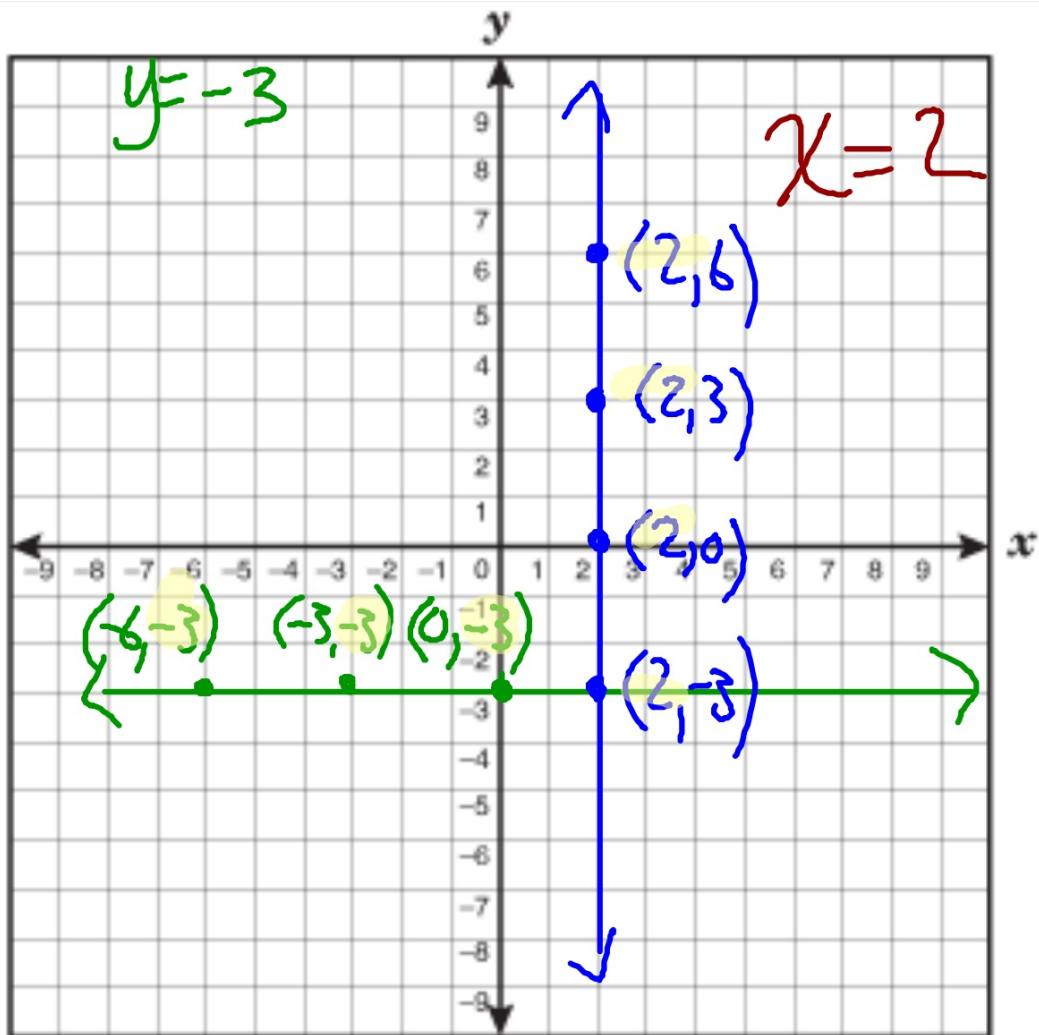
$$y = 2 \quad (y = 0x + 2)$$



Vertical Lines

$$x = 5$$





$$\frac{2x}{-2x} - 4y = 12$$

m =

b =

$$-4y = -2x + 12$$

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

Quiz Review

1) Slope

2) Graphing using slope-intercept form ($y=mx+b$)