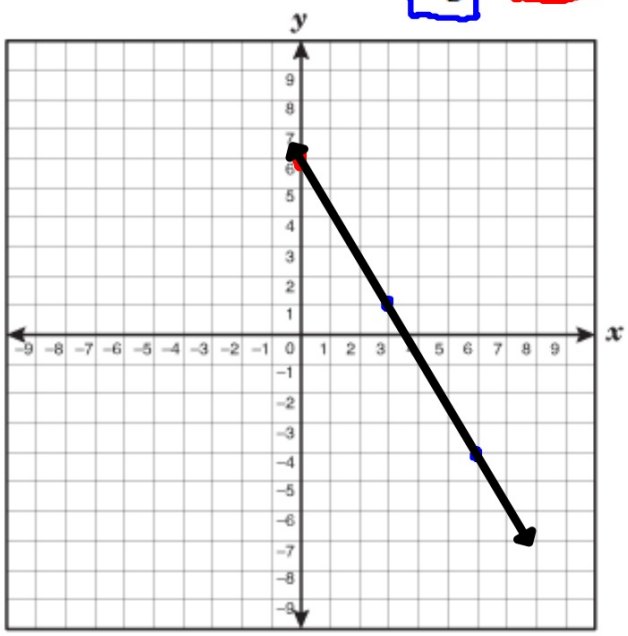
Lesson 5-3A - Standard Form

Algebra - January 10, 2012

1) Find the slope of the line passing through the points (-3, 8) and (-2, -7). $x_1\ y_1$ $x_2\ y_2$ $m = \frac{y_2 - y_1}{x_2 - x_1}$

$m = \frac{-7-8}{-2-(-3)} = \frac{-15}{1}$

2) Graph the line $y = -\frac{5}{3}x + 6$.



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

$3x + y = 5$

$-3x \quad -3x$

$y = -3x + 5$

slope-intercept form

$y = -3x + 5$

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

$20x + 4y = 8$

$-20x \quad -20x$

$\frac{4y}{4} = \frac{-20x + 8}{4}$

$y = -5x + 2$

$2x - 3y = -9$

$-2x \quad -2x$

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

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

$-3x - 4y = 12$

$+3x \quad +3x$

$\frac{-4y}{-4} = \frac{3x + 12}{-4}$

$y = -\frac{3}{4}x - 3$

$-5x + 3y = -7$

$+5x \quad +5x$

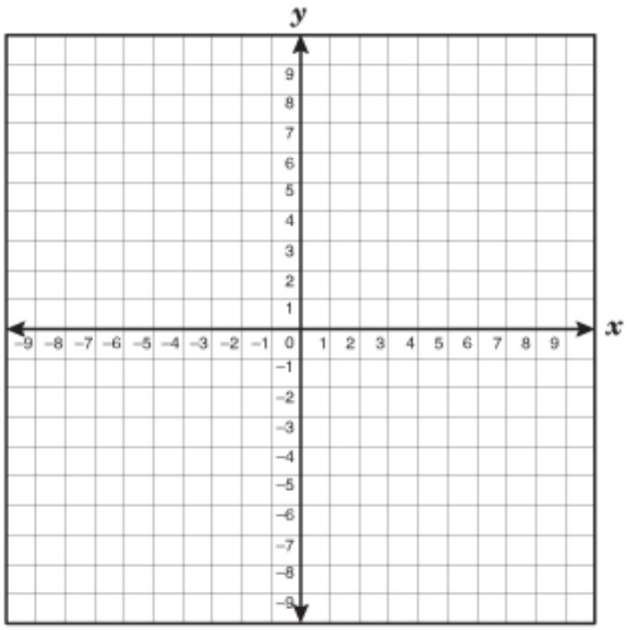
$\frac{3y}{3} = \frac{5x - 7}{3}$

$y = \frac{5}{3}x - \frac{7}{3}$

p.245 #1,2 (slope review)
p.249 #1-3 (transform to y=mx+b)
#10-12 (do what the book says)
#13-17 (transform to y=mx+b and graph)

Vertical Lines

$x = 5$



Horizontal Lines

$y = 2$