Homework review - p. 247

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$y = 5x - 7$ → slope = 5

$5x + y = 7 - 5x$

$-5x$

$y = -5x + 7$ → slope = -5

Not parallel—

Slopes aren't the same

(36)

$6x + y = 24 - 6x$

$-6x$

$y = -6x + 24$ → slope = -6

$y = -6x + -4213.187652410962154$

→ slope = -6

Quiz tomorrow

- over sections 4.1–4.5
- graph coordinate pairs
- graph lines using all 3 methods:
  1. Coordinate pair method
  2. X- and Y- intercept method
  3. slope | intercept method
- You can use your tri-fold graphing organizer

You get credit for this / not this

Coordinate Pair Method:

① Write the equation in $y = mx + b$ form:

$2x + 4y = 8 - 2x$

$-2x$

$\frac{4y}{4} = \frac{-2x + 8}{4}$

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

② Make a table showing 2 values of x & y. Pick an x (from the specified domain) & solve for y

$y = -\frac{1}{2}(2) + 2$

$= -1 + 2$

$= 1$

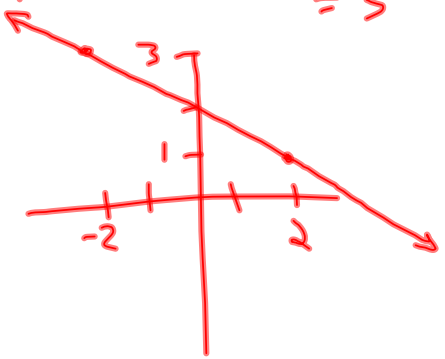
$y = -\frac{1}{2}(-2) + 2$

$= 1 + 2$

$= 3$

x	y
2	1
-2	3

③ Graph the coordinate pairs and draw the line.



② x- and Y- intercept method

① Find the y-intercept (set $x=0$)

$6x + -3y = 12$

$6(0) + \frac{-3y}{-3} = \frac{12}{-3}$

$y = -4$

y-intercept: $(0, -4)$

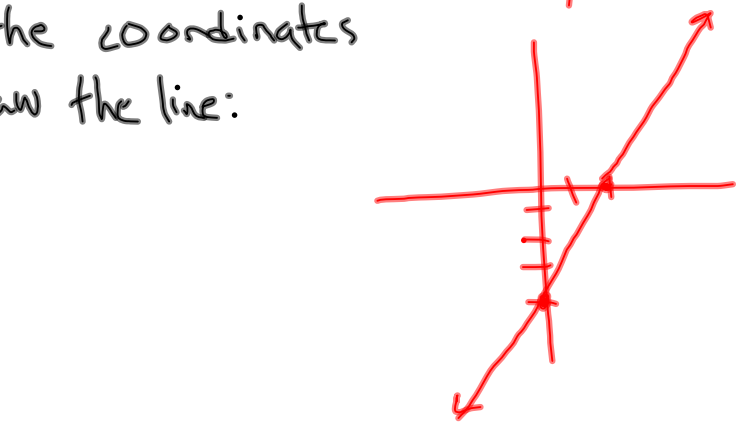
② Find the x-intercept (set $y=0$)

$\frac{6x}{6} + \frac{-3(0)}{6} = \frac{12}{6}$

$x = 2$

x-intercept $(2, 0)$

③ Graph the coordinates and draw the line:



Slope-intercept form:

1. Put the equation in $y=mx+b$ form

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

2. Find the slope (m) and the y-intercept:

$m=\frac{2}{3}$ y-intercept: -1 $(0,-1)$

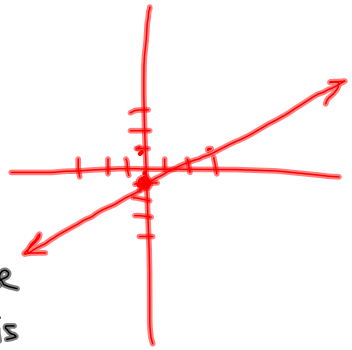
3. Plot the y-intercept

4. Use the slope to find another point.

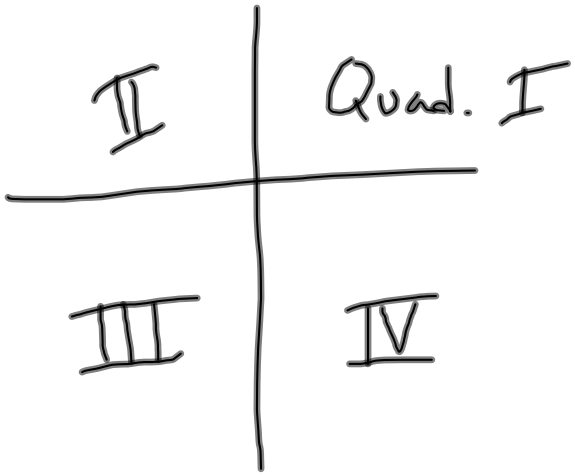
$$m=\frac{\text{rise}}{\text{run}} \longrightarrow$$

$m=\frac{2}{3}=\frac{\text{rise}}{\text{run}}$

- go "rise" away from the y-intercept on the y-axis
- go "run" away the y-intercept on the x-axis



5. Draw the line



Slope:

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$= \frac{\text{rise}}{\text{run}}$$