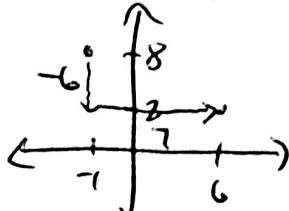
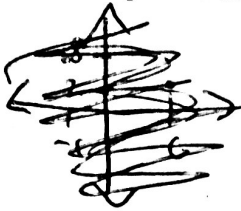


Name: _____
 Date: _____
 Class: _____

Algebra
 Unit 3
 HW 3-2

1) Plot a line that passes through (6, 2) and (-1, 8). What would its slope be?



$$m = \frac{\text{rise}}{\text{run}} = \frac{-6}{7}$$

2) Plot a line that has a y intercept of 7 and a slope of $\frac{1}{2}$. Is (6, 4) on that line?

(0, 7) y → +1
 x → +2

x	y
0	7
2	8
4	9
6	11

No

3) List 4 points that are on the line $y = -\frac{2}{3}x + 8$

(0, 8), ~~(3, 6)~~, (6, 4), (9, 2)
 $-\frac{2}{3} \rightarrow y$
 $3 \rightarrow x$

4) If an equation has an x intercept of -2 and a slope of $\frac{4}{3}$ what would the y intercept be?

(-2, 0) $\frac{4}{3} \rightarrow y$
 $3 \rightarrow x$

(0, 4)

5) What is the x intercept for $y = \frac{2}{3}x + 6$?

x → int $y = 0$

$$0 = \frac{2}{3}x + 6$$

$$-\frac{6}{\frac{2}{3}} = \frac{2}{3}x$$

$-9 = x$

(-9, 0)

6) Which line has a steeper slope? $y = -\frac{2}{5}x + 7$ or $y = \frac{7}{2}x - 6$

$-\frac{2}{5}$

3.5

steeper

7) Are these lines parallel, perpendicular, or do they simply intersect?

$$y = 6 - \frac{2}{3}x \quad \text{vs} \quad y = \frac{6}{9}x - 10$$

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

$$m = \frac{6}{9} = \frac{2}{3}$$

not neg recip

so not \perp

↔
not = so not \parallel

They intersect

8) If you were going to create a line that was perpendicular to the line that has this equation, what slope would you need to use?

$$y = -\frac{4}{5} - \frac{6}{7}x$$

$$-\frac{6}{7} \rightarrow \boxed{\frac{7}{6} = m}$$

9) Graph $x = 5$ and $y = 3$ on the same graph

x must be 5

y must be 3

