

Day 23 – Homework (Slope/Horizontal & Vertical Lines/Intercepts)

Name: _____

Part I: Find the slope between the points and determine what type of line it is (upward, downward, horizontal, or vertical).

1. $(-2, 5)$ and $(4, -8)$

$m = \frac{-8-5}{4-(-2)} = \frac{-13}{6}$ Downward

2. $(-8, 9)$ and $(-8, 6)$

$m = \frac{6-9}{-8-(-8)} = \frac{-3}{0}$ undefined
vertical

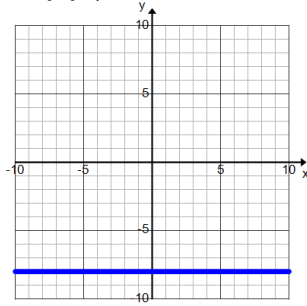
Part II: Find the value of x so the line passing through the points has the given slope.

3. $(2, 5)$ and $(11, y)$; $m = \frac{2}{3}$

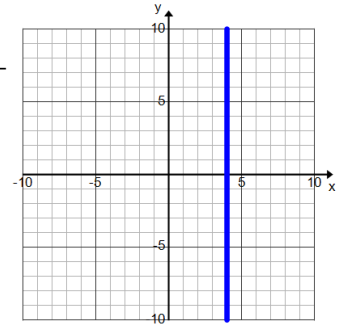
$\frac{2}{3} = \frac{y-5}{11-2} \Rightarrow \frac{2}{3} = \frac{y-5}{9} \Rightarrow 18 = 3(y-5)$
 $18 = 3y - 15$
 $33 = 3y$
 $y = 11$

Part III: Write the equation for the following graphs.

4. Equation: $y = -8$

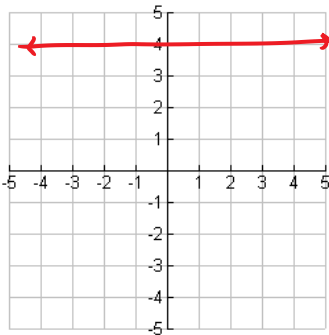


5. Equation: $x = 4$



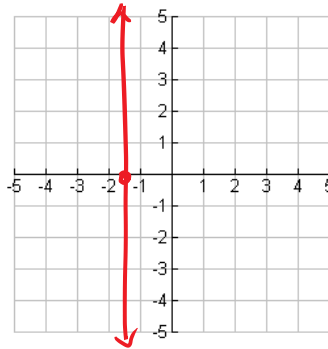
Part IV: Graph the following equations.

6. $y = 4$



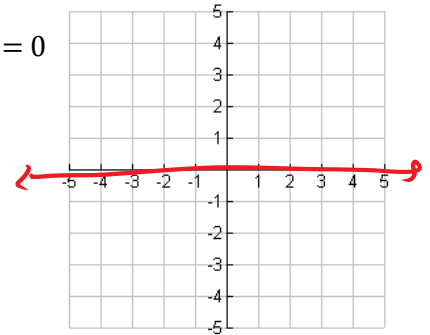
The slope of this graph is _____

7. $x = -1.5$



The slope of this graph is _____

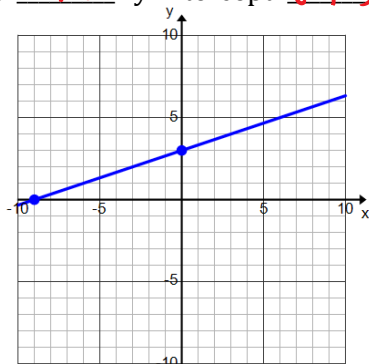
8. $y = 0$



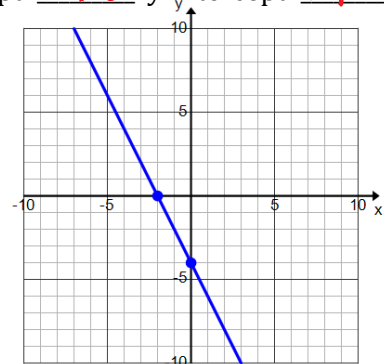
The slope of this graph is _____

Part V: Identify the x- and y-intercepts of the following graph.

9. x - intercept: $(-9, 0)$ y-intercept: $(0, 3)$



10. x - intercept: $(-2, 0)$ y-intercept: $(0, -4)$



Part V: Find the x- and y-intercepts of the line and graph!

11. $3x + 12y = 24$

x-intercept: $3x + 12(0) = 24$

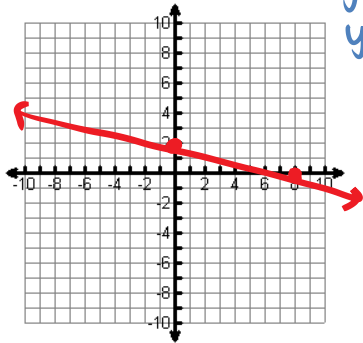
$3x = 24$

$x = 8 \rightarrow (8, 0)$

y-intercept: $3(0) + 12y = 24$

$12y = 24$

$y = 2 \rightarrow (0, 2)$



x	y
8	0
0	2

12. $2x - 8y = -16$

x-intercept: $2x - 8(0) = -16$

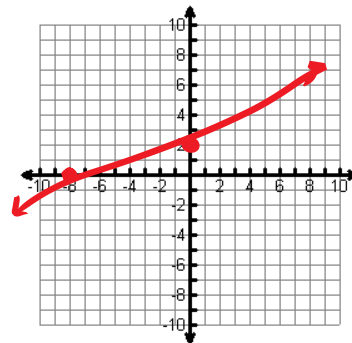
$2x = -16$

$x = -8 \rightarrow (-8, 0)$

y-intercept: $2(0) - 8y = -16$

$-8y = -16$

$y = 2 \rightarrow (0, 2)$



x	y
-8	0
0	2

Part VI: Reflection

❖ What is the EASIEST part/topic of this homework for you? _____

❖ What is the most challenging part/topic of this homework for you? _____

❖ I want to earn a _____ on the QUEST.

❖ In order to earn this grade on the quiz, I am going to...
