Date:

TSW write an equation of a line.

QRQ1:

Which equation is equivalent to y = 3/4 x - 2 ?

A $4y = -3x - 8$ → $y = -\frac{3}{4}$

B $4y = 3x - 8$ → $y = \frac{3}{4}x - 2$

C $-4y = 3x - 8$

D $-4y = -3x - 8$

Which equation is equivalen y = -5x + 3

A $2y = 10x - 6$ → $y = 5x$

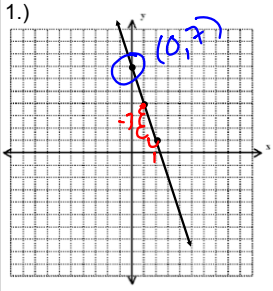
B $2y = 10x + 6$ → $y = 5x$

C $-2y = 10x + 6$ → $y = -5x - 3$

D $-2y = 10x - 6$ → $y = -5x + 3$

Answers to After Test3 Assignment:

1.)



a.) What is the y-intercept of this graph? b = 7

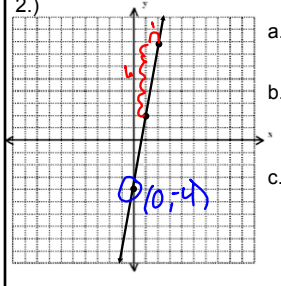
b.) What is the slope of this graph? rise / run m = $\frac{-3}{1}$

c.) What is the equation of this line?

$y = mx + b$

$y = -3x + 7$

2.)



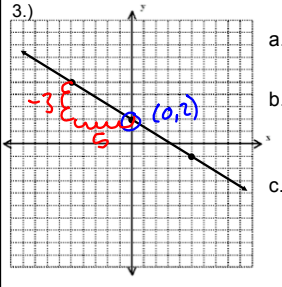
a.) What is the y-intercept of this graph? b = -4

b.) What is the slope of this graph? rise / run m = $\frac{6}{1}$

c.) What is the equation of this line?

$y = 6x - 4$

3.)



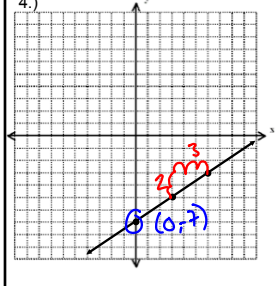
a.) What is the y-intercept of this graph? b = 2

b.) What is the slope of this graph? rise / run m = $\frac{-3}{5}$

c.) What is the equation of this line?

$y = \frac{-3}{5}x + 2$

4.)



a.) What is the y-intercept of this graph? b = -7

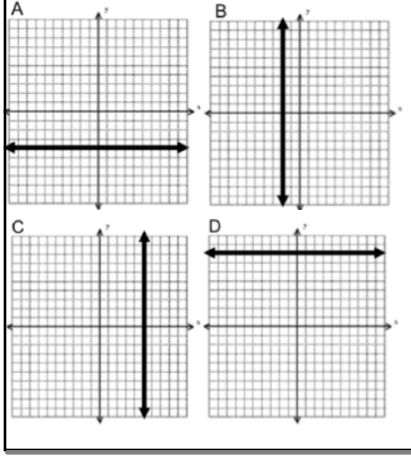
b.) What is the slope of this graph? rise / run m = $\frac{2}{3}$

c.) What is the equation of this line?

$y = \frac{2}{3}x - 7$

Match each Equation with the correct Graph. Refer to you Graphing Notes!

D 5.) y = 8 B 6.) x = -2 A 7.) y = -4 C 8.) x = 5



9. $(-3,-5)$
$x \quad y$

a) $y = 4x+7$

$-5 \stackrel{?}{=} 4(-3)+7$

$-5 \stackrel{?}{=} -12+7$

$-5 = -5$ ✓

yes

b) $2x+6y=36$

$2(-3)+6(-5) \stackrel{?}{=} 36$

$-6-30 \stackrel{?}{=} 36$

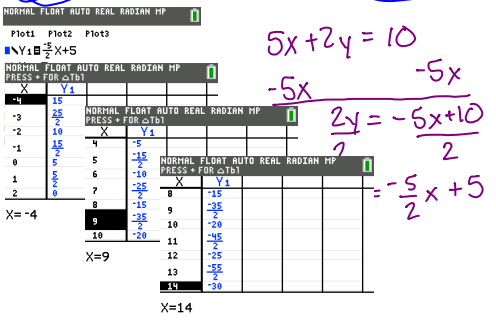
$-36 \neq 36$

No

10.) Graph this equation $5x+2y=10$ on your calculator. Press 2nd Graph. Circle all of the following points that are on this line. (Hint: If the points are in the table, they are on the line)

(-4, 15) (-3, 12) (-1, 7) (0, 5)

(-2, 10) (0, 2) (4, -5) (12, -25)



$5x+2y=10$

$-5x \quad -5x$

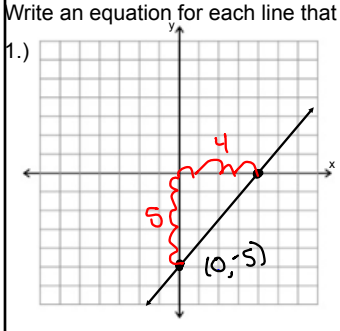
$\frac{2y}{2} = \frac{-5x+10}{2}$

$y = -\frac{5}{2}x+5$

Notes Handout:

Write an equation for each line that is graphed.

1.)

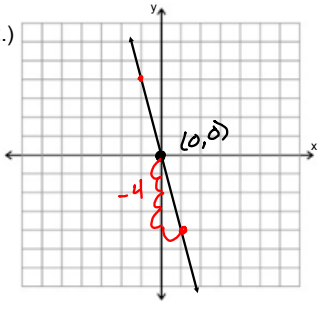


m = $\frac{5}{4}$

b = -5

Equation of Line: $y = \frac{5}{4}x - 5$

2.)

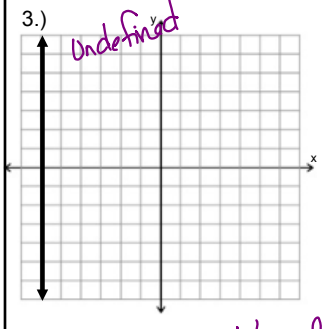


m = $\frac{-4}{1}$

b = 0

Equation of Line: $y = -4x$

3.)



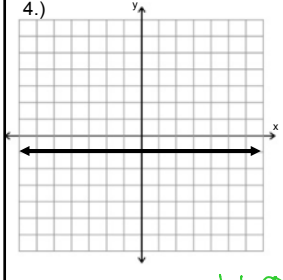
m = Undefined

b = DNE

Equation of Line: $x = -6$

Vertical
Undefined
$x = \#$

4.)



m = $\emptyset$

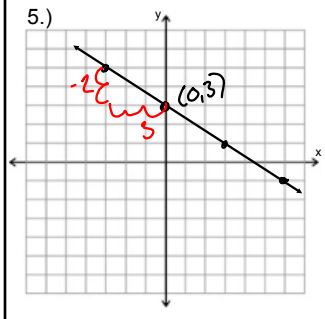
b = -1

Equation of Line: $y = -1$

H O $y = \#$

Horizontal Slope

5.)



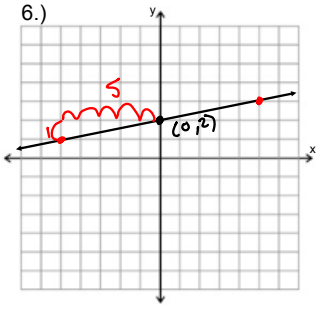
m = $-\frac{2}{3}$

b = 3

Equation of Line:

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

6.)



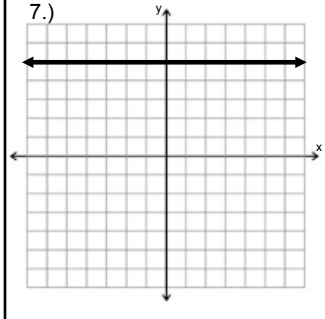
m = $\frac{1}{5}$

b = 2

Equation of Line:

$y = \frac{1}{5}x + 2$

7.)



m = $\emptyset$

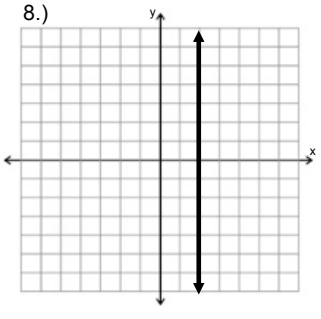
b = 5

Equation of Line:

$y = 5$

HOY

8.)



m = undefined

b = DNE

Equation of Line:

$x = 2$

V

U

X

How can you find the x-intercepts and y-intercepts of a graph without having the graph? Or without a graphing calculator?

9.) $8x + 6y = 24$

To find the x-intercept let y = 0

$8x + 6(0) = 24$

$\frac{8x}{8} = \frac{24}{8}$

$x = 3$

To find the y-intercept let x = 0

$8(0) + 6y = 24$

$\frac{6y}{6} = \frac{24}{6}$

$y = 4$

x-intercept (3,0)

y-intercept (0,4)

10.) $7x - 3y = 21$

To find the x-intercept let y = 0

$7x - 3(0) = 21$

$\frac{7x}{7} = \frac{21}{7}$

$x = 3$

To find the y-intercept let x = 0

$7(0) - 3y = 21$

$\frac{-3y}{-3} = \frac{21}{-3}$

$y = -7$

x-intercept (3,0)

y-intercept (0,-7)

11.) $-4x + 5y = 20$

To find the x-intercept let y = 0

$\frac{-4x}{-4} = \frac{20}{-4}$

$x = -5$

To find the y-intercept let x = 0

$\frac{5y}{5} = \frac{20}{5}$

$y = 4$

x-intercept = (-5,0)

y-intercept = (0,4)

12.) $-9x - 2y = 36$

To find the x-intercept let y = 0

$\frac{-9x}{-9} = \frac{36}{-9}$

$x = -4$

To find the y-intercept let x = 0

$\frac{-2y}{-2} = \frac{36}{-2}$

$y = -18$

x-intercept = (-4,0)

y-intercept = (0,-18)

October 10, 2017

Now Complete:

Handout