Warm Up 10-30-2018

. Find the slope:

a) (-8, 4) & (-2, -6)

b) 2x - 3y = 12

c)

x	y
-3	5
-2	7
0	11

a

$m = \frac{-6-4}{-2+8} = \frac{-10}{6}$

$\boxed{\frac{-5}{3}}$

b

$2x - 3y = 12$

$-2x \quad -2x$

$\frac{-3y}{-3} = \frac{-2x}{-3} + \frac{12}{-3}$

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

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

1. Create a table using $f(x) = 2x^2 - 3$ for the domain of {-5, -3, 0, 1, 4}

$f(-5) = 2(-5)^2 - 3 = 47$

$f(-3) = 2(-3)^2 - 3 = 15$

$f(0) = 2(0)^2 - 3 = -3$

$f(1) = 2(1)^2 - 3 = -1$

$f(4) = 2(4)^2 - 3 = 29$

x	y
-5	47
-3	15
0	-3
1	-1
4	29

1 c

x	y
-3	5
-2	7
0	11

+1, +2

+2, +4

$\frac{2}{1} \quad \frac{4}{2}$

$\boxed{m = 2}$

H

Horizontal Line

O

Slope = zero

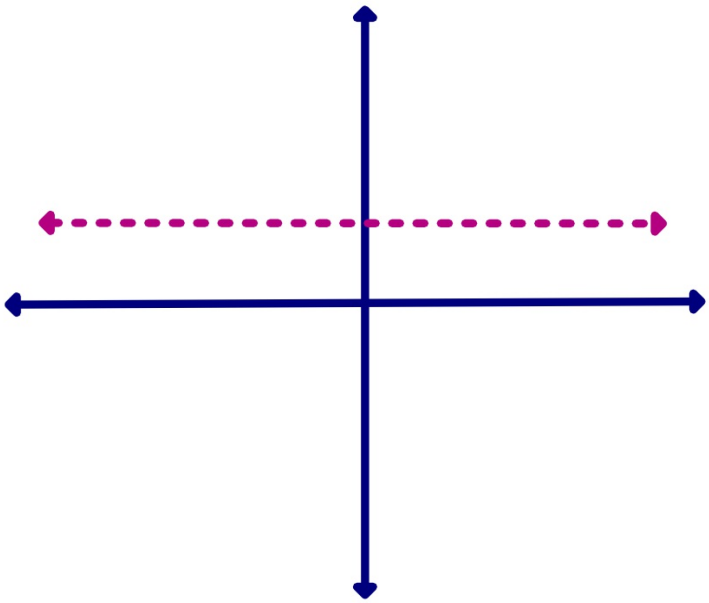
Y

Equation: y = #

V

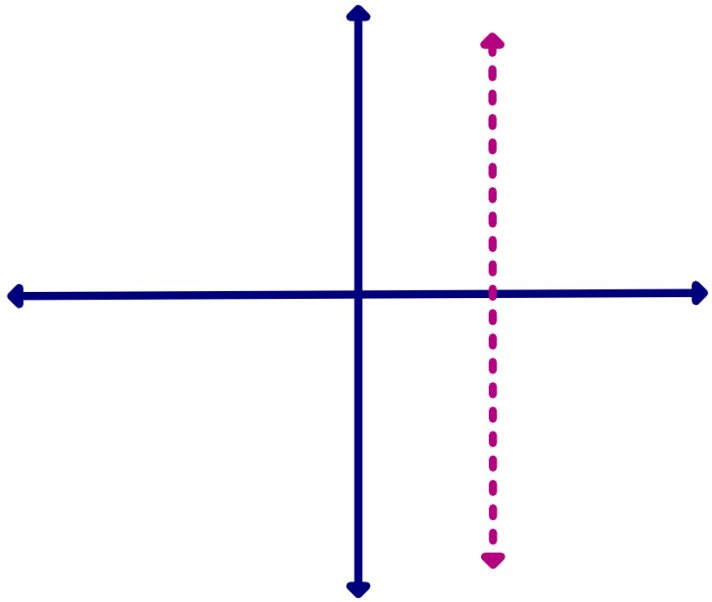
U

X



H O Y

V Vertical Line



U Slope= Undefined

X Equation: x= #

Slope- Intercept Form

$$y = mx + b$$

m= slope

b= y-intercept

*where the equation crosses the y-axis

Given a value for m and for b....write an equation

$y=mx+b$

Example 1:

m= -4
b= 5

$y=-4x+5$

Given a value for m and for b....write an equation

You Try:

m= 10

b= -3

$y=10x-3$

Given a value for m and for b....write an equation

Example 3:

m= 3/4
b= -9

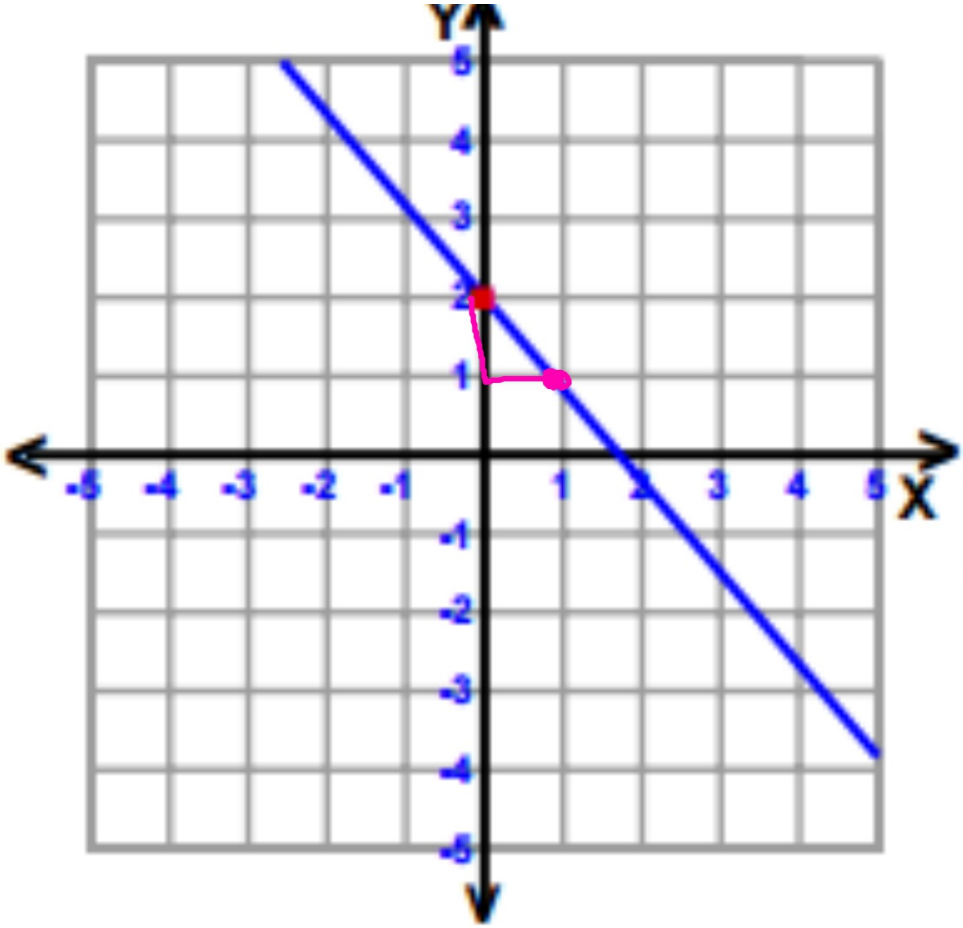
$y = \frac{3}{4}x - 9$

Given a value for m and for b....write an equation

You Try:

m= 5/4
b= 7

$y=\frac{5}{4}x+7$

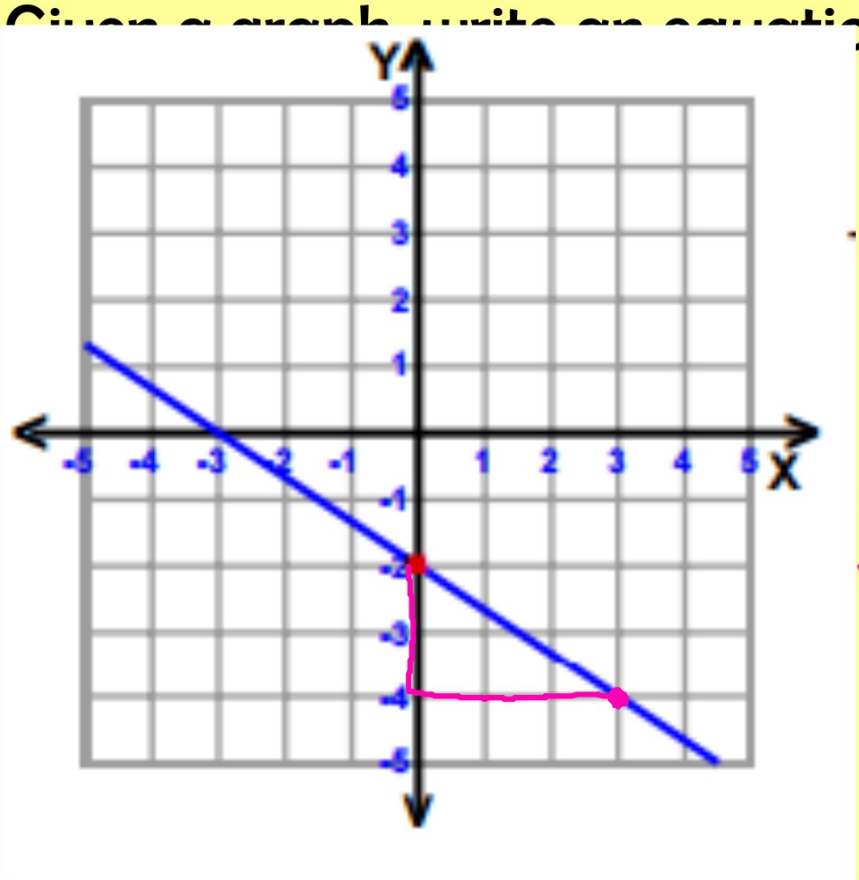


$m = \frac{-1}{1} = -1$

$b = 2$

$\boxed{y = -x + 2}$

Given a graph, write an equation in

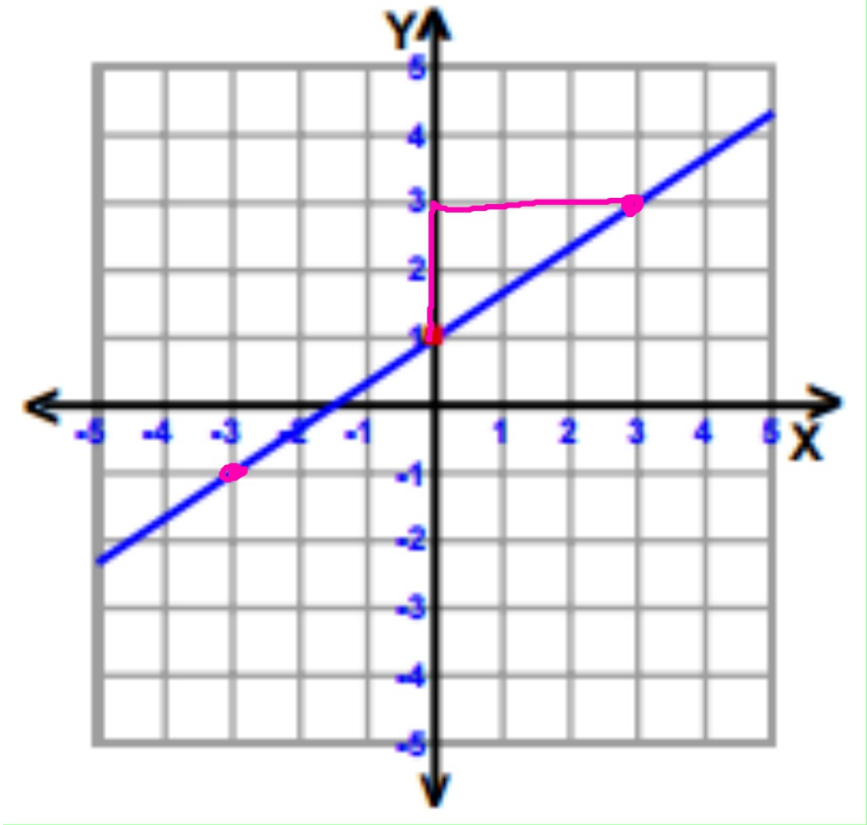


$m = -\frac{2}{3}$

$b = -2$

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

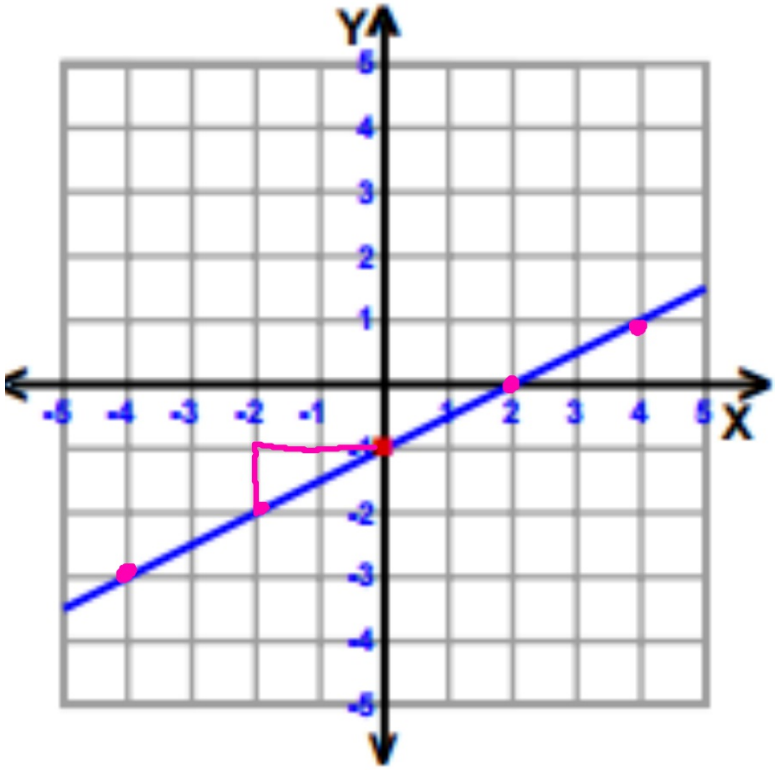
Given a graph, write an equation in



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

$b = 1$

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



ation in

y-intercept ALWAYS has x=0

$m = \frac{1}{2}$ $b = -1$

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

$(0, y)$

form

+1 +1 +1 +1

x	0	1	2	3	4
y	5	3	1	−1	−3

−2 −2 −2 −2

m=-2
b=5

$y=-2x+5$

+1 +1 +1 +1

x	0	1	2	3	4
y	0	2	4	6	8

+2 +2 +2 +2

$m=2$

$b=0$

$y=2x$

Given a table, write an equation in slope-intercept form

Example 3:

		+1	+1	+1	+1	
0	1					
		x	2	3	4	5	6
−5	−8	y	−11	−14	−17	−20	−23
−3	−3		−3	−3	−3	−3	

$m = -3 \quad b = -5$

$y = -3x - 5$

Given a table, write an equation in slope-intercept form

You Try:

x	1	2	3	4	5
y	1	3	5	7	9

+1 +1 +1 +1

+2 +2 +2 +2

0

-1

+2

$m=2 \quad b=-1$

$y=2x-1$

NAME

10/30/18

Standard to Slope-Intercept Form

Scav. Hunt

① $3x + 4y = 8$

$-3x \qquad -3x$

$$\frac{4y}{4} = \frac{-3x}{4} + \frac{8}{4}$$

$$y = -\frac{3}{4}x + 2$$