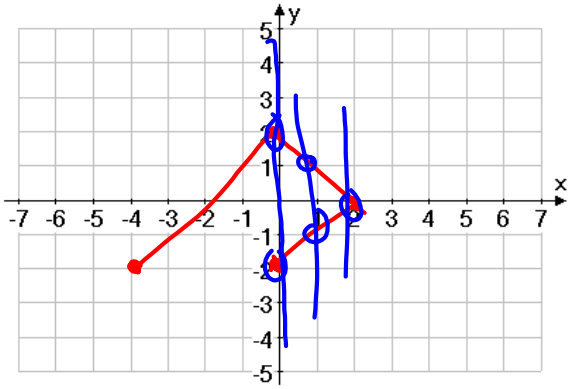
Do Now:

Given the following relation, Graph and Determine if it is a function:

{(-4,-2), (0,2), (2,0), (0,-2) }



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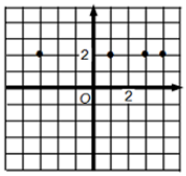
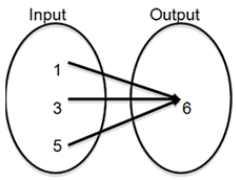
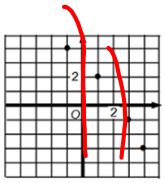
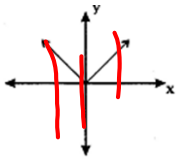
Function

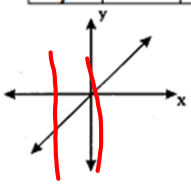






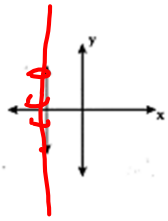


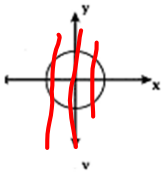
x	−1	2	5
y	−4	8	20

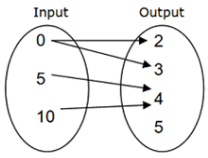


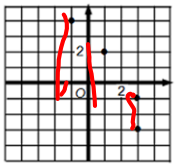
{-1, 5), (2, 5), (3, 5) (8, 5)}

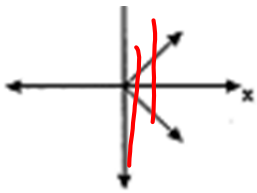
Not a Function











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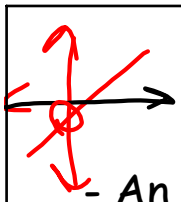


Linear Equations

- An equation with 2 variables that gives a straight line when graphed on a coordinate plane
- Often written in **slope-intercept** form

Slope-Intercept Form: $y = mx + b$

slope

y-intercept (Crosses y-axis)

Oct 12-10:07 AM

When Graphing Linear Equations from a Table:

1) Set up table (x-values, equation, and y-values)

x	equ	y

2) Pick 5 values for x

(-2, -1, 0, 1, 2 work best if there are **no fractions**)

3) Substitute in for x and solve for y

4) Plot your points

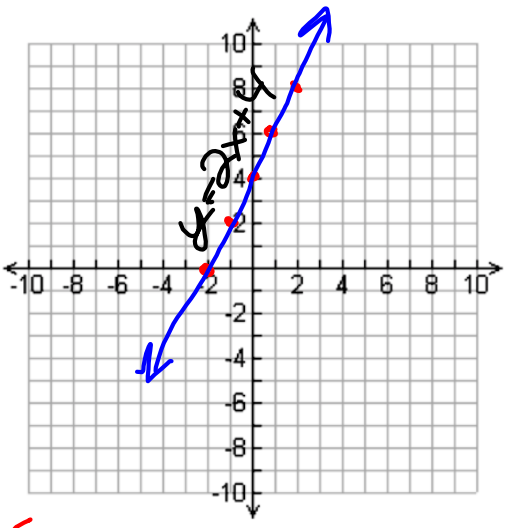
5) Create a **straight** line connecting all points with arrows

6) Label line with original equation

Oct 12-10:13 AM

1) y = 2x + 4

x	y=2x+4	y
-2	y=2(-2)+4	0
-1	y=2(-1)+4	2
0	y=2(0)+4	4
1	y=2(1)+4	6
2	y=2(2)+4	8



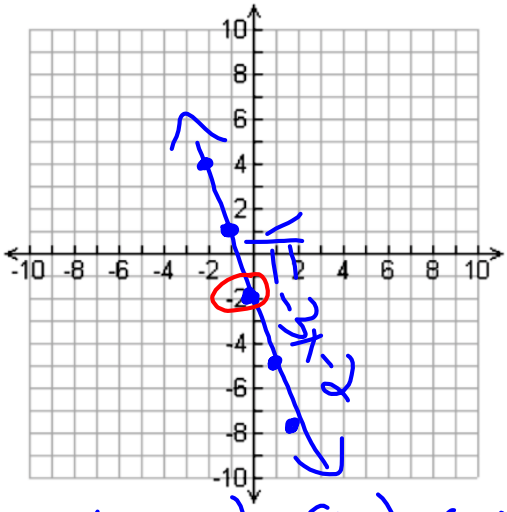
{(-2,0),(-1,2),(0,4),(1,6),(2,8)}

Oct 12-10:21 AM

y=mx+b

2) y = -3x - 2

x	y=-3x-2	y
-2	y=-3(-2)-2	4
-1	y=-3(-1)-2	1
0	y=-3(0)-2	-2
1	y=-3(1)-2	-5
2	y=-3(2)-2	-8

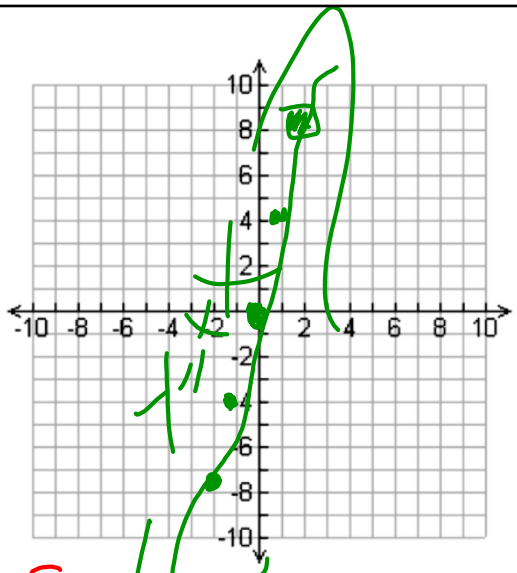


{(-2,4),(-1,1),(0,2),(1,-5),(2,-8)}

Oct 12-10:23 AM

3) $y = 4x + 0$

x	y=4x	y
-2	y=4(-2)	-8
-1	y=4(-1)	-4
0	y=4(0)	0
1	y=4(1)	4
2	y=4(2)	8



{(-2,-8), (-1,-4), (0,0), (1,4), (2,8)}

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