Warm Up

1. Evaluate each expression for $x = 2$**.**

a. $2x + 2$ $= 6$

b. -x - 5 $= 7$

f of x

2. Use $f(x) = 3x - 2$ **to find the following:**

$f(-3) =$ $3(-3)-2$
$-9-2 = -11$

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

$f(2) =$ 4

Determine whether the relation is a function.

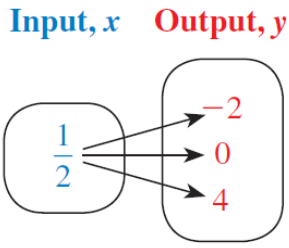
1. (−5, 0), (0, 0), (5, 0), (5, 10)

No!

2.

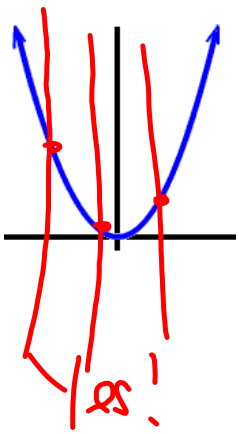
Input, x	Output, y
2	2.6
4	5.2
6	7.8

3.



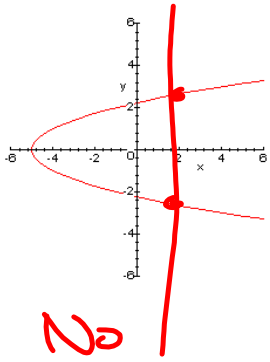
No :(

4.



Yes!

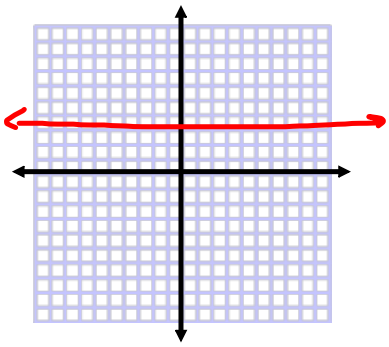
5.



No

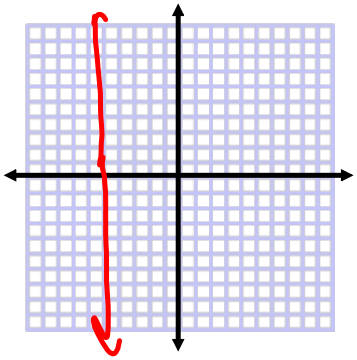
HOY

$y = 3$



VUX

$x = -5$



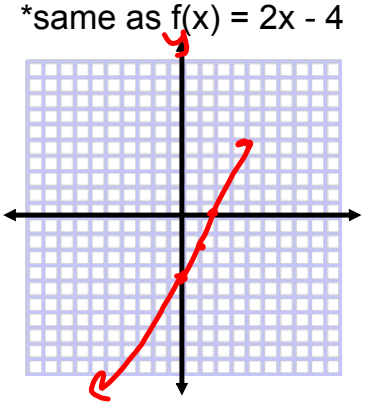
$y = mx + b$

m = slope "$\frac{\text{rise}}{\text{run}}$"

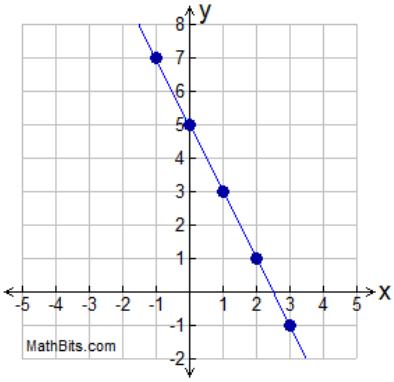
b = y-int

Graph y = 2x - 4

*same as f(x) = 2x - 4



Write the equation of the line



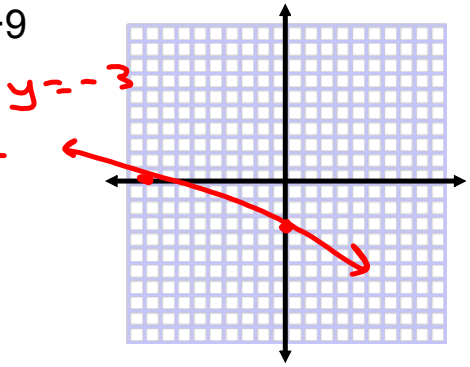
$y = -2x + 5$

Standard Form Ax + By = C

Use intercepts to graph the linear equation.

4. $x + 3y = -9$

x	y
-9	0
0	-3



$$\cancel{x} + 3y = -9$$
$$-\cancel{x} \qquad -x$$

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

$$y = -\frac{1}{3}x - 3$$

$$y - y_1 = m(x - x_1)$$

Write an equation in *point-slope form* of the line that passes through the given point and has the given slope, then reduce to *slope-intercept form*

x_1 y_1

1. $(-5, -7)$; $m = -3$

$y + 7 = -3(x + 5)$

$y + 7 = -3x - 15$

$-7 \qquad -7$

$y = -3x - 22$

Recursive

$$a_n = a_{n-1} + d$$

Write the recursive rule for the arithmetic sequence.

$a_n = a_{n-1} + 3$

$a_1 = 5$

5,8,11,14,...

Explicit

$$a_n = a_1 + d(n-1)$$

Write the eplicit rule for the arithmetic sequence and find the 39th term

$a_n = 5 + 3(n-1)$

$= 5 + 3n - 3$

$a_n = 3n + 2$

$a_{39} = 3(39) + 2 = 119$

Work on:

EoL Review Unit 3 and

EoL Review Unit 4