

UNIT 3. DAY 3: MORE ON FUNCTIONS HOMEWORK

(#1-3) Given the following functions find $t(-3)$, $f(-2)$, and $r(-4)$.

1. $t(x) = 4x - 2$

$$t(-3) = 4(-3) - 2$$

$$t(-3) = -12 - 2$$

$$t(-3) = -14$$

2. $f(x) = x^2 - 5$

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

$$f(-2) = 4 - 5$$

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

3. $r(x) = |6x - 2|$

$$r(-4) = |6(-4) - 2|$$

$$= |-24 - 2|$$

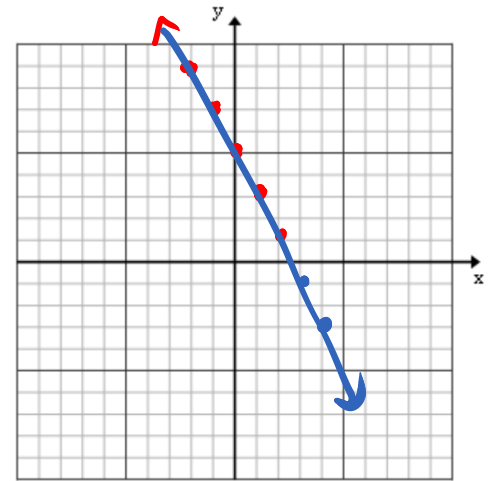
$$= |-26|$$

$$r(-4) = 26$$

4. Graph the function:

$$f(x) = -2x + 5$$

x	f(x)
-2	9
-1	7
0	5
1	3
2	1



$$f(-2) = -2(-2) + 5 = 9$$

$$f(-1) = -2(-1) + 5 = 7$$

$$f(0) = -2(0) + 5 = 5$$

$$f(1) = -2(1) + 5 = 3$$

$$f(2) = -2(2) + 5 = 1$$

Think about it: On your graph above, determine:

a. At $x = 4$, $y = -3$

b. At $x = 99$, $y = -193$

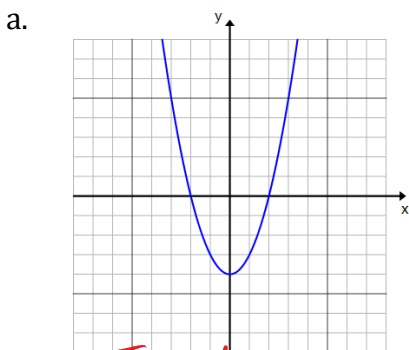
c. $f(x) = 9$ when $x = -2$

plug into equation and solve
 $9 = -2x + 5$
 $4 = -2x$
 $-2 = x$

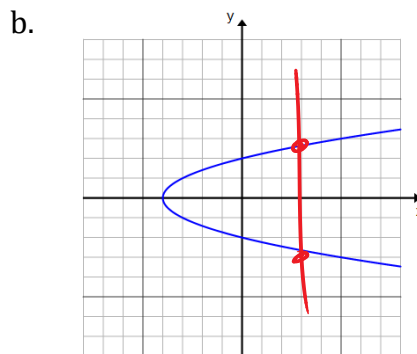
d. Is there any value of x that would have more than one y value? **no**

e. Why is this a function? **Because each x has exactly one y .**

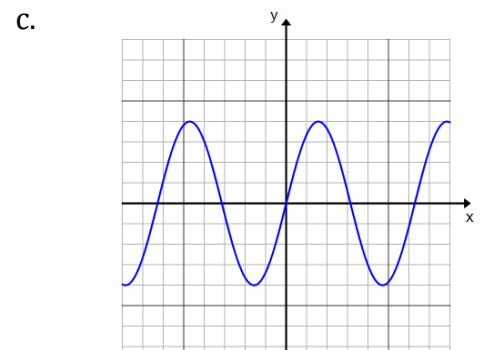
5. Which of the following graphs are functions? Use the Vertical Line Test!



Function



not a function



function