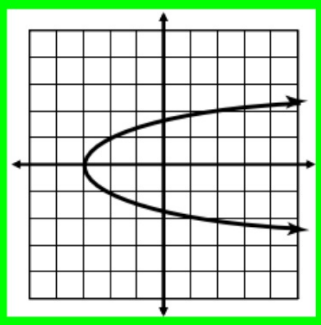
Function RECAP

True or False

- A relation is a function if the y-values do not repeat.
- {(-4, -1), (-3, -1), (-2, -3), (-1,0), (-3, 2)} is a function.
- The vertical line test determines whether or not a graph represents a function
- The graph below is a function.



Function Notation

Equations can be written in a form called function notation.
We use this as a quick way to evaluate functions for a given input.

Example: $y = 2x - 8$ ➡ $f(x) = 2x - 8$

This is read as "f of x"

1 $f(x) = x + 7$

a. $f(5) = 5 + 7 = 12$

b. $f(-1) = -1 + 7 = 6$

c. $f(-3) = -3 + 7 = 4$

2 $g(x) = 3x - 8$

a. $g(1) = 3(1) - 8$

b. $g(-3) = 3(-3) - 8$

c. $g(0)$ $3(0) - 8$

a) -5 c) -8

b) -17

3 $h(x) = \frac{2}{3}x - 1$

a. $h(-3)$

b. $h(0)$

c. $h(9)$

4 $f(x) = x^2 - x$

a. $f(-4)$

b. $f(-1)$

c. $f(7)$

5 $h(x) = 3x^2 + 7$

a. $h(-4)$

b. $h(-2)$

c. $h(0)$

6 $f(x) = -x^2 + 6x - 4$

a. $f(-3)$

b. $f(-1)$

c. $f(5) = 1$

a) $-\boxed{(-3)^2} + 6(-3) - 4$

$-9 - 18 - 4$

$-27 - 4$

-31

b) $-\boxed{(-1)^2} + 6(-1) - 4$

$-1 - 6 - 4$

-11