

Functions!

A **function** is a relation where each _____ produces exactly ONE _____

Function Notation

Function notation is a way to _____ a function that is defined by an equation

$f(x)$

"the value of the function at x "

"____ of ____"

You can use **any** _____ to represent a function: $g(x)$, $h(x)$, _____

The equation $y = 2x + 1$ becomes $f(x) = 2x + 1$

Using Function Notation

If $f(x) = 2x + 1$,

find the value of $f(x)$ when x is 3

Substitute in ____ for ____ to solve for y

$$f(x) = 2x + 1$$

$$f(_) = 2(_) + 1$$

$$f(3) = \underline{\hspace{2cm}}$$

$$f(3) = \underline{\hspace{2cm}}$$

Point: (__ , __)

If $f(x) = 2x + 1$,

find the value of x where $f(x) = 11$

Substitute in ____ for ____ to solve for x

$$f(x) = 2x + 1$$

$$_ = 2x + 1$$

$$_ = \underline{\hspace{2cm}}$$

$$_ = \underline{\hspace{2cm}}$$

Point: (__ , __)

EXAMPLE: $g(x) = 3x - 4$

Find the value of $g(6)$

Substitute in ____ for ____ to solve for y

$$g(x) = 3x - 4$$

$$g(_) = 3(_) - 4$$

$$g(6) = \underline{\hspace{2cm}}$$

$$g(6) = \underline{\hspace{2cm}}$$

Point: (__ , __)

Find x if $g(x) = 17$

Substitute in ____ for ____ to solve for x

$$g(x) = 3x - 4$$

$$_ = 3x - 4$$

$$_ = \underline{\hspace{2cm}}$$

$$_ = \underline{\hspace{2cm}}$$

Point: (__ , __)