

Functions

A function rule shows how your variables are related.

We commonly call a function rule an equation.

To determine what a function rule is, ask yourself this question:

"What am I doing to x to get y ?"

The x -variable is called the independent variable.

This is because its value is not dependent on anything.

The y -variable is called the dependent variable.

This is because we calculate its value based on x .

Examples:

Write a function rule for each table.

1.

x	$f(x)$
1	5
2	6
3	7
4	8

2.

x	$f(x)$
1	1
3	9
6	36
9	81

Rule: $y = x + 4$ or
 $f(x) = x + 4$

Rule: $y = x^2$ or
 $f(x) = x^2$

If we know what the equation is, we can use it to determine values for both x and/or y .

Just plug in the given x -value and simplify to solve for the y -value.

Examples:

$$y = -2x + 5$$

x	y
5	-5
-1	7
2	1
0	5

$$y = -\frac{2}{3}x + 4$$

x	y
3	2
-3	6
6	0
0	4

