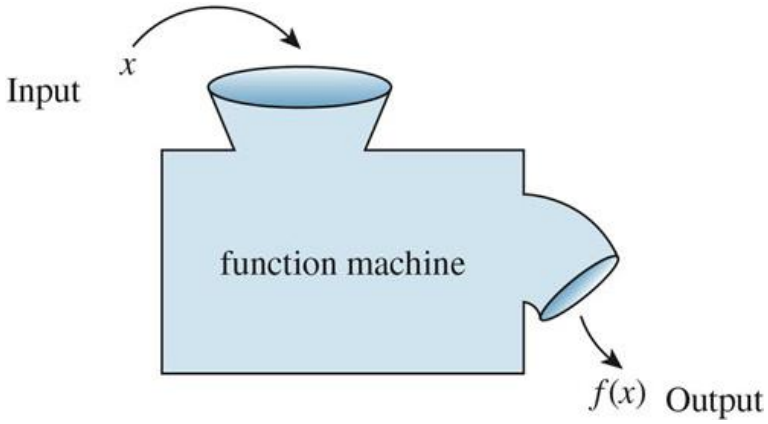
Function Rules

Remember that a function is a relation that assigns one output to each input. A function rule is the "recipe" for how to manipulate x to get y. Think of x as your input value, you put the value into a function machine and the "rule" happens. What you get out is y, your output value.



**Note: Sometimes y is referred to as a function of x or f(x).*

Example 1: f(x) = 2x+3 or y = 2x +3

If x = 2, then f(2) = 2(2) + 3

f(2) = 7 or y = 7

Example 2: Rule y = -4x

What would the input be if the output is -12? If the output is 12, that means y=12. Plug it in and solve for x.

$$\frac{12}{-4} = \frac{-4x}{-4}$$

$$-3 = x$$

So, if the output was 12, the input (x) was -3.