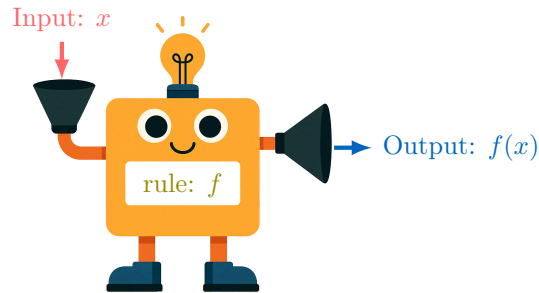


FUNCTIONS

A DEFINITIONS

Definition Function

From an input value x , a **function** f produces an output value $f(x)$.
 $f(x)$ is read as " f of x ".



Ex: For $f(x) = 2x - 1$ (the function that doubles the input and subtracts 1), find $f(5)$.

Answer: $f(5) = 2 \times (5) - 1$ (substituting x by (5))
 $= 9$

B TABLES OF VALUES

Definition Table of Values

The **table of values** for a function f provides a listing of pairs $(x, f(x))$, where x is an input value and $f(x)$ is the corresponding output value produced by the function f .

Ex: For $f(x) = x^2$, complete the following table:

x	-2	-1	0	1	2
$f(x)$					

Answer:

- $f(-2) = (-2)^2$ (substituting x by (-2))
 $= 4$
- $f(-1) = (-1)^2$ (substituting x by (-1))
 $= 1$
- $f(0) = (0)^2$ (substituting x by (0))
 $= 0$
- $f(1) = (1)^2$ (substituting x by (1))
 $= 1$
- $f(2) = (2)^2$ (substituting x by (2))
 $= 4$

So the completed table is:

x	-2	-1	0	1	2
$f(x)$	4	1	0	1	4