

FUNCTIONS

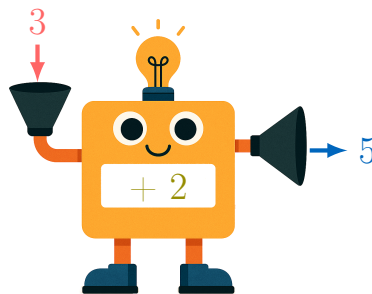
A DEFINITION

Definition Function

A **function** is a rule that assigns to each input exactly one output. You can think of a function as a machine: for every input you give it, the machine produces an output according to a specific rule.

Ex:

- The rule is: add 2.
- The input is: 3.
- The output is: $3+2=5$.

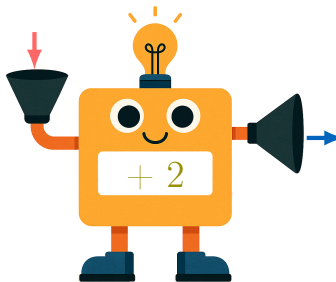


B TABLE OF VALUES

Definition Table of values

A **table of values** is a table that shows several pairs of input and output values for a function.

Ex:



Here is a table of values for the rule "add 2":

Input	2	3	4
Output	4	5	6

C GRAPHS

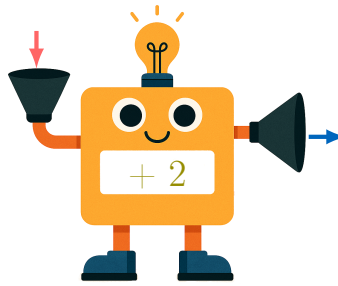
Definition Graph

A **graph** of a relation is the set of points (Input, Output) in a coordinate plane.

Definition Line Graph

A **line graph** of a relation is the set of points (Input, Output) connected by straight line segments.

Ex:

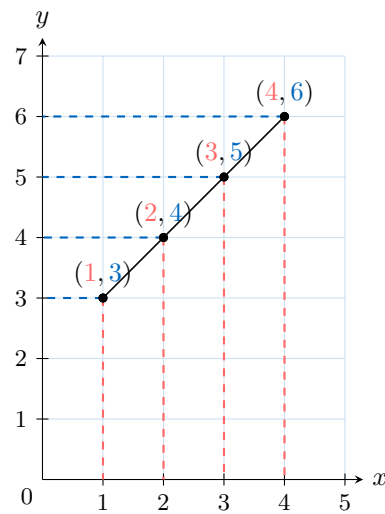


Plot the line graph for the rule "add 2" using the table of values below:

Input	1	2	3	4
Output	3	4	5	6

Answer:

- Plot the points $(1, 3)$, $(2, 4)$, $(3, 5)$, $(4, 6)$ on a graph.



- Connect the points in order with straight line segments to form the line graph.

