What is Algorithm?

Algorithm is step-by-step set of instructions or a process designed to solve some problems or perform some operations.

In a simple word it's a key concept in computer science or mathematics to provide some structured approach to do some decision making or task execution.
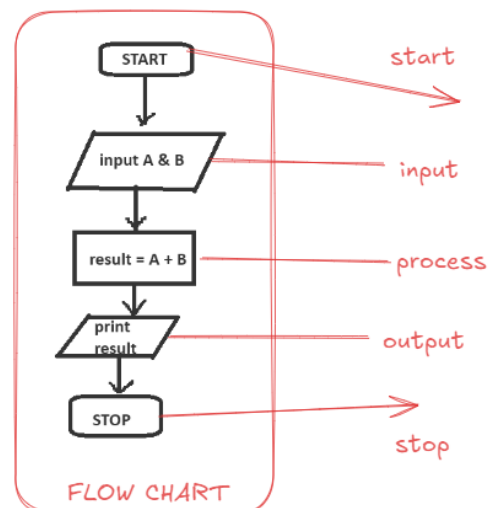
Key Concepts of Algorithm

1. Input: in any algorithm you can pass 0 or more inputs for process.

2. Output: our algorithm can process the given input and generate some result from the same which considered as an output.

3. Finiteness: an algorithm must have a finite number of steps. It should terminate after a certain number of steps.

4. Definiteness: each step of algorithm must be very clear and unambiguous.

5. Effectiveness: steps which you have written must be simple enough to execute by computer or human.

algorithm for adding 2 numbers

Problem: Add 2 numbers, A and B

steps:
1. Take two inputs, A and B.
2. Add A and B
3. print the result.


```
START
input A & B
result = A + B
print result
STOP
```

FLOW CHART

start
input
process
output
stop

Algorithm to calculate Factorial of n numbers

1. input a number n.

2. initialize a variable fact = 1

3. for each number i from 1 to n, multiply fact by i

4. print fact

start

input n

initialize fact=1

n>1 ?

yes

fact = fact * n;
n--;

NO

print Factorial

STOP