Nov 07 22

Flowcharts

↳ Diagram to represent solution of problems.

* Components →

① Start/Exit — Start — oval shape

② Input/Output — Read N, Print "Hi" — parallelogram shape

③ Process — name = "Shradha" — rectangle shape

④ Decision — is marks > 33 — yes → Print "Pass" — No → Print "Fail" — to check decision

⑤ Arrows ↓

In point ④ Print "Pass" & Print "Fail" are connected with decision block so they are called branches.

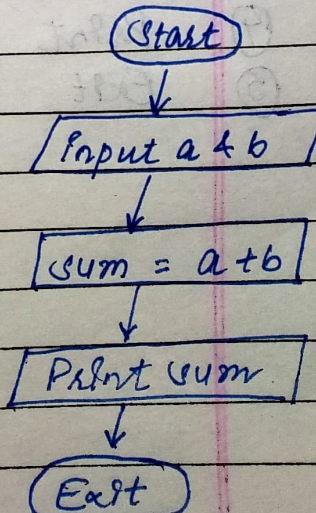
Ques: Sum of two numbers.

Given,

Input → first number, a
second number, b

Output → sum of a & b

Flowchart →



~~Pseudo~~

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Pseudocode of above problem

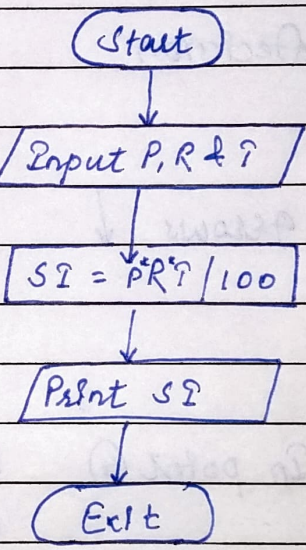
1 Start
2 Input a & b
3 sum of a & b or Calculate sum = a+b
4 print sum
5 Exit

} English में लिखते हैं

Ques 2 Calculate Simple Interest

Given,
principal, P
Rate, R
Time, T

Flow Chart



Output
$SI = \frac{PRT}{100}$

Pseudocode

1. Start
2. Input Principal (P), Rate (R) & Time (T)
3. Calculate SI = P x R x T / 100
4. Print SI
5. Exit

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Ques 3 Find max of 3 numbers

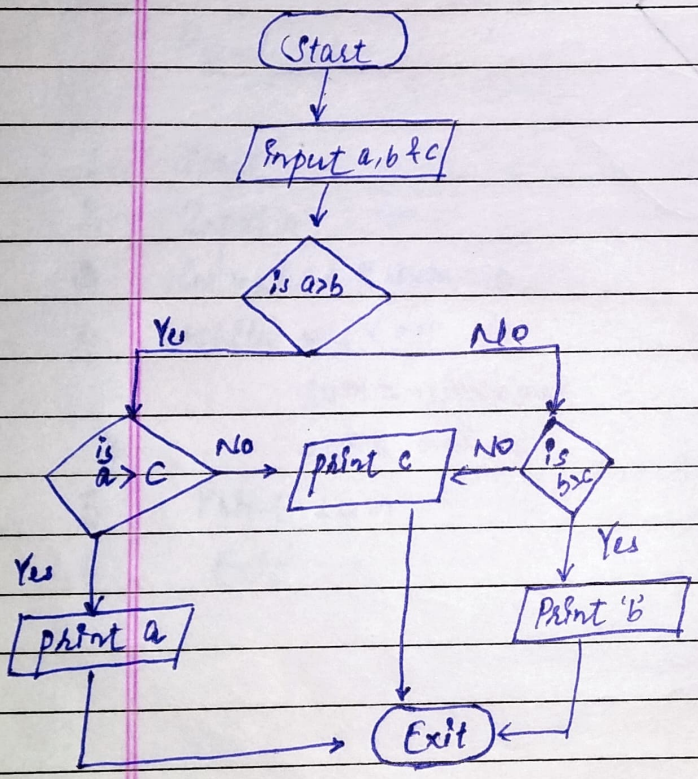
Input: 3 numbers
a, b & C.

Output: max of 3.

Pseudo-code

1 start
2 Input a, b & c.
3 If a>b do
    If a>c do
        print a
    else
        print c
else
    If b>c do
        print b
    else
        print c
4 Exit

Flowchart



Question Sum of N natural numbers

n = 4,
sum = 1+2+3+4 → 10

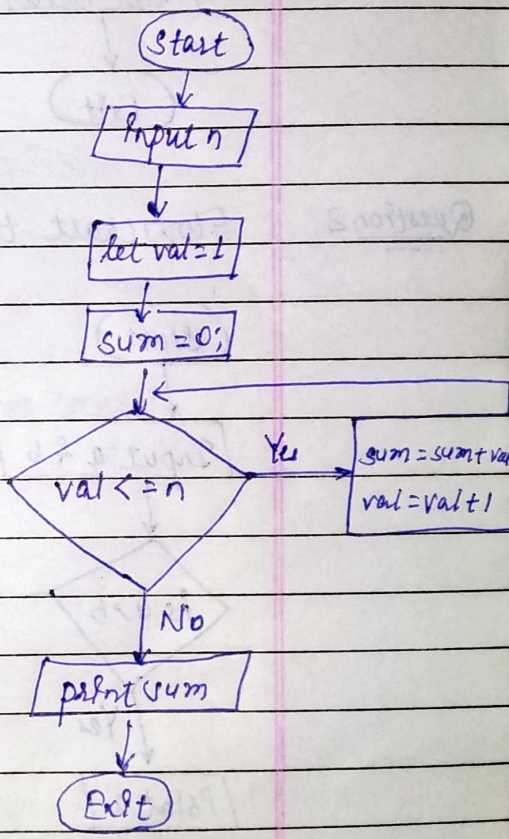
n = 5,
sum = 1+2+3+4+5 → 15

Here, We are taking n = 10 for ques

Pseudo code

1 Start
2 Input n
3 let val = 1 & sum = 0
4 While val <= n do
    sum = sum + val
    val = val + 1
5 Print sum
6 Exit

Flowchart



val <= n है तब तक sum में add करते जाओ और value को increase करते जाओ

val = val + 1 [here we increase val by 1 so that it will again check if val <= n or not]