**Q. Write a Problem Analysis Chart (PAC), Algorithm and Flowchart for finding the sum of N consecutive numbers.**

PAC

|  |  |  |  |
| --- | --- | --- | --- |
| **Data** | **Processing** | **Output** | **Solution Alternatives** |
| Start Number, A  Number of consecutive numbers, N | Sum of N consecutive numbers starting from A | Print Sum of N consecutive numbers starting from A |  |

Algorithm

* Start
* Use variable **START\_NUMBER**, **TEMP\_STORE**, **NUMBER**
* Read **START\_NUMBER**, **NUMBER**
* Initialize **counter** = 1
* Initialize **TEMP\_STORE** = **START\_NUMBER**
* while (**counter** < **NUMBER**):

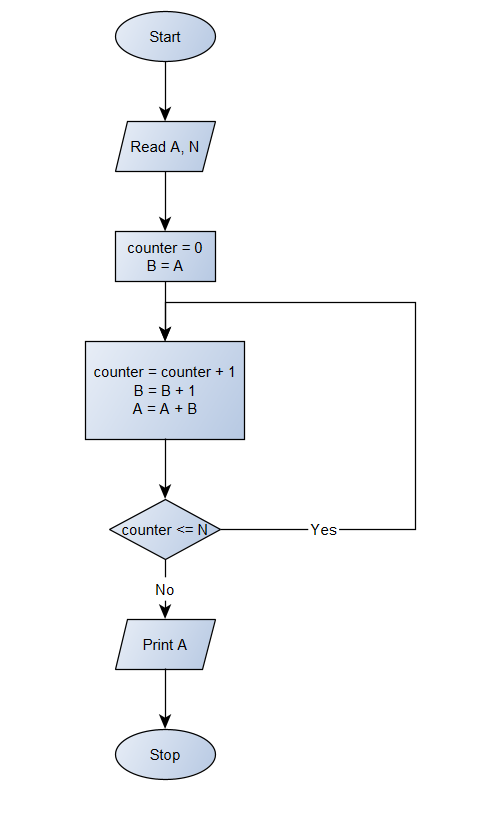
**counter** = **counter** + 1

**TEMP\_STORE** = **TEMP\_STORE** + 1

**START\_NUMBER** = **START\_NUMBER** + **TEMP\_STORE**

* end-while
* Print **START\_NUMBER**
* Stop

Flowchart



Python Program

Start\_Number = int(input(**"Enter the starting number : "**))  
Number = int(input(**"Enter how many consecutive terms you want to add : "**))  
Temp\_Store = Start\_Number  
counter = 1  
while (counter < Number):  
 counter += 1  
 Temp\_Store += 1  
 Start\_Number += Temp\_Store  
print(**"Sum :"**, Start\_Number)