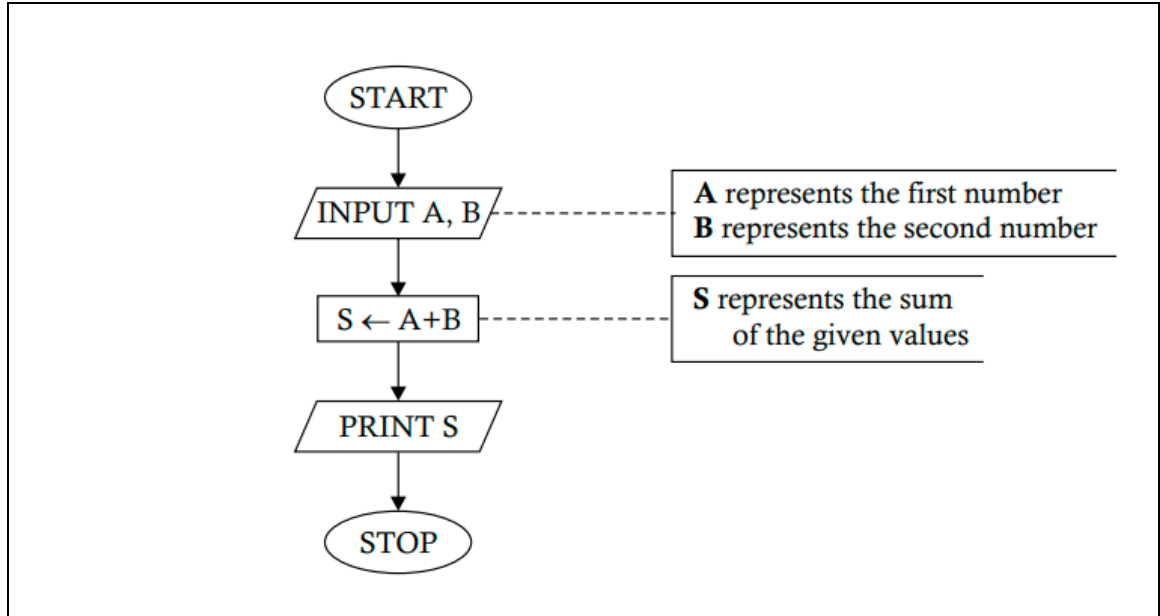


## PROJECT

1. Write the algorithm, pseudo code and python code for the given flowchart.



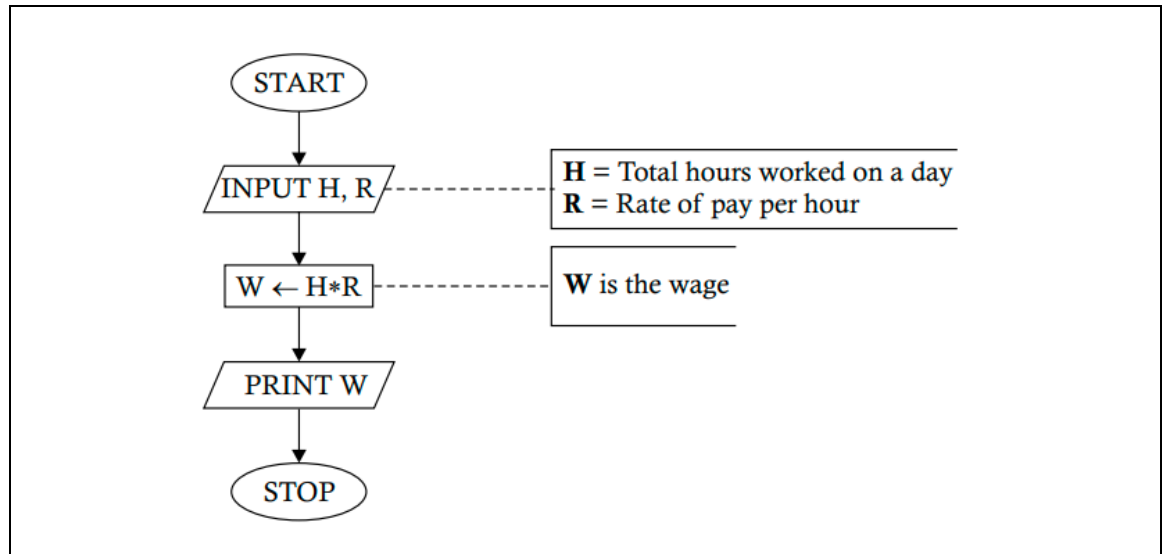
2. Draw the flowchart for the given algorithm and write the pseudo code and python code

**Step 1.** INPUT TO A, B  
**Step 2.**  $S \leftarrow A + B$   
(Store the sum of the values in A and B and store in S)  
**Step 3.**  $AVG \leftarrow S/2$   
(Compute the average)  
**Step 4.** PRINT AVG (Show the average)  
**Step 5.** STOP

3. Construct a flowchart to show how to obtain the volume of a rectangular box with the help of given algorithm and write the pseudo code and python code

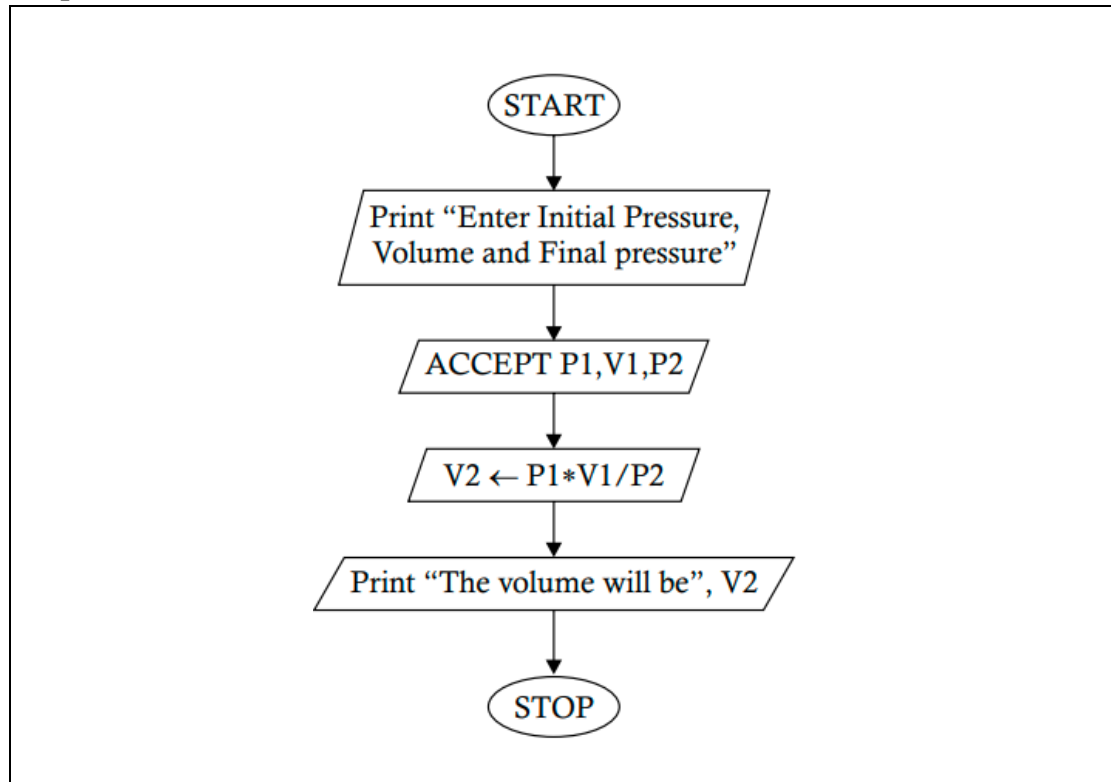
**Step 1.** INPUT TO L, B, H  
**Step 2.** COMPUTE  $V \leftarrow L*B*H$   
**Step 3.** PRINT V  
**Step 4.** STOP

4. Write the algorithm to show how to obtain the daily wage of a worker on the basis of the hours worked during the day and write the pseudo code and python code



5. Construct a flowchart to show how to obtain the area of a triangle on the basis of the base and height and write the algorithm, the pseudo code and python code
6. Develop a flowchart to show the steps in finding the **simple interest** on a given amount at a given rate of interest and write the algorithm, the pseudo code and python code.
7. If P amount of money is invested for N years at an annual rate of interest I, the money grows to an amount T, where T is given by  $T = P (1 + I/100)^N$ . Draw a flowchart to show how T is determined and write the algorithm, the pseudo code and python code
8. Construct a flowchart to show how a student's registration number and grades in 3 subjects, m1, m2, and m3, are displayed along with the total average grade.
- Hint:** The data supplied as inputs are the registration number and grades obtained in three subjects. The registration number contributes nothing to the process of deriving the desired output; it just identifies the person about whom the total grade and the average grade are obtained. The total grade can be obtained by taking the sum of the marks m1, m2, and m3, and the average can be obtained by dividing the total by 3.

9. Draw a flowchart to determine the volume  $V_2$  of a certain mass of gas at a pressure  $P_2$  if the initial volume is  $V_1$  at a pressure  $P_1$ , keeping the temperature constant.



10. Draw a flowchart to show how to interchange the values of two variables and write the algorithm, the pseudo code and the Python code.