

its ability to extend itself. We can, continue
- only add our own functions and already
written programme.

Algorithm is a set of instructions.

A series of procedural steps required
to solve a given problem is called an
algorithm. To obtain a meaningful result
from a given problem using computers, there
are five distinct phases.

1. Choice of Method.
2. Designing the Algorithm.
3. Flow charting.
4. Programming.
5. Computer Execution.

An algorithm has five important
features.

1. Finiteness: An algorithm must terminate
after a finite no. of steps.

2. **Definiteness**: Each step of an algorithm must be clearly defined.

3. **Outputs**: An algorithm must specify the quantity which are to be outputted.

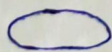
4. **Inputs**: An algorithm must specify the quantities that must be read before the algorithm begins.

5. **Effectiveness**: It must be effective which means all operations are executable.

Flow Chart:

Flow chart is a symbolic or diagrammatic representation of an algorithm. It uses several geometrical figures.

SYMBOLS

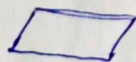


OPERATIONS

Start / Stop

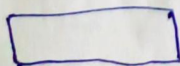
MEANINGS

→ the beginning and the ending of the flow chart.



Input / Output

→ the values to be given by the user and results to be displayed

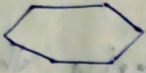


Processing

→ the arithmetic operation to compute a value.



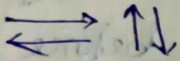
checking / decision making



looping $\rightarrow$ repeated execution of an operation.

o

connector



arrows $\rightarrow$ represents the direction of flow.

Q: To find the sum and product of two given numbers.

Algorithm:

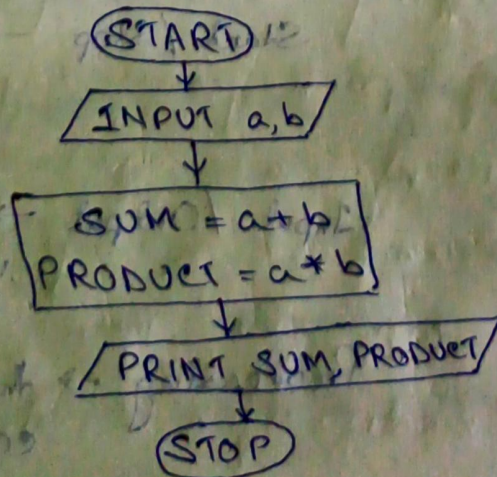
Step 1. Read or Input a, b

Step 2. $SUM = a + b$

Step 3. $PRODUCT = a * b$

Step 4. PRINT SUM, PRODUCT

Flow Chart



Q: Write the algorithm and draw the flow chart to find the area of a Δ whose sides are a, b, c .

Algorithm

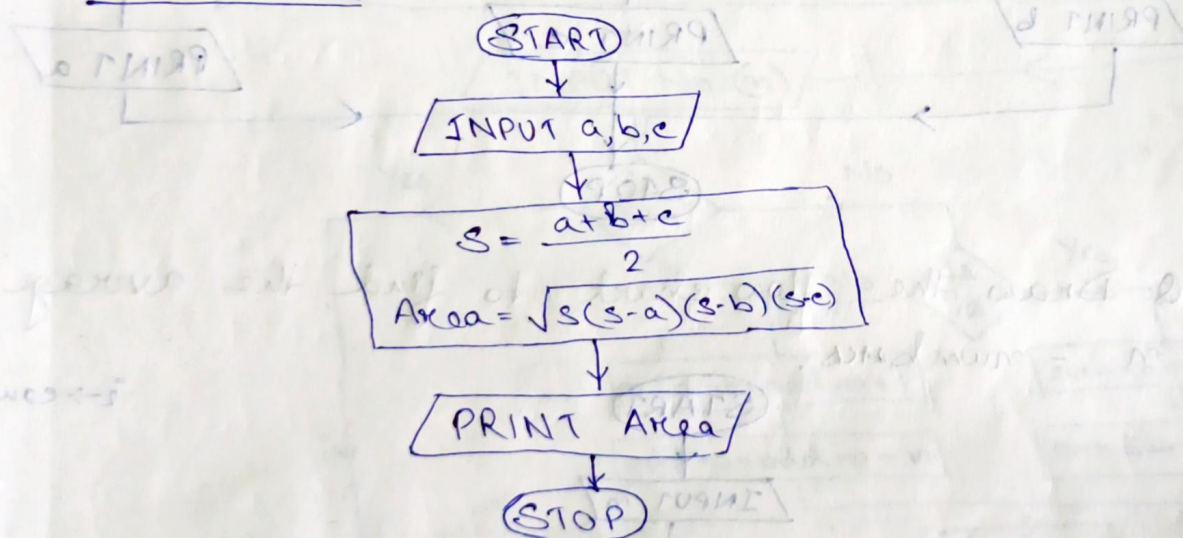
Step 1. Read a, b, c

Step 2. $s = \frac{a+b+c}{2}$

Step 3. Area = $\sqrt{s(s-a)(s-b)(s-c)}$

Step 4. Print Area

Flow Chart

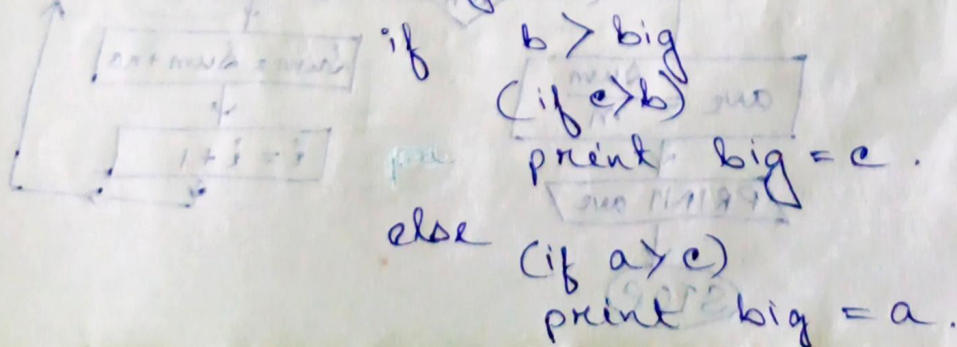


Q: To find the greatest of the given 3 nos.

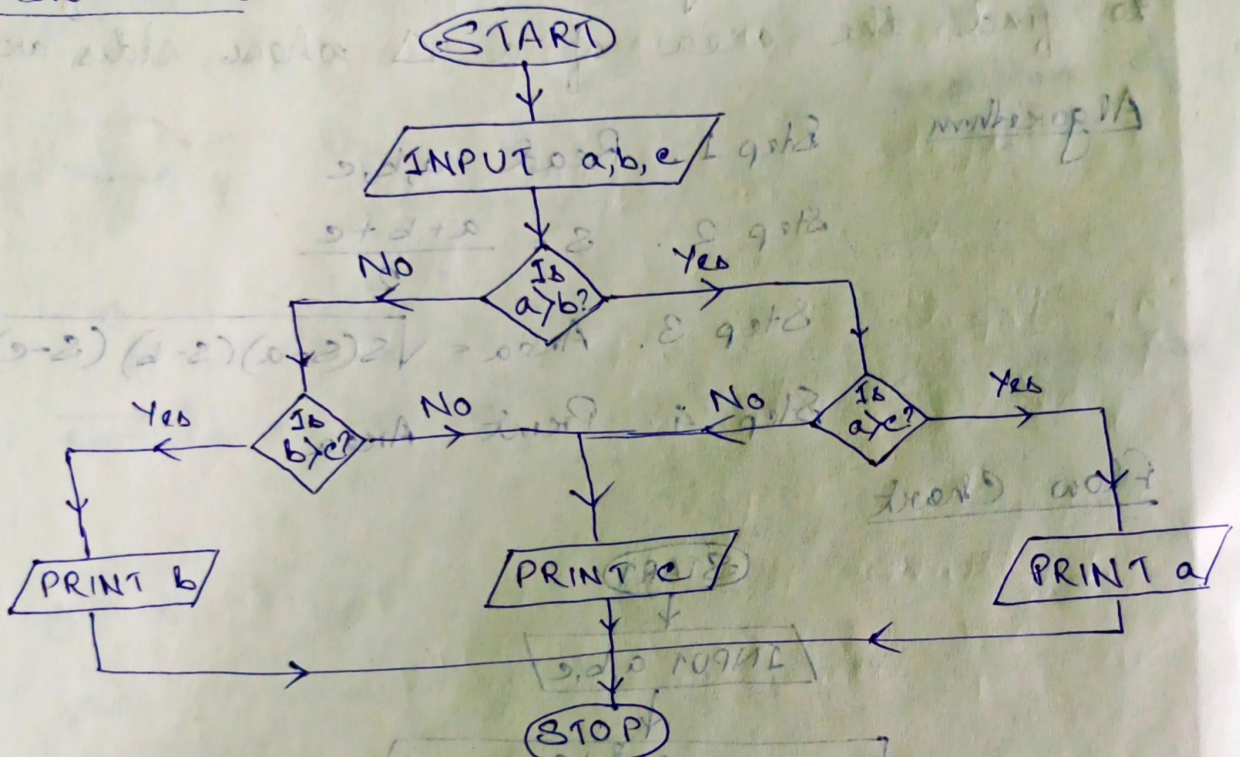
Algorithm

Step 1: Input a, b, c

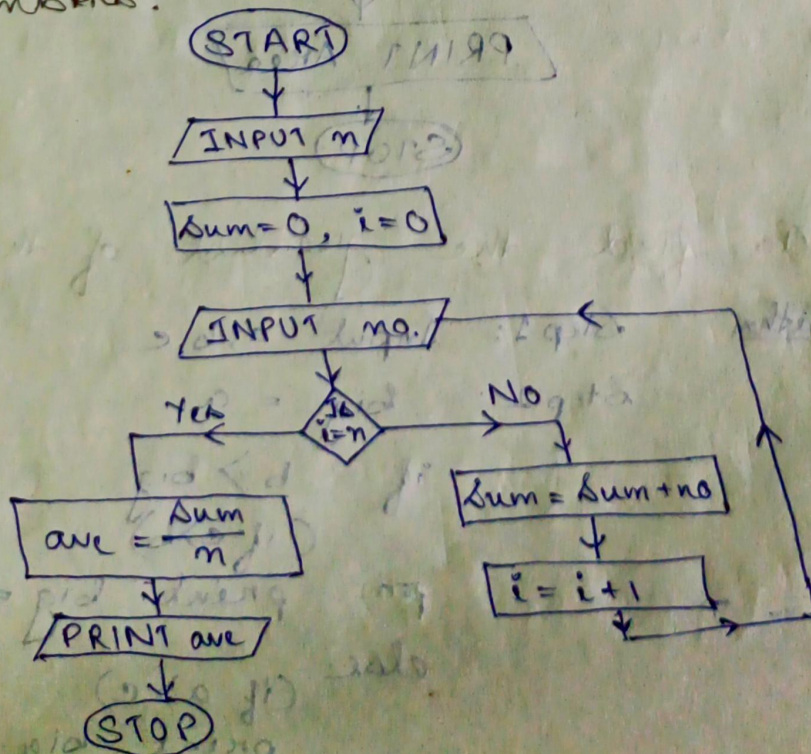
Step 2: big = a



Flow chart



Q: Draw the flow chart to find the average of n - numbers.



Q. Given a set of n integers. Draw the flow chart to find

1. Total no. of even integers.
2. Total no. of odd integers.
3. Sum of even integers.
4. Sum of odd integers.

