

1. Write a algorithm and draw the flowcharts for the following

a. Print even numbers between 0 to 99

## Algorithm:-

Step 1:- Start

Step 2:-  $i \leftarrow 0$

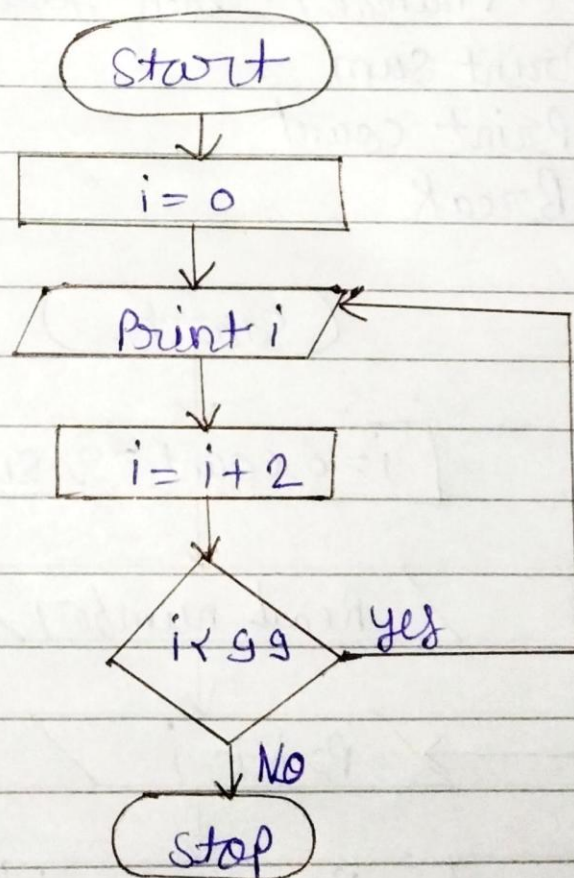
Step 3:- Print the value of  $i$

Step 4:-  $i \leftarrow i + 2$

Step 5:- if ( $i < 99$ ) then goto step 3

Step 6:- End

## Flowchart :-



- b. Print odd number less than a given number. It should also calculate their sum and count.

## Algorithm:-

Step 1:- Start

Step 2:-  $i \leftarrow 1$ , Count = 0, Sum = 0

Step 3:- Read number

Step 4:- Print the value of  $i$

Step 5:-  $\text{Sum} = \text{Sum} + i$

Step 6:-  $\text{Count} = \text{Count} + 1$

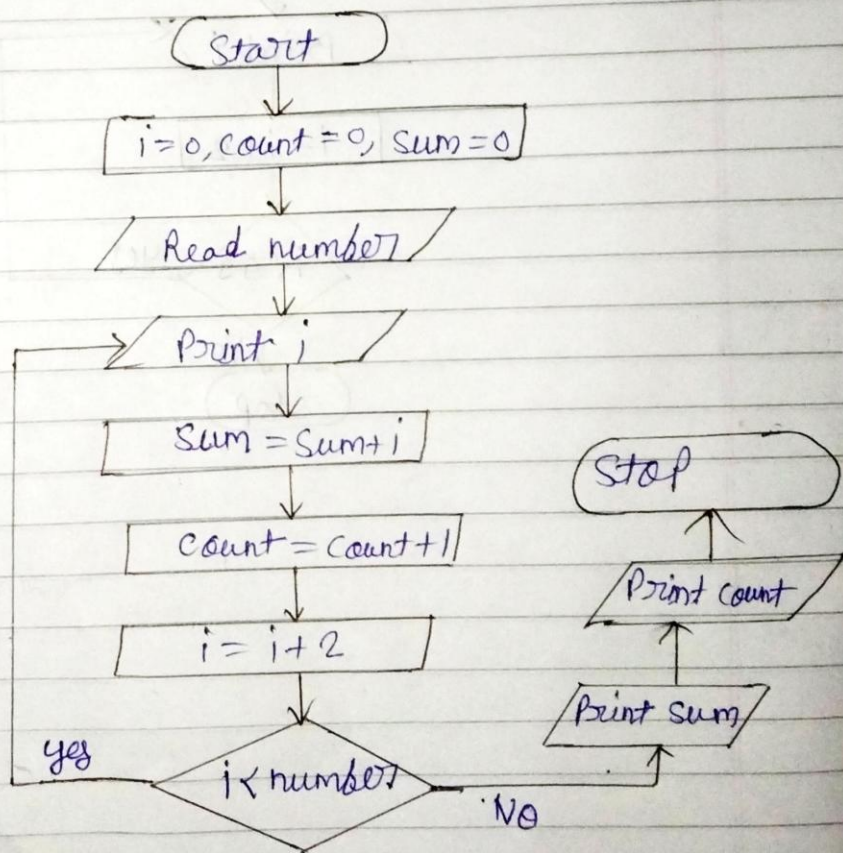
Step 7:-  $i = i + 2$

Step 8:- if ( $i < \text{number}$ ) then goto step 4

Step 9:- Print Sum

Step 10:- Print count

Step 11:- Break



c. Calculate the average of 25 test sources.



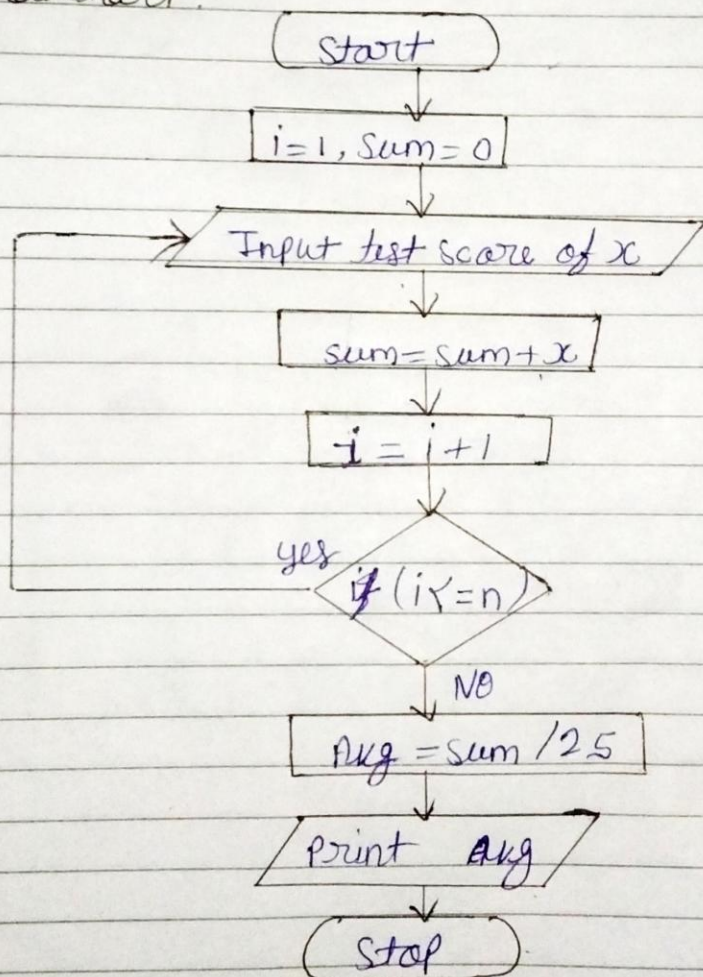
Algorithm:-

Step 1:- start

Step 2:-  $i \leftarrow 1, \text{Sum} = 0$ Step 3:- Input test score of  $x$ Step 4:-  $\text{sum} = \text{sum} + x$ Step 5:-  $i = i + 1$ Step 6:- if ( $i \leq 25$ ) then goto step 3Step 7:-  $\text{avg} = \text{sum} / 25$ 

Step 8:- Print the value of avg

Step 9:- Stop

Flowchart:-

d. Print table of any number N (say 7)

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Algorithm:-

Step 1:- Start

Step 2:- Input the number for which multiplication table is to be generated.

Step 3:-  $i = 1$

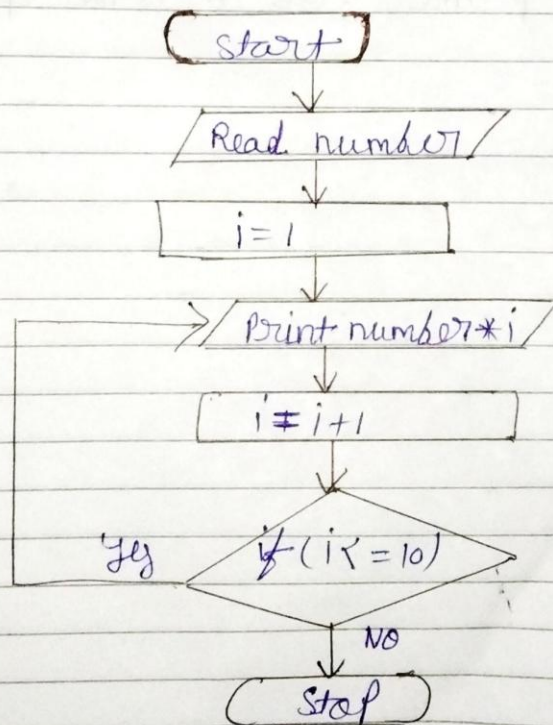
Step 4:- Print  $\text{number} * i$

Step 5:-  $i = i + 1$

Step 6:- if  $(i \leq 10)$  then goto step 4

Step 7:- Stop

Flowchart:-





e. Check if the given number is prime or not.

Algorithm:-

Step 1:- Start

Step 2:- Read value 'n' to check prime or not

Step 3:-  $i = 1$ , count = 0

Step 4:- if  $i \leq n$ , if true goto step 5,  
else goto step 8

Step 5:- check the condition  $n \% i == 0$  if true  
then goto step 6, else goto step 7

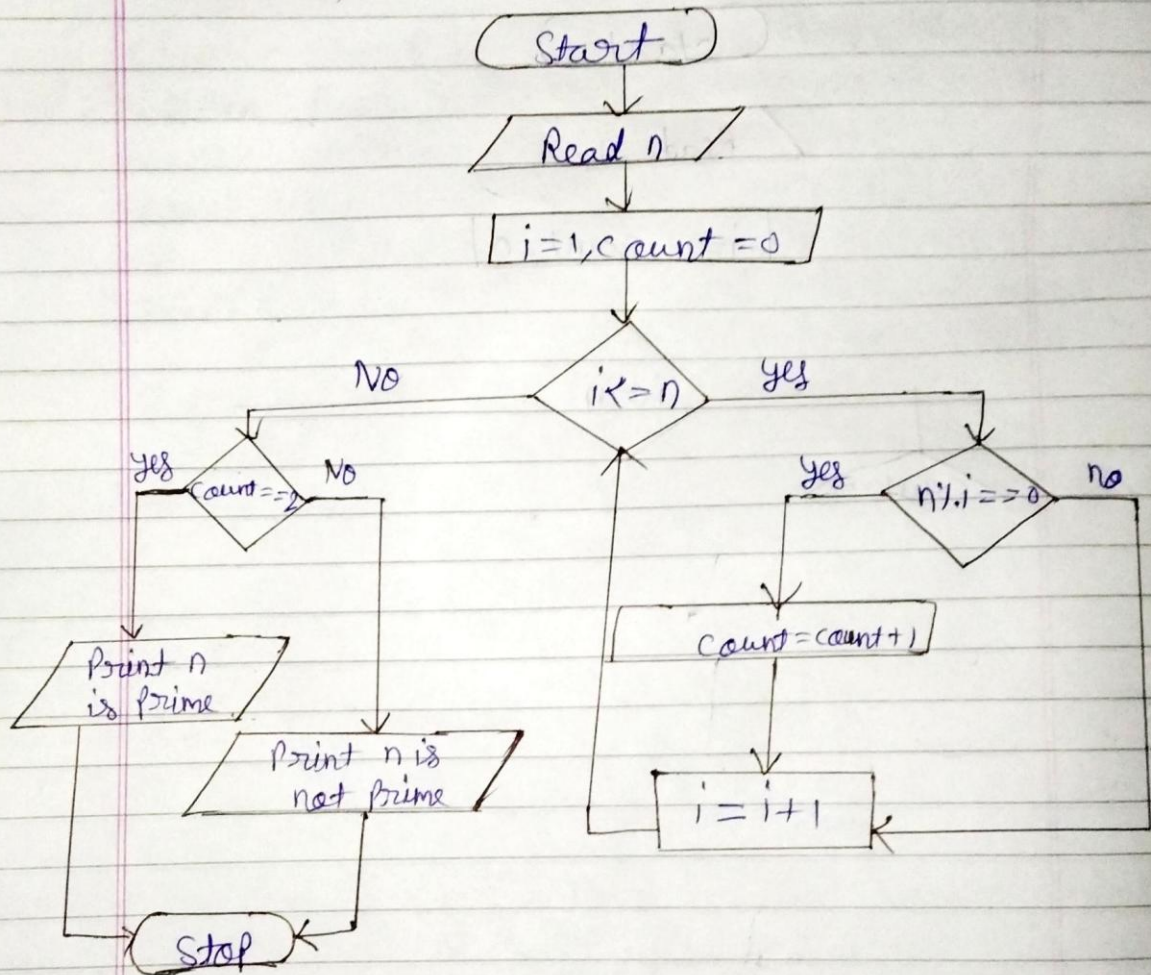
Step 6:- count = count + 1

Step 7:-  $i = i + 1$  goto step 4

Step 8:- check count, if count = 2, then print  
it is prime else it is not prime



Flawchart:-



f. Print odd numbers backward from 99 to 1.

## Algorithm:-

Step 1:- Start

Step 2:-  $i = 99$

Step 3:- Print the value of  $i$

Step 4:-  $i \leftarrow i - 2$

Step 5:- ~~if~~  $(i \geq 1)$  then goto Step 3

Step 6:- Stop

## Flowchart:-

