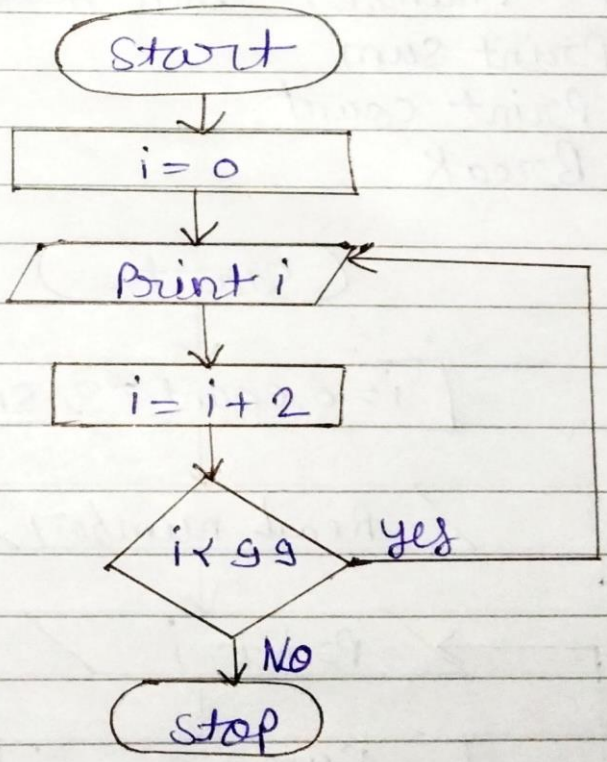
1. Write the algorithm and draw the flowchart for the following :

a. Print even numbers between 0 to 99.

Algorithm :-

Step 1 :- Start
Step 2 :- i ← 0
Step 3 :- Print the value of i
Step 4 :- i ← i + 2
Step 5 :- if (i < 99) then goto step 3
Step 6 :- End

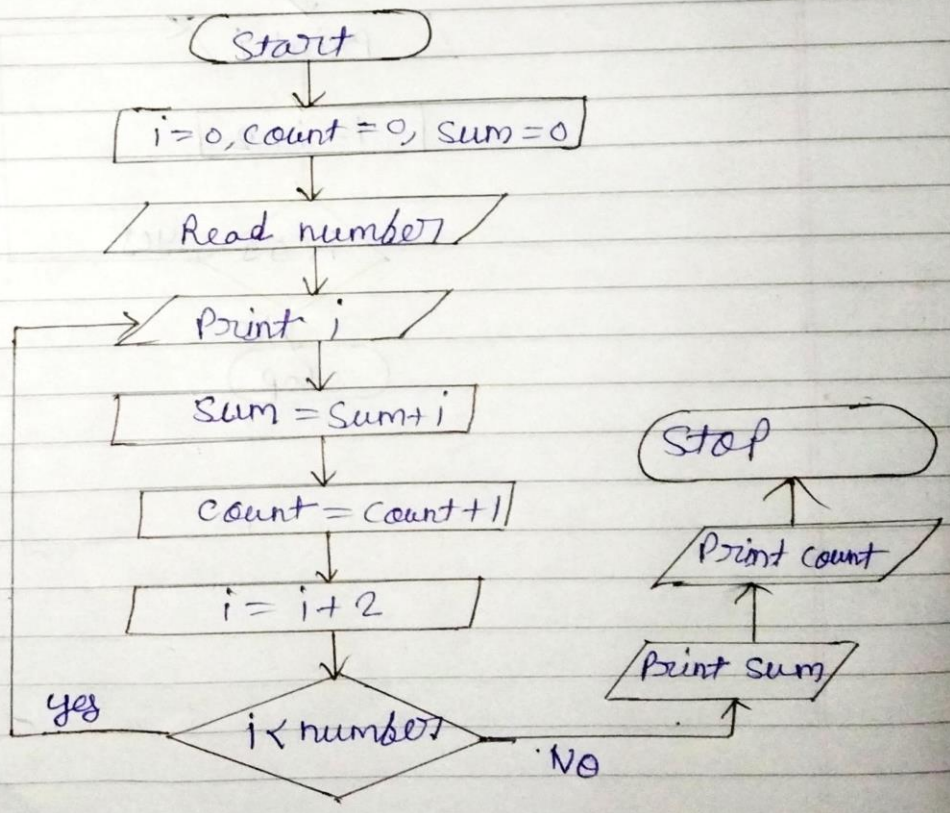
Flowchart :-



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

Algorithm:-

Step 1:- Start
Step 2:- i ← 1, count = 0, sum = 0
Step 3:- Read number
Step 4:- Print the value of i
Step 5:- Sum = Sum + i
Step 6:- count = count + 1
Step 7:- i = i + 2
Step 8:- if (i < number) then goto step 4
Step 9:- Print sum
Step 10:- Print count
Step 11:- Break



c. Calculate the average of 25 test scoures.

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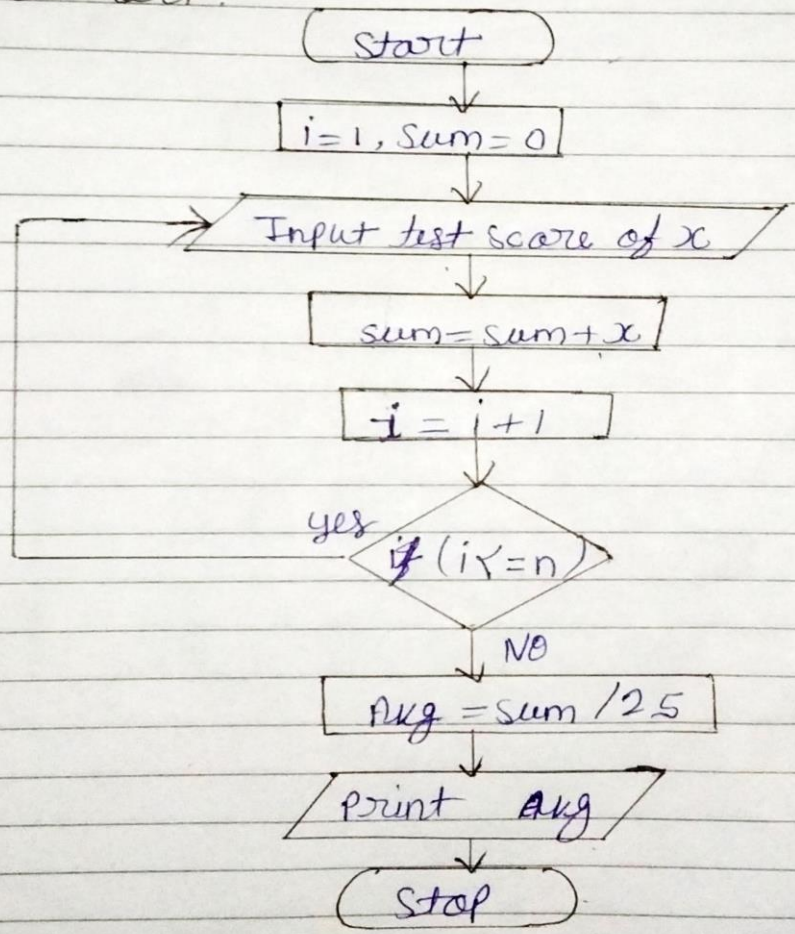
Algorithm:-

Step:- start
Step 2:- i ← 1, Sum = 0
Step 3:- Input test score of x
Step 4:- Sum = Sum + x
Step 5:- i = i+1
Step-6:- if (i<=25) then goto step 3
Step-7:- avg = 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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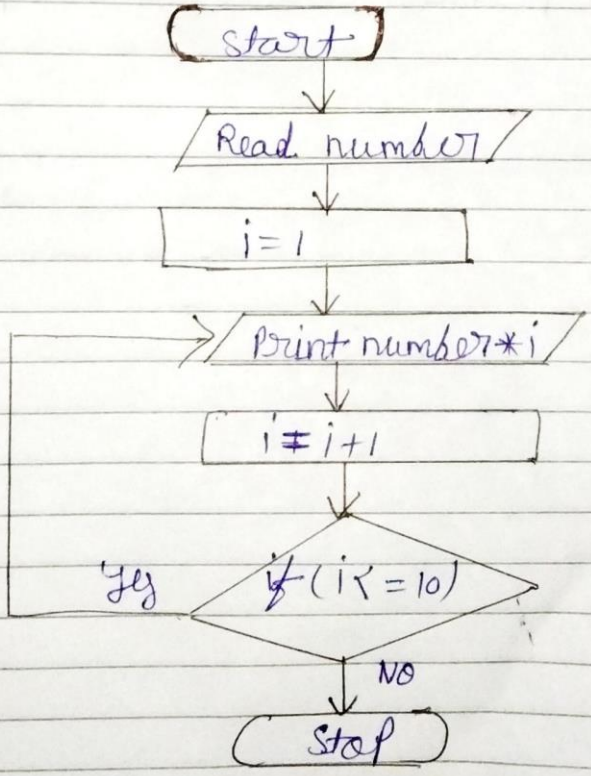
Algorithm:

Step 1:- Start
Step 2:- Input the number for which multiplication table is to be generated.
Step 3:- i=1
Step 4:- Print number*i
Step 5:- i=i+1
Step 6:- if (i<=10) then goto step 4
Step 7:- Stop

Flowchart:-

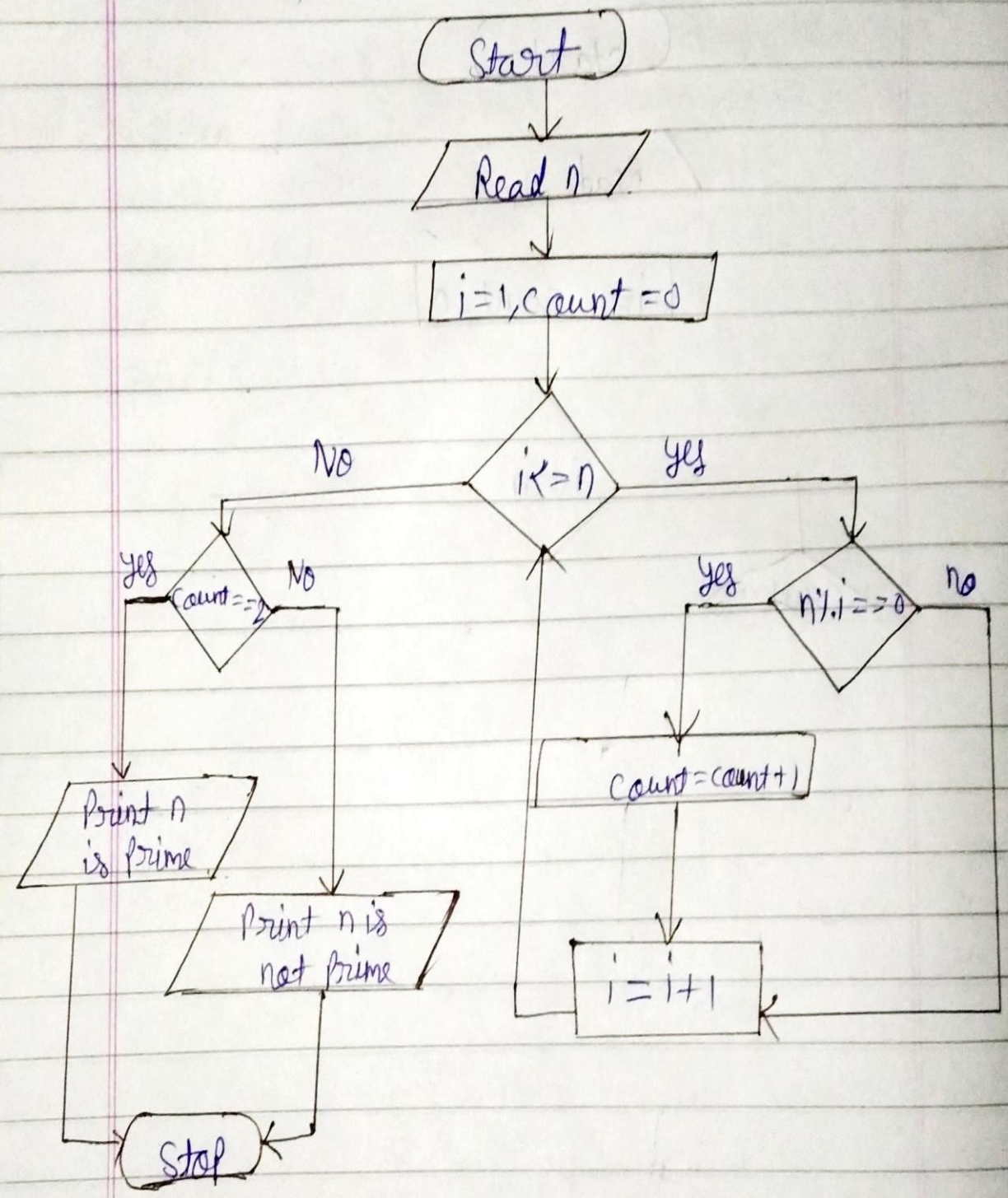


e. Check if the given number is prime or not.

Algorithm:-

Step1:- Start
Step2:- Read value 'n' to check prime or not
Step3:- i=1, count=0
Step4:- if i<=n, if true goto step 5,
else goto step 8
Step5:- check the condition n%i==0 if true
then goto step 6, else goto step 7
Step6:- count = count+1
Step7:- i = i+1 goto step 4
Step8:- check count, if count==2, then print
it is prime else it is not prime

Flowchart:-


Start
Read n
i=1, count=0
i<=n
No
Yes
count==2
Yes
No
Print n is Prime
Print n is not Prime
Stop
n%i==0
Yes
no
count=count+1
i=i+1

f. Print odd numbers backward from 99 to 1.

Algorithm:-

Step1:- Start
Step2:- i=99
Step3:- Print the value of i
Step4:- i ← i-2
Step5:- if(i>=1) then goto Step 3
Step6:- Stop

Flowchart:-