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ASSIGNMENT 2

1. Write the Algorithm and draw the flowcharts for the following:
a) Print even numbers between 0 and 99
Algorithm:

Step 1: Start.

Step 2: I = 0.

Step 3: Accept the numbers.

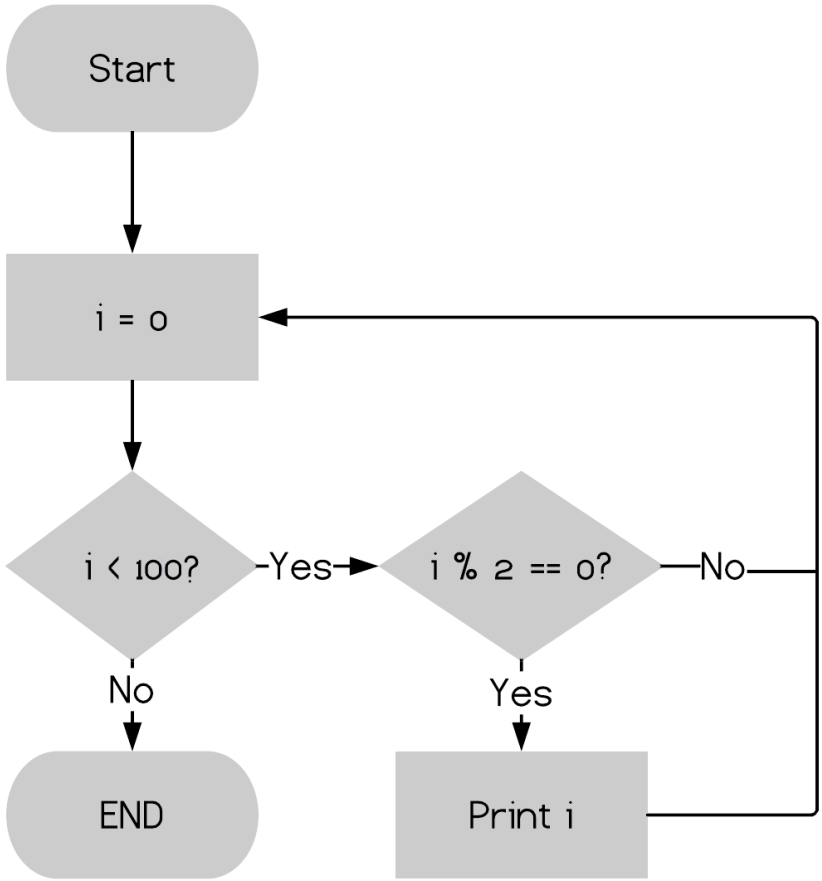
Step 4: while(i<100)

Step 5: if(number % 2 == 0)

Step 6: display the number

Step 7: 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: Read N

Step 3: declare s=0, c=0, i=1

Step 4: Display i

Step 5: s=s+i

Step 6: w=w+1

Step 7: i=i+2

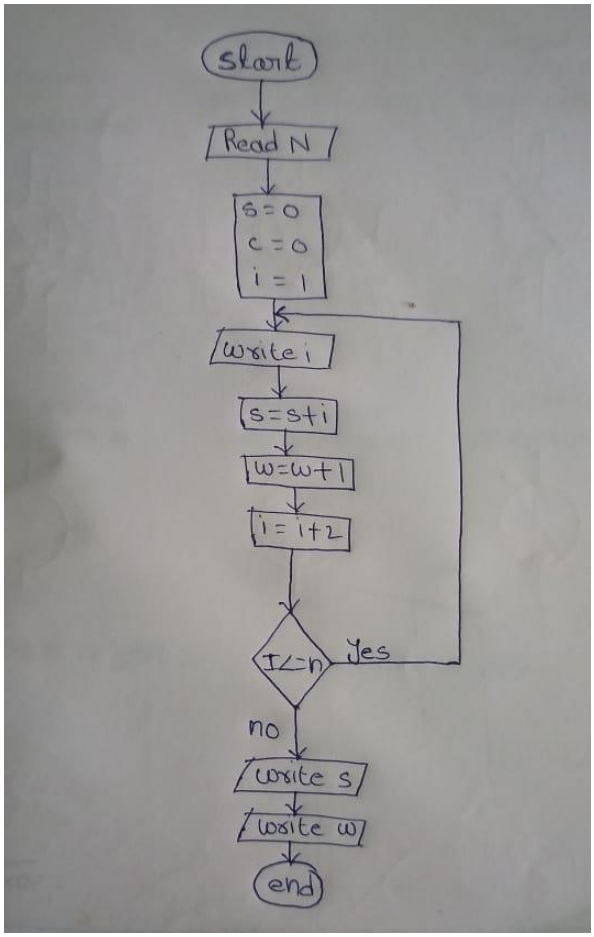
Step 8: if 1<=n, go to step 4, else proceed to step 9

Step 9: write s

Step 10: Write w

Step 11: End

Flowchart:



c) Calculate the average of 25 test scores

Algorithm:

Step 1: Start

Step 2: Declare sum=0

Step 3: for i=1 to 25

Step 4: sum += score[i]

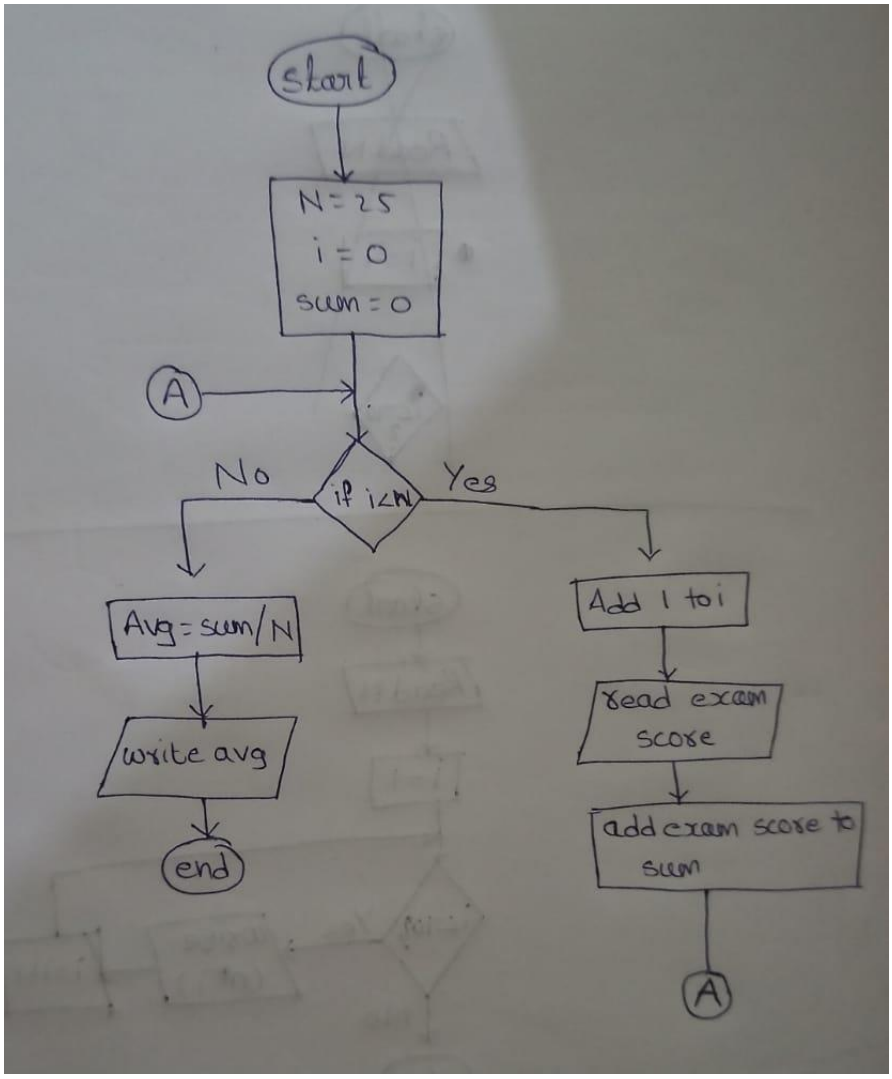
Step 5: next i

Step 6: avg = sum/25

Step 7: Display avg

Step 8: End

Flowchart:



d) Print table of any number N

Algorithm:

Step 1: Start.

Step 2: Input N, the number for which multiplication table is to be printed

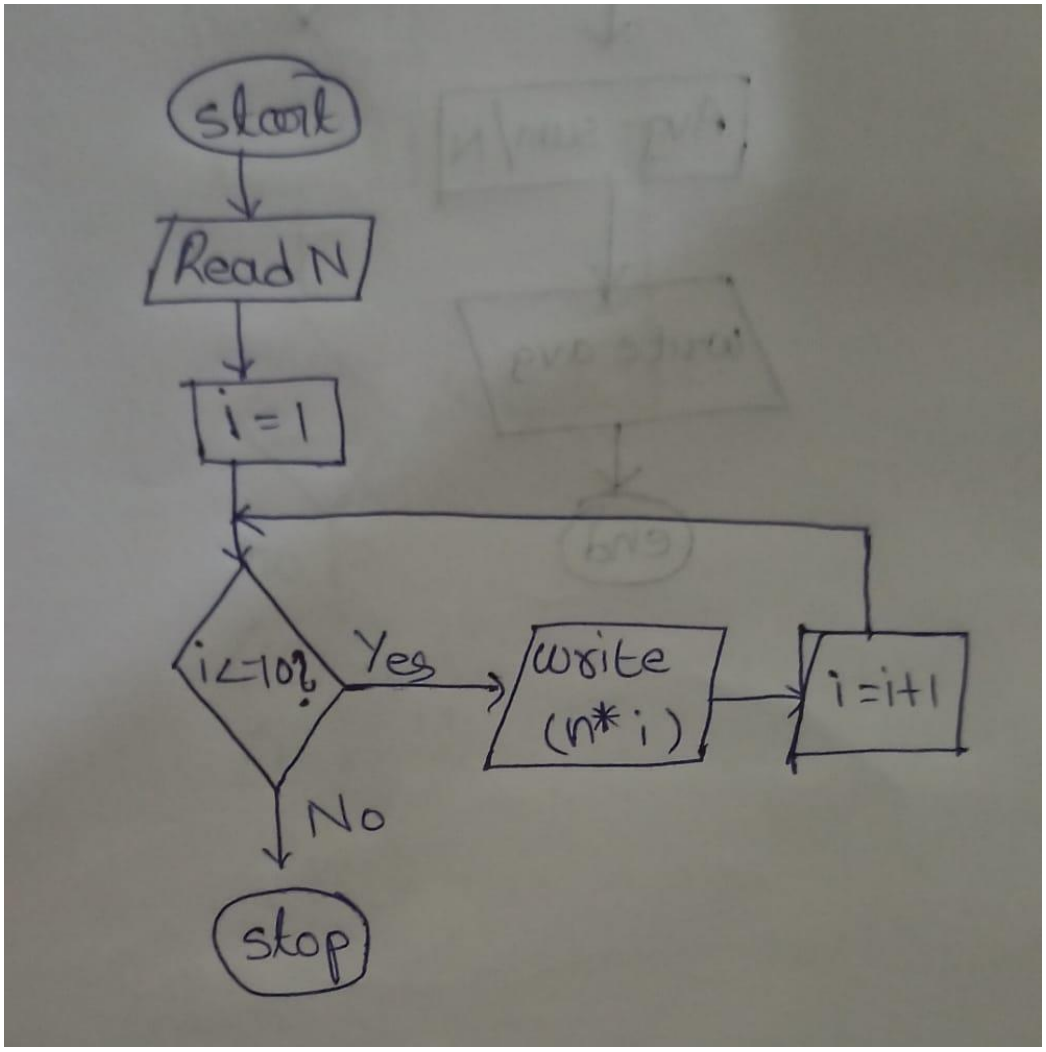
Step 3: For I = 1 to 10

Step 4: Print ANS = N * I

Step 5: End For

Step 6: Stop.

Flowchart:



e) Check if the given number is Prime or not

Algorithm:

Step 1: Start

Step 2: Declare the variables n, i, flag.

Step 3: Initialize the variables flag= 1 and i=2

Step 4: Input the number 'n' from user.

Step 5: Repeat the steps until i< (n/2)

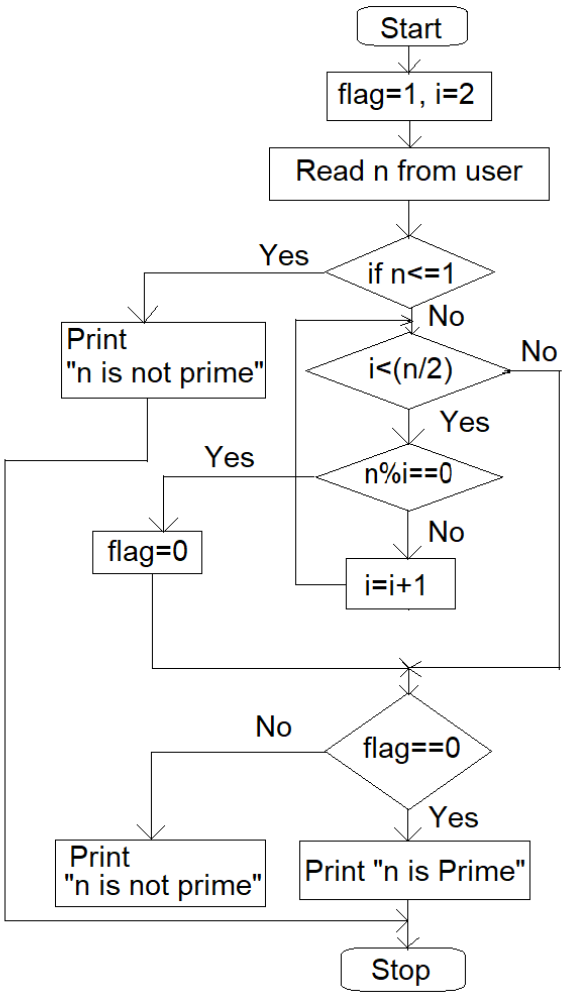
Part 1: If remainder of n/i equals, Set flag=0 Go to step 6, else

Part 2: i=i+1

Step 6: If flag=0, Display: the number is not prime. Else, Display the number is prime

Step 7: Stop

Flowchart:



f) Print odd numbers backward from 99 to 1

Algorithm:

Step 1: Start
Step 2: Initialize the variable i to 1.
Step 3: while i<=100
Step 4: if i%2==0
Step 5: print the number
Step 6: decrement value of i
Step 7: stop

Flowchart: