Assignment 1

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Q1) check if the given no. is even or odd?

Algorithm:

Step1:start

Step2: Enter a number

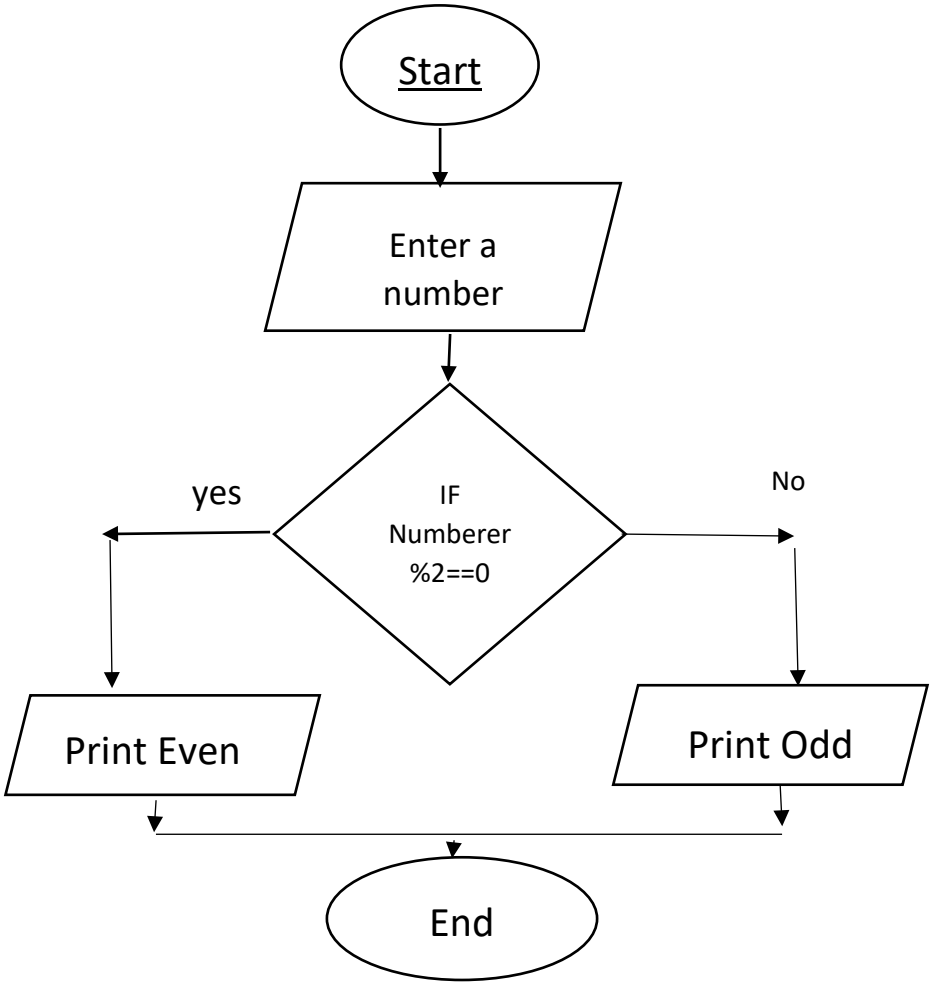
Step3:check if it is even or odd

Step4: If even print “even”(a mod 2=0)

Step5: Else print”odd”

Step6: End

Flowchart:

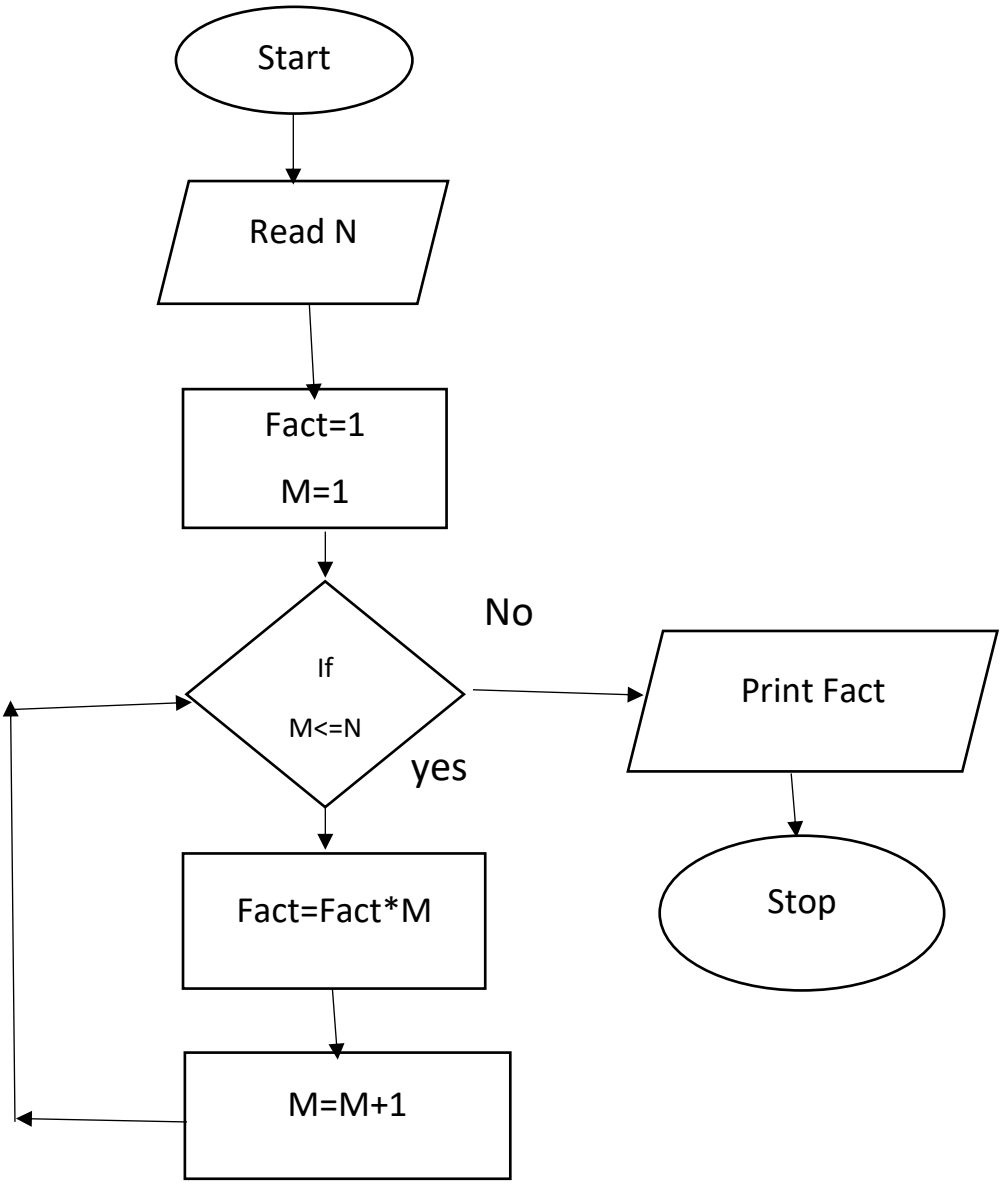


Q2) Find factorial of a given number.

Algorithm:

Step1: Start
Step2: Read number N
Step3: Fact=1 M=1
Step4: While (M<=N)
Do
Fact=Fact*1
M=M+1
Done
Step5: Display Fact
Step6:Stop

Flowchart:



Q3)

Q4)Swap two numbers without using third variable

Algorithm:

Step1:Strat

Step2:Enter x,y

Step3:Print x,y

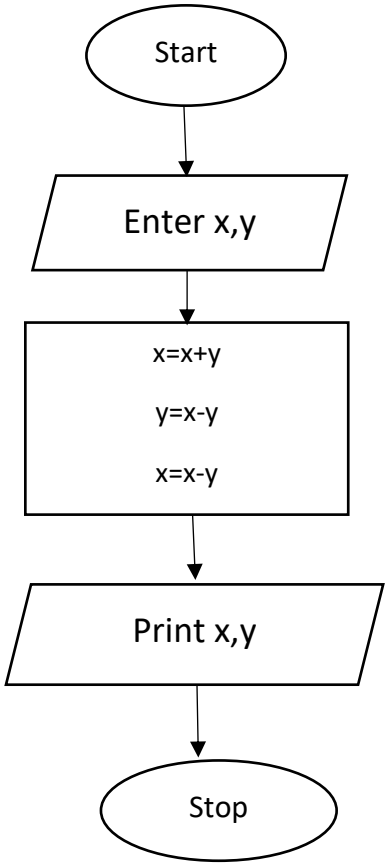
Step4: x=x+y

Step5: y=x-y

Step6: x=x-y

Step7:Print x,y

Step8:End



Q5) check whether given no. is positive or negative

Algorithm:

Step1:Start

Step2:Enter number

Step3:If Num >0 then

Print Positive;

Else if Num<0 then

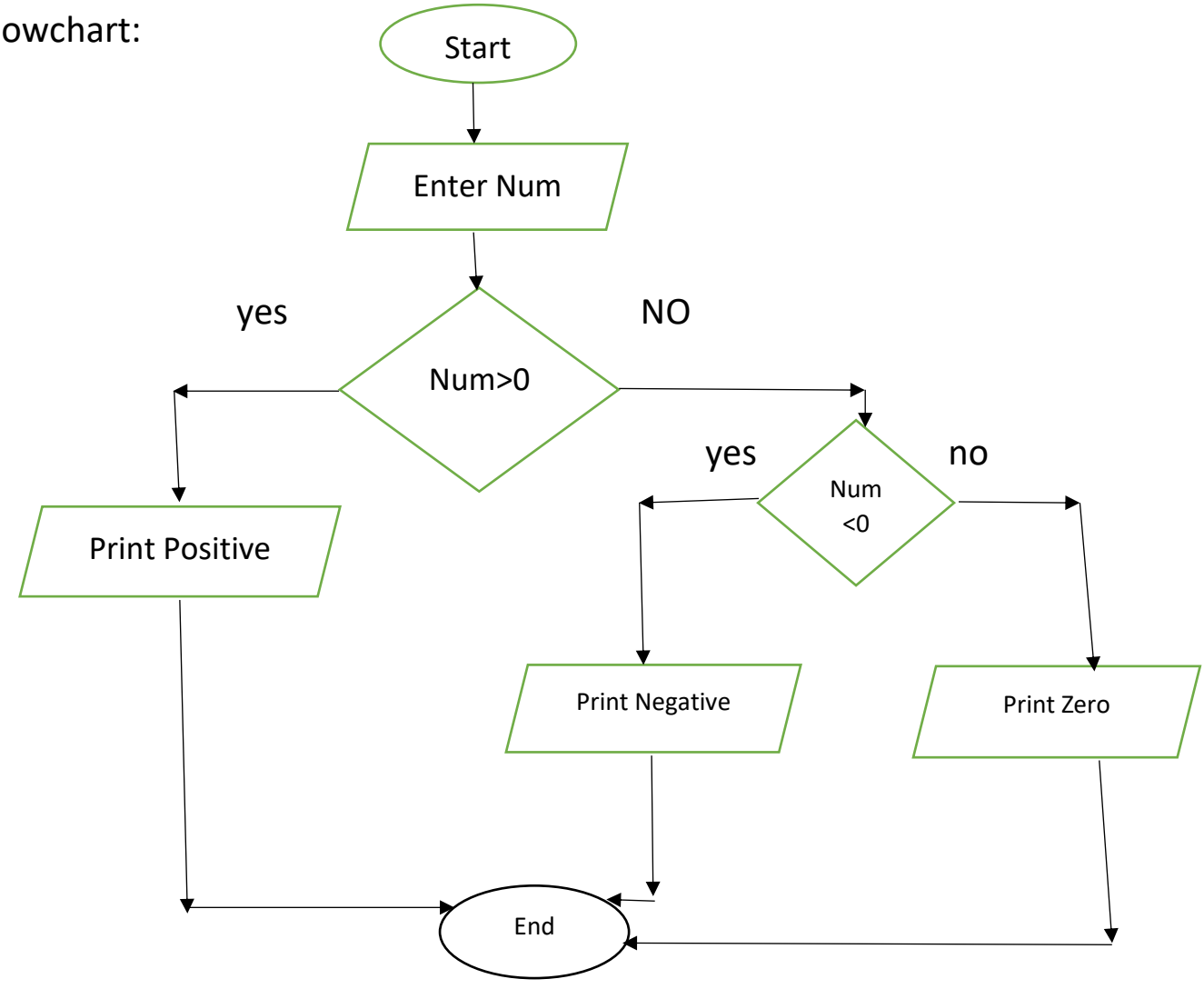
Print negative;

Else

print zero

Step4:Stop

Flowchart:



Q6) Find whether the given number is leap year or not

Algorithm:

Step1:Start

Step2: Read year

Step3:Remainder= year%4

Step4:if(rem==0)then

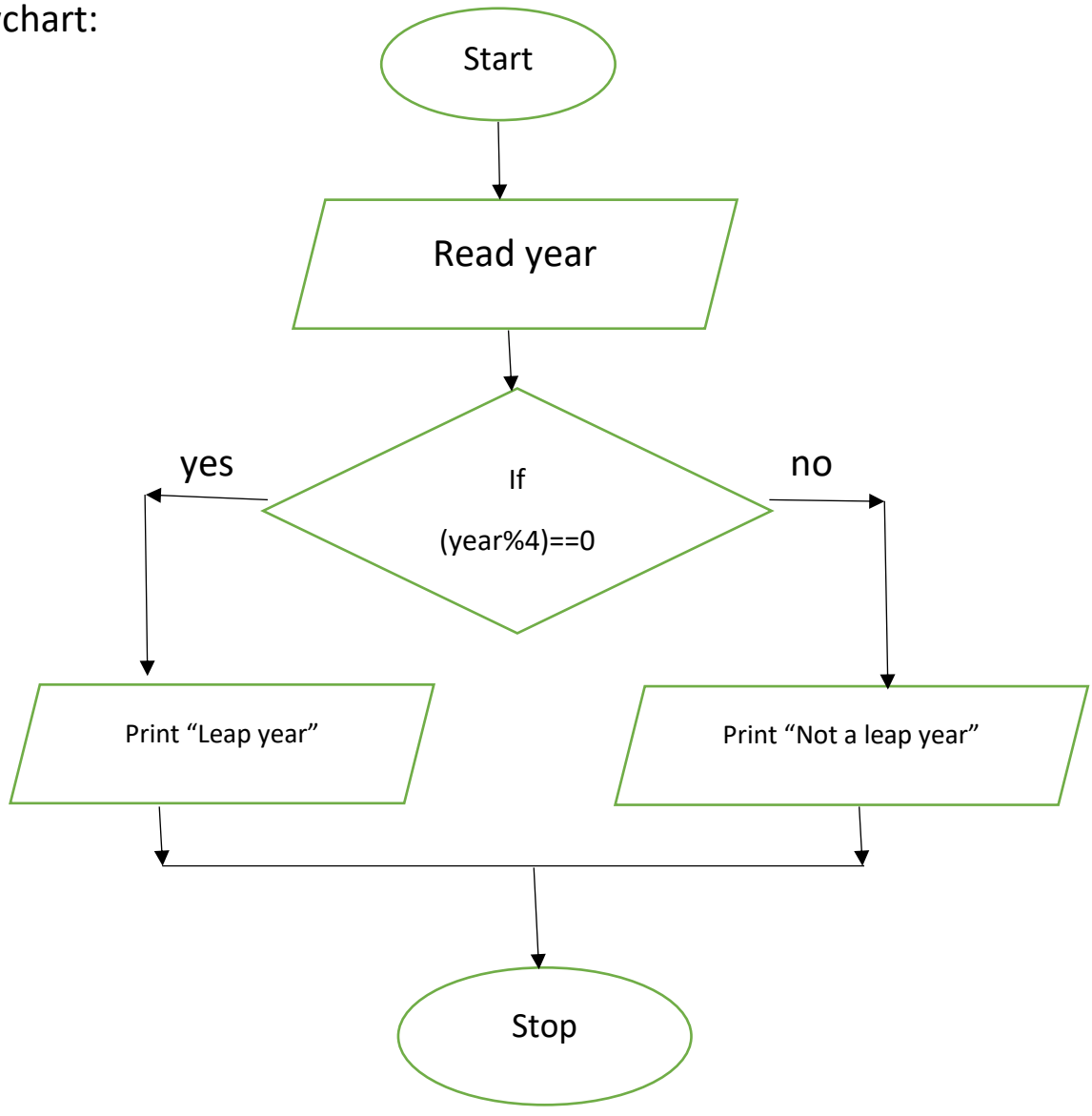
Print “Leap year”

Else

Print “ Not a leap year”

Step5: Stop

Flowchart:



Q7) Print 1 to 10 without using loop

Algorithm:

Step1: Start

Step2: print 1

Step3:print 2

Step4; print 3

Step5:print 4

Step6:print 5

Step7:print 6

Step8: print 7

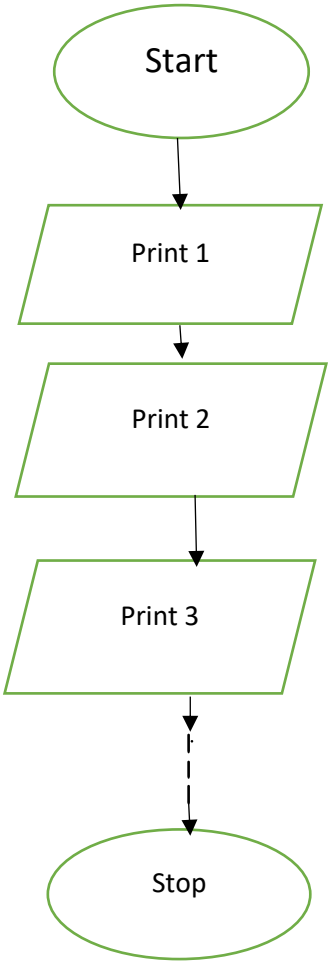
Step9:print 8

Step10:print 9

Step11:print 10

Step12:Stop

Flowchart:



Q8)

Q9) Print all the factors of given no.

Algorithm:

Step1:Start

Step2: enter a number

Step3:assign i=1

Step4: Check I is less than equal input number or not, if I is less than equal input number then go to step no.5 otherwise go to step 8.

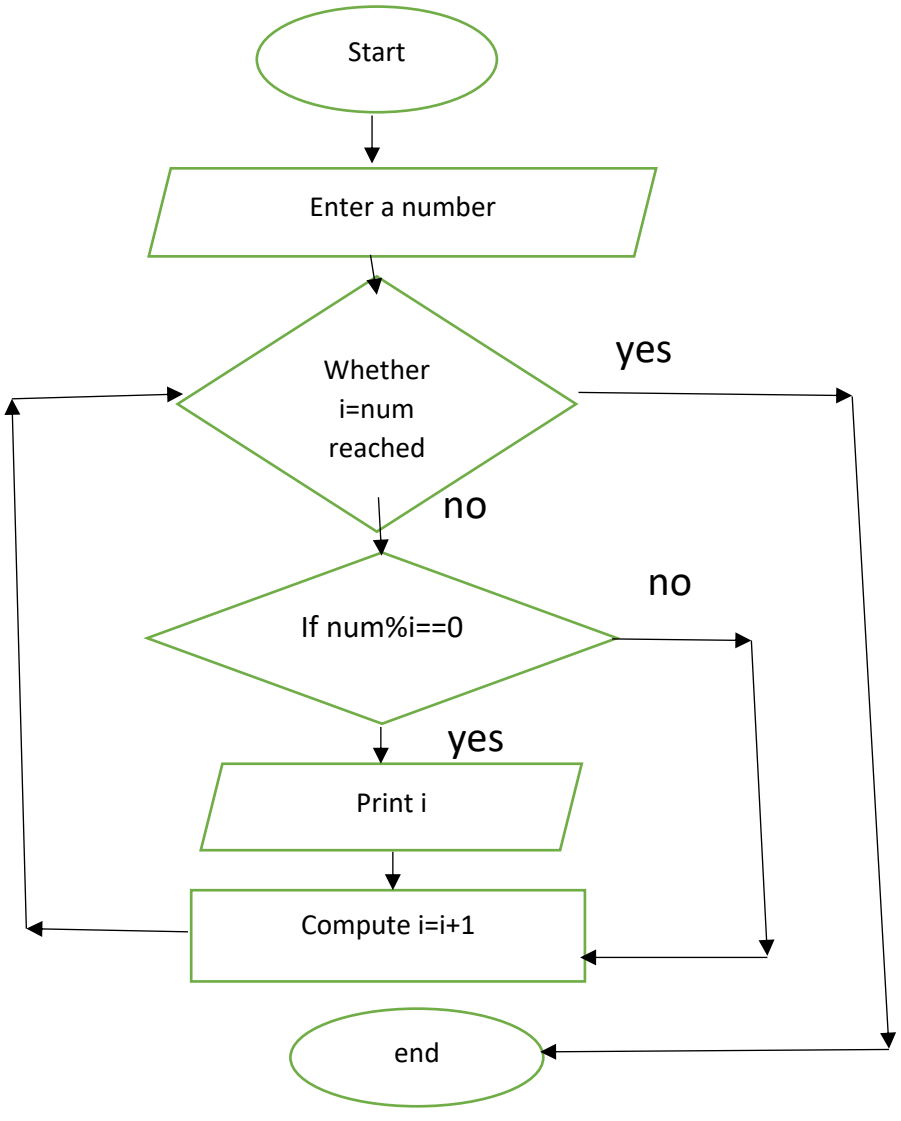
Step5:Check Input number is divisible by I or not

Step6:If the no. is divisible by I then print the value of I as a factor otherwise go to step no. 7

Step7:to increase value of I by 7

Step8:End

Flowchat:



Q10) Find the sum of the digits of give no.

Algorithm:

Step1:Start

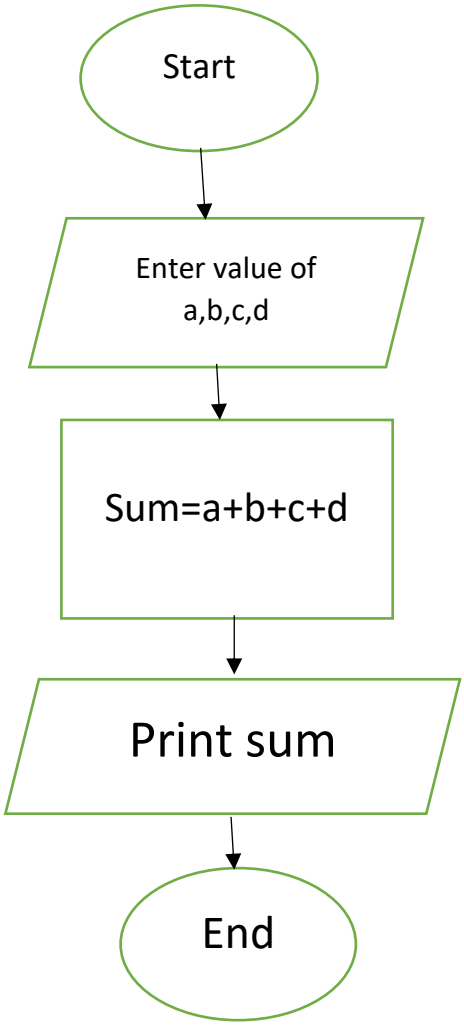
Step2: enter number say a,b,c,d.

Step3:Sum=a+b+c+d

Step4:Display sum

Step5:Stop

Flowchart:



Q11) Find smallest of 3 numbers.

Algorithm:

Step1:Start

Step2: Take three integer values a,b,c

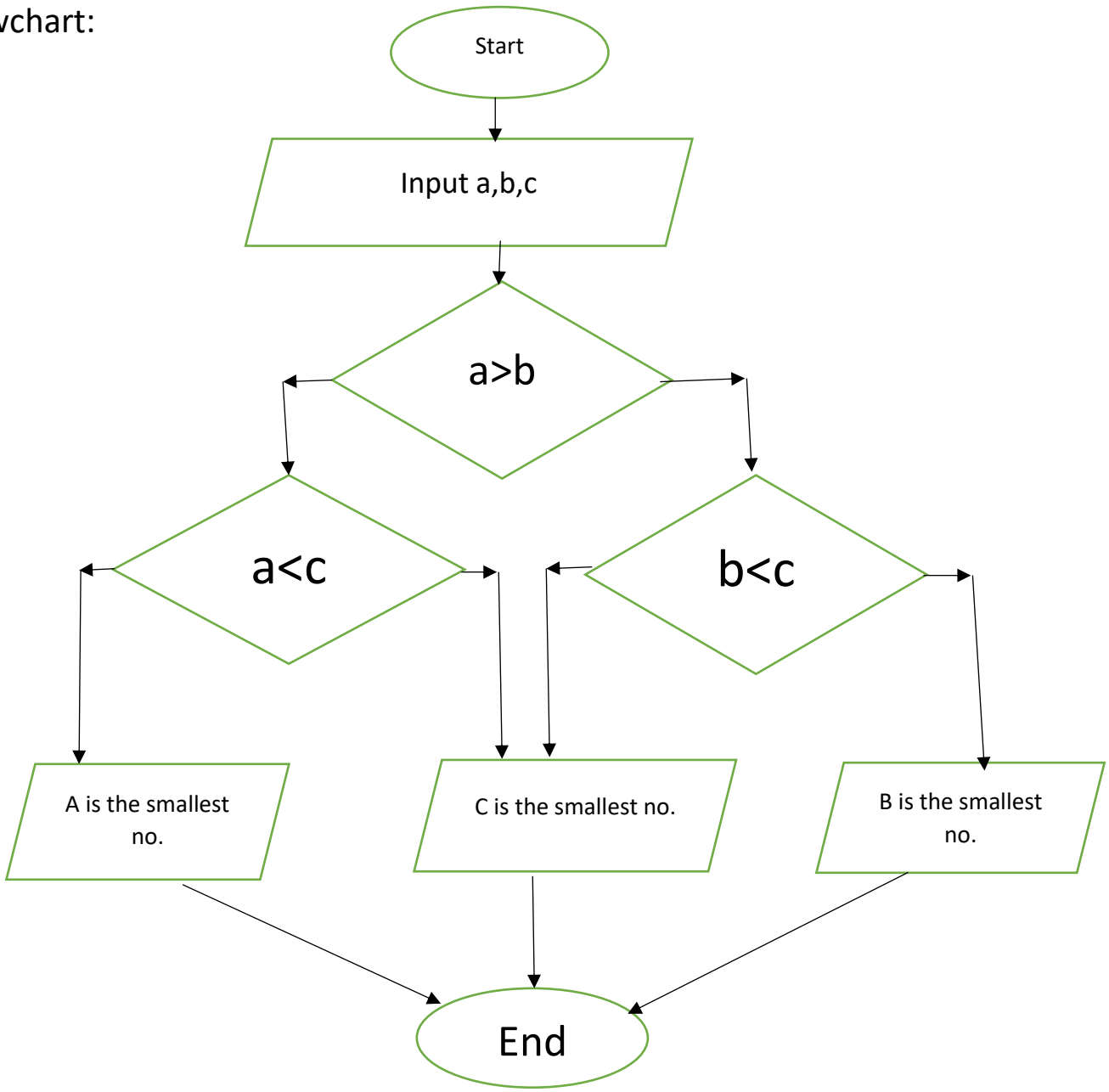
Step3:If a<b yes then check a<c yes then print “a”

Step4:If a<b no then check b<c yes then print b

Step5:If a<b no then b<c no then print “c”

Step6:End

Flowchart:



Q12)Add two no. without using arithmetic operator

Q13)algorithm and flowchart to reverse a given no.

Algorithm:

Step1:Start

Step2:enter number i.e. Num

Step3:Sum=0

Step4:Rev=Num%10

Sum=sum*10 +rev

Num=Num/10

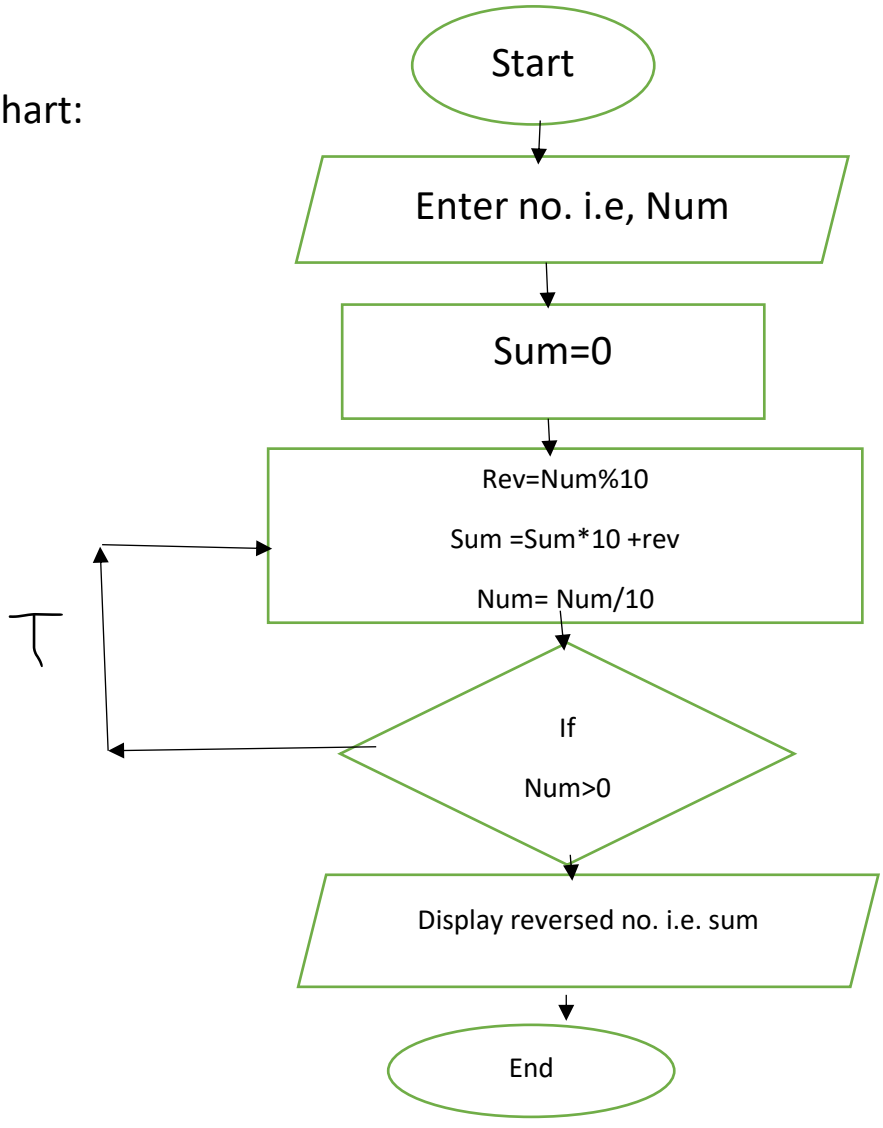
Step5:If (Num>0)then goto Step 4

Otherwise goto step 6

Step6:Display reversed no.i.e. Sum

Step7:Stop

Flowchart:



Q14)Finding GCD of two numbers.

Algorithm:

Step1:Start

Step2: declare variable n1,n2, gcd=1 ,i=1

Step3:Input n1 and n2

Step4:repeat until i<=n1 and i<=n2

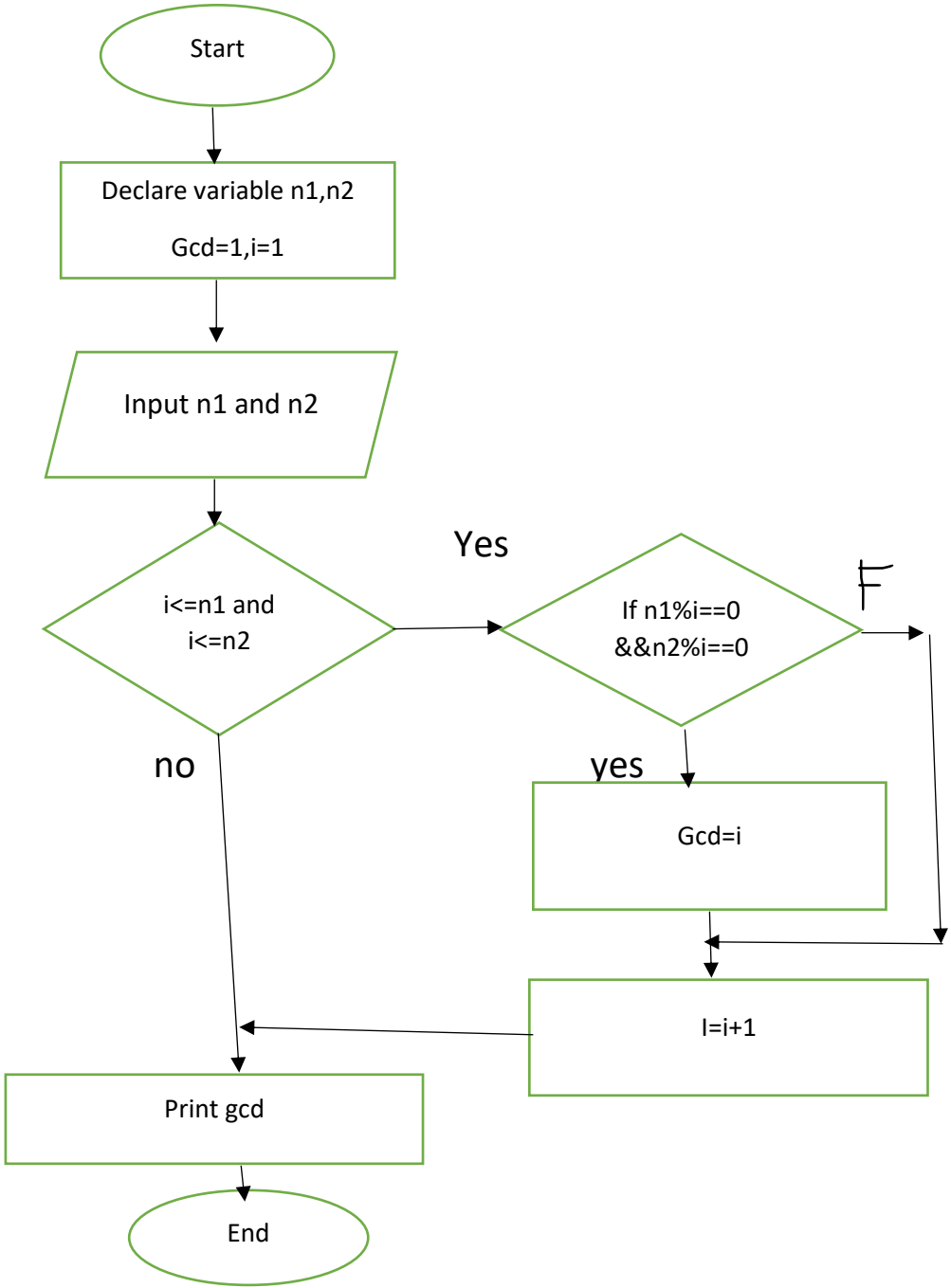
If n1%i==0 && n2%i==0

Gcd=1

Step5:Print gcd

Step6:stop

Flowchart:



Q15) LCM of two number

Algorithm:

Step1:Start

Step2:initialize two variable for num1 and Num2

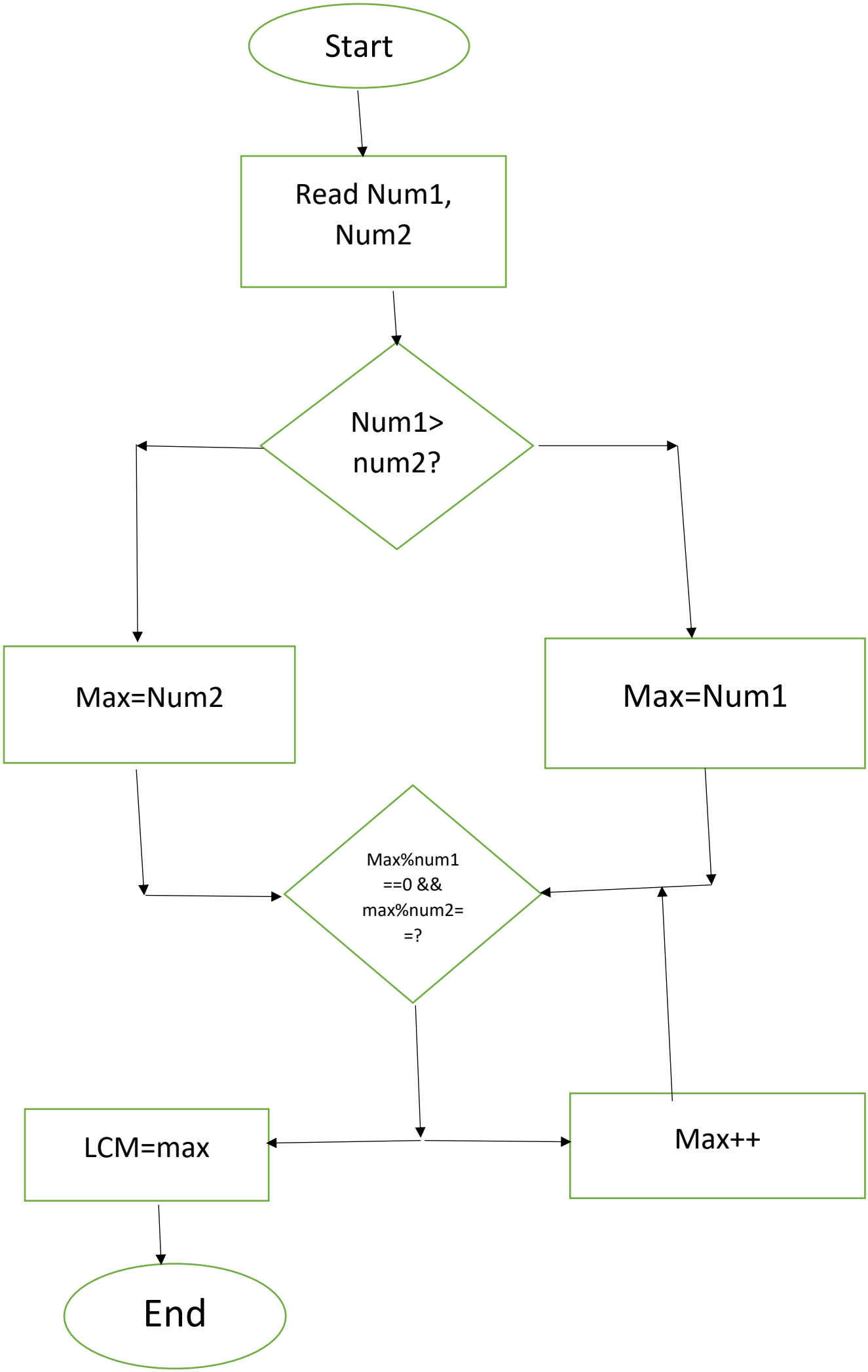
Step3:Find and store the maximum of num1 and num2 to a
Separate variable

Step4:If max is divisible by num1 and num2, max is the
LCM , hence print it.

Step5:If not divisible then increment max by1, and go to step 3
Until a number has been printed. Repeat the process
Until a max value is found which satisfies the constraints

Step6:stop

Flowchart: next pg.


Start
Read Num1, Num2
Num1> num2?
Max=Num2
Max=Num1
Max%num1 ==0 && max%num2= =?
LCM=max
Max++
End

Q16)

Q17)

Q18)

Q19) To print even no. series.

Algorithm:

Step1:Start

Step2: initialize the variable I to 1

Step3:while i<=n

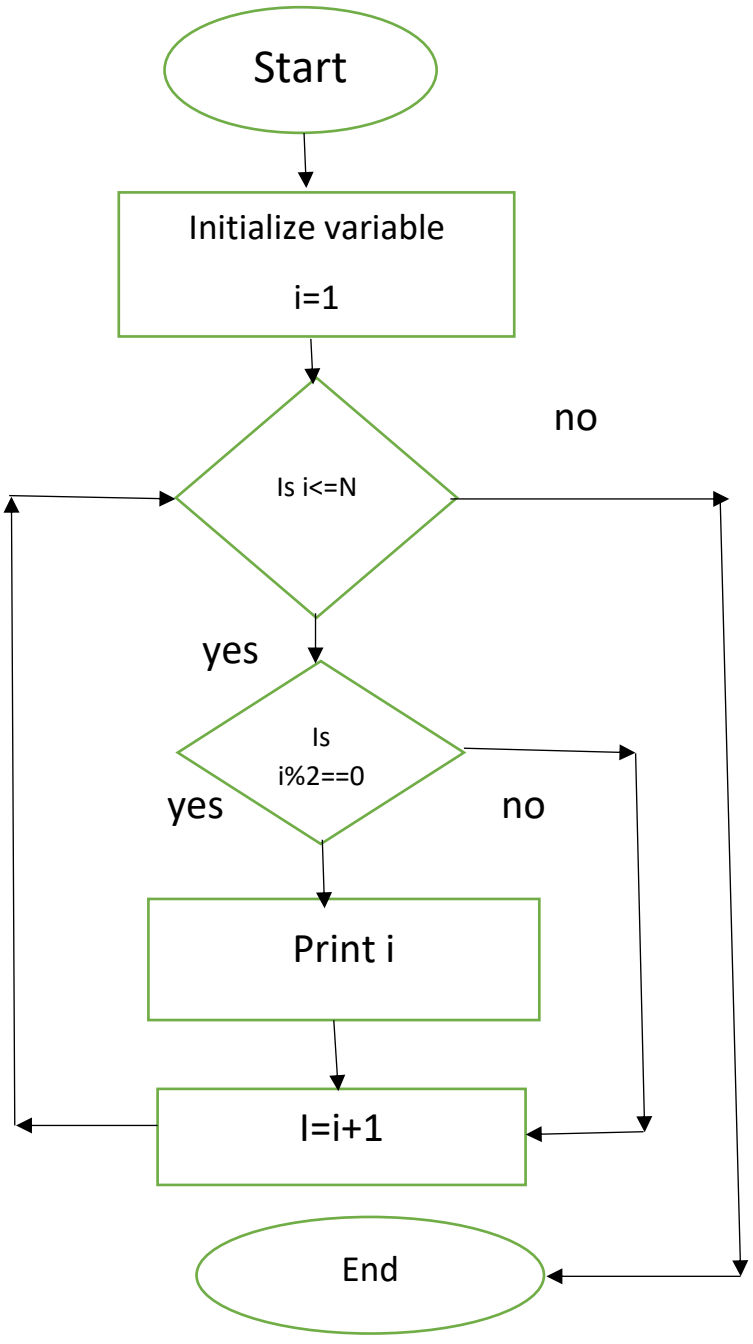
Step4:if i%==0

Step5:Print the number

Step6:Increment value of i

Step7:stop

Flowchat:



Q20) To print series of odd numbers

Algorithm:

Step1:Start

Step2:Input n

Step3:Set i=1

Step4:If i.n then goto step 8

End if

Step5:If(i%2==1)

Step6:i=i+1

Step7:Goto step 4

Step8:Stop

Flowchart:c