Ex. No.: 01 **Date:** 26.9.24

Calculate Area and Perimeter

Write an Algorithm and draw a Flowchart to Calculate the area and perimeter of a square.

Algorithm:

Step - 1 : Start

Step - 2 : Read length

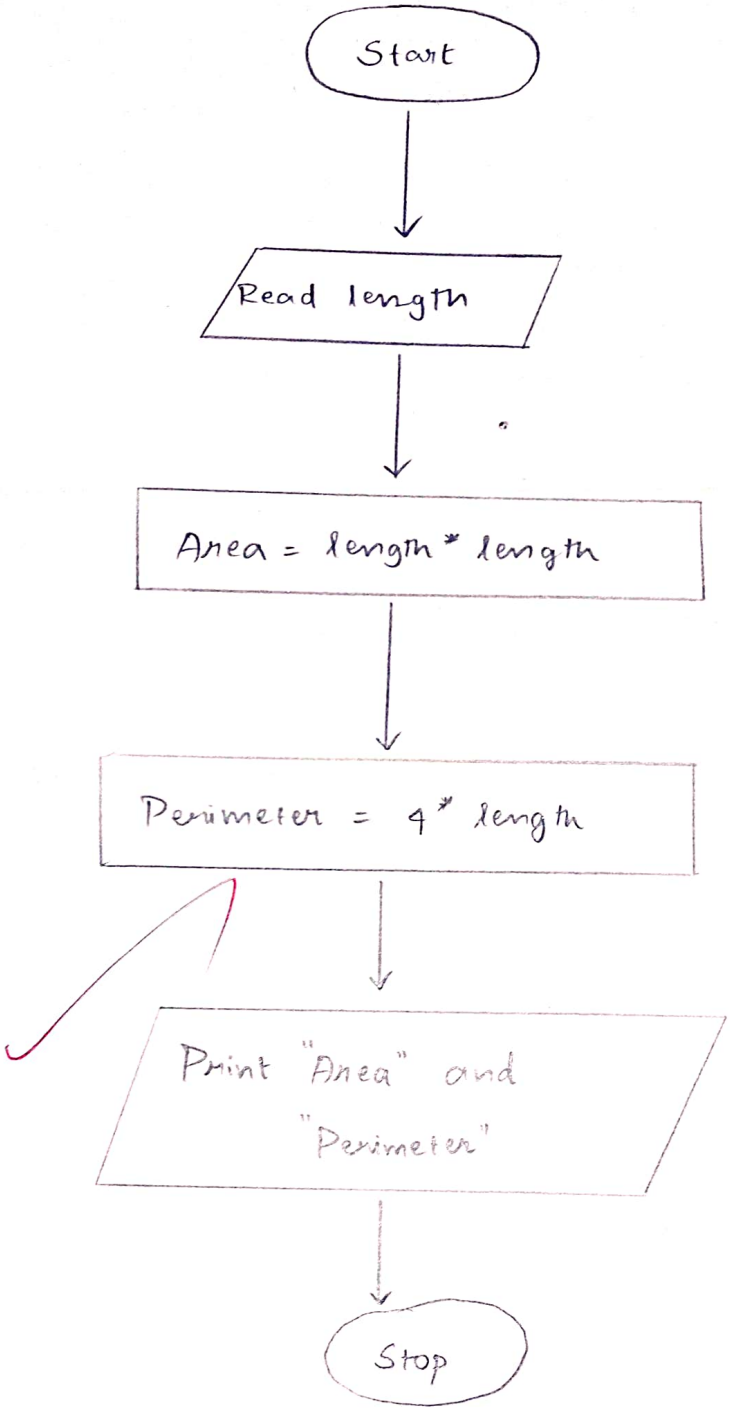
Step - 3 : Area = length * length

Step - 4 : Perimeter = 4 * length

Step - 5 : print "Area" and "perimeter"

Step - 6 : Stop.

Flowchart:


Start
Read length
Area = length * length
Perimeter = 4 * length
Print "Area" and "Perimeter"
Stop

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Ex. No.: 02 **Date:** 26.9.24

Days to Year Conversion

Write an Algorithm and draw a Flowchart to convert the given days into years & months.

Algorithm:

Step - 1 : Start

Step - 2 : Read days

Step - 3 : Initialize years = 0 and months = 0

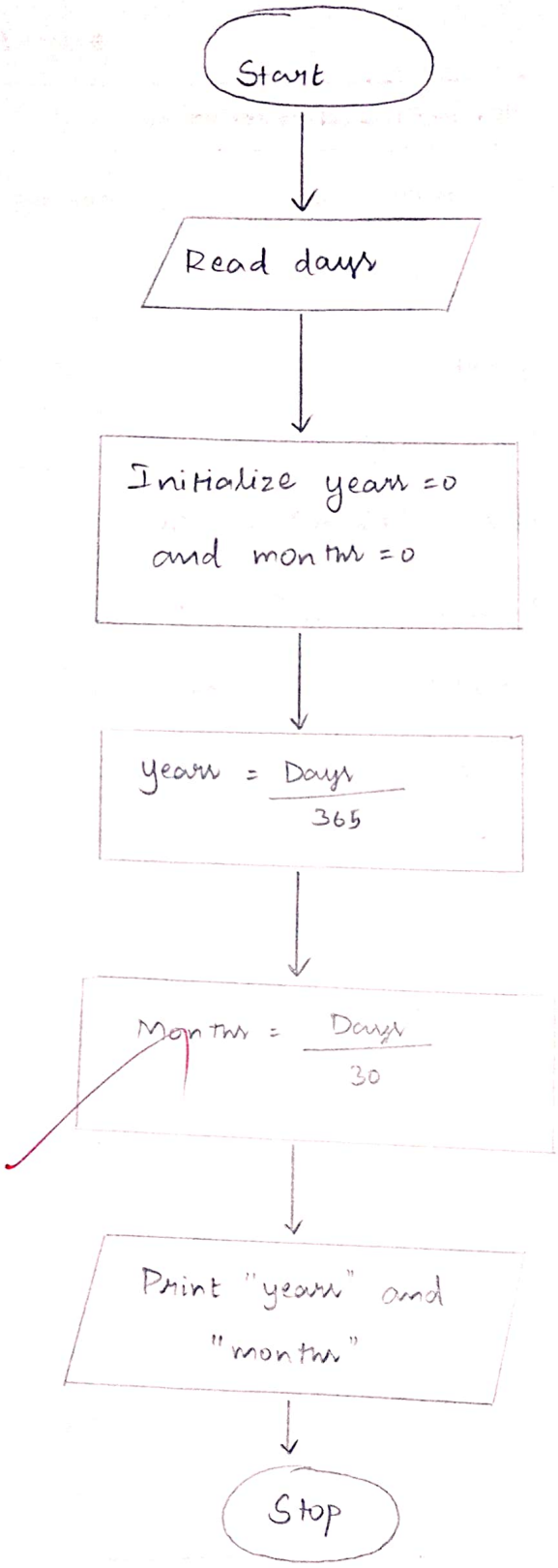
Step - 4 : years = Days / 365

Step - 5 : months = Days / 30

Flowchart:

Step - 6 : Print "years" and "months".

Step - 7 : Stop


Start
Read days
Initialize years = 0
and months = 0
years = Days / 365
Months = Days / 30
Print "years" and
"months"
Stop

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Ex. No.: 03 **Date:** 26.9.24

Prime Number

Write an Algorithm and draw a Flowchart to check whether the given number is Prime or not.

Algorithm:

Step - 1 : Start

Step - 2 : Read n

Step - 3 : Set f = 1

Step - 4 : If n = = 1 then

print "n is not prime number".

go to Step - 8.

Flowchart:

Step - 5 : For i = 2 to n - 1

Step - 6 : If n % i = = 0 then set f = 1

& break else go to Step 5.

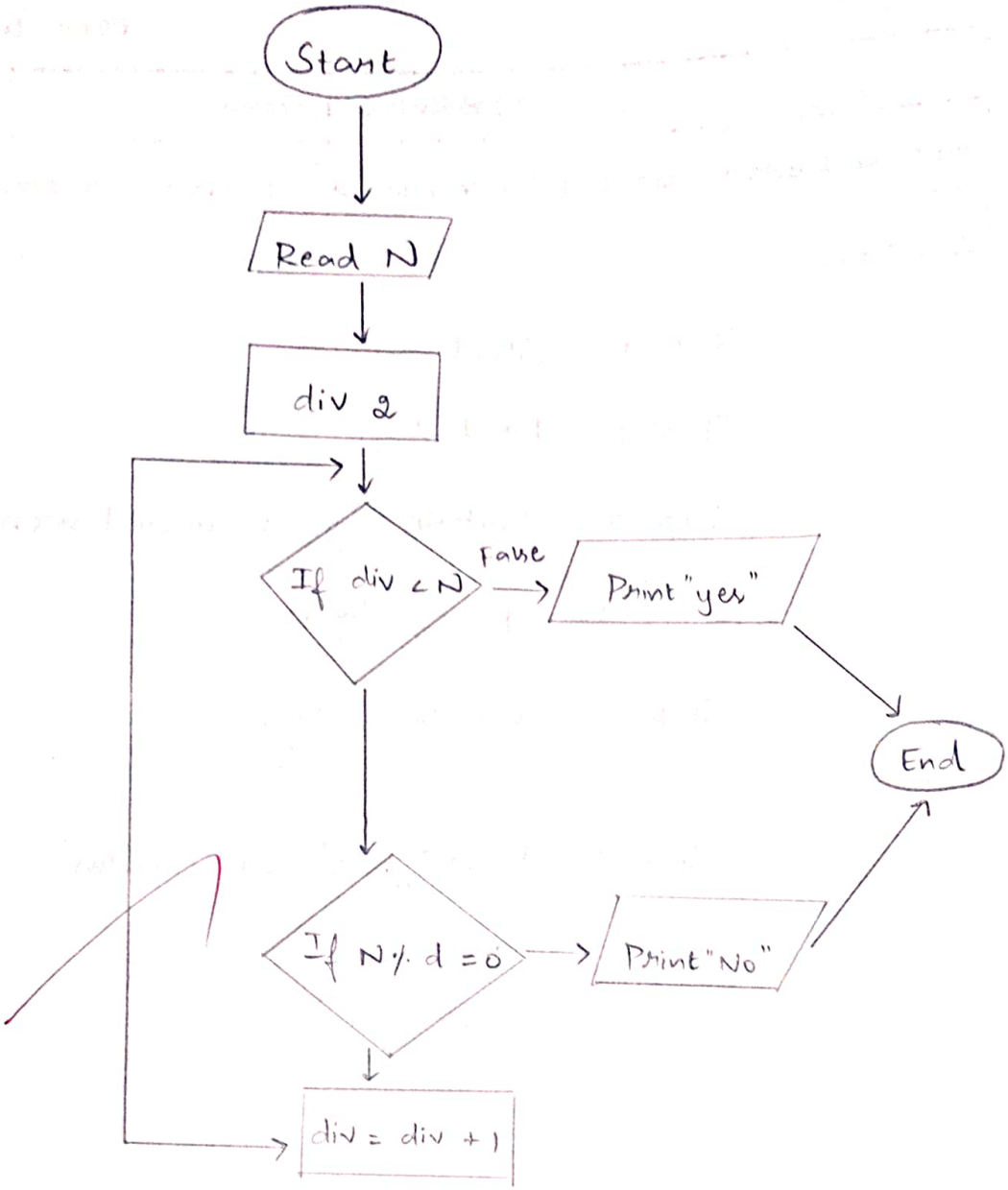
Step - 7 : If f = 1 then

Print "n is not prime number"

else

Print "n is prime number".

Step - 8 : Stop.


Start
Read N
div 2
If div < N
False
Print "yes"
End
If N % d = 0
Print "No"
div = div + 1

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Ex. No.: 04 **Date:** 28.9.24

Leap Year

Write an Algorithm and draw a Flowchart to check whether the given year is Leap year or not.

Algorithm:

Step - 1 : Start

Step - 2 : Read year rem

Step - 3 : Rem = year % 4

Step - 4 : if rem == 0

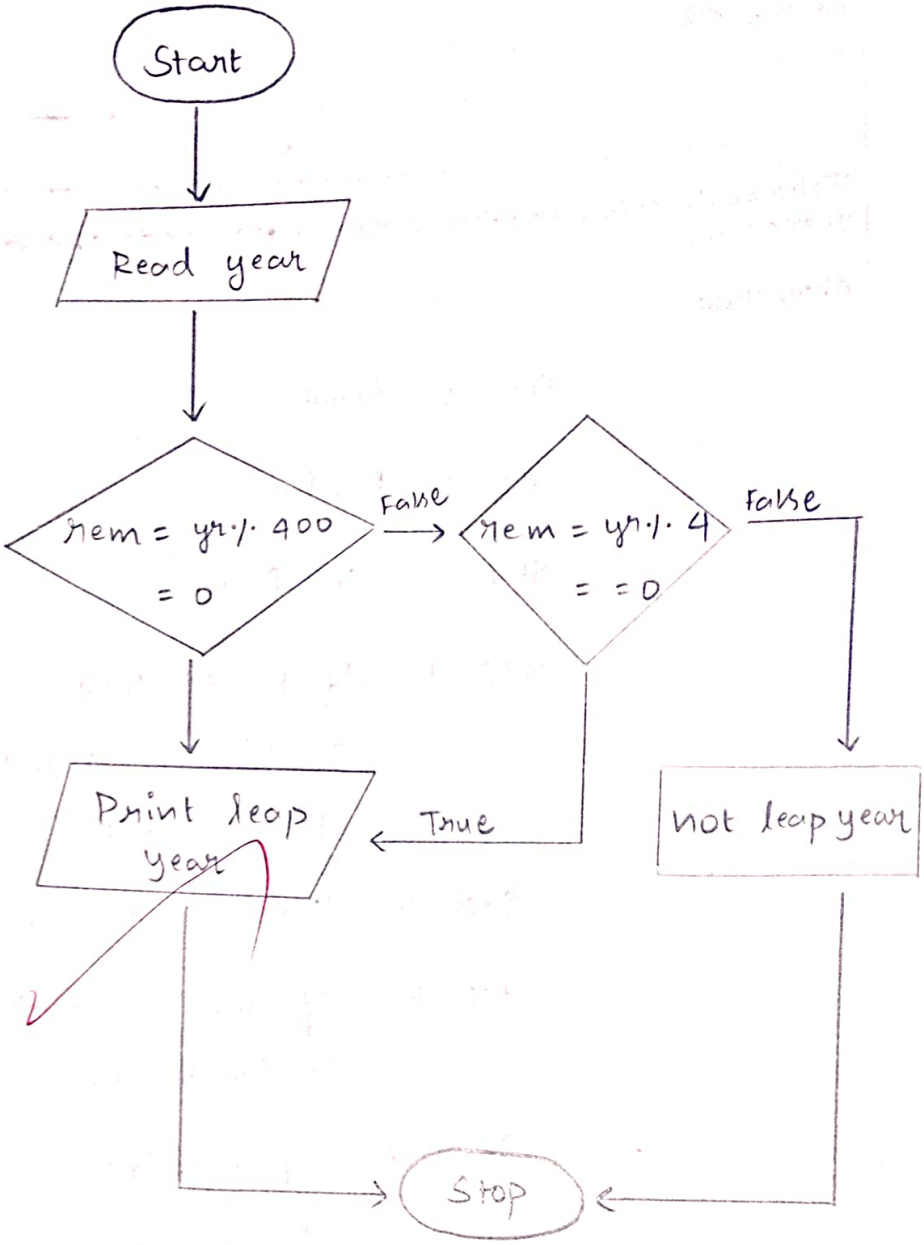
print ("Leap year")

Step - 5 : else

print ("not leap year")

Step - 6 : End.

Flowchart:


Start
Read year
rem = yr % 400
= 0
False
rem = yr % 4
= = 0
False
Print leap year
True
not leap year
STOP

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Ex. No.: 05 **Date:** 28.9.24

Palindrome Number

Write an Algorithm and draw a Flowchart to check whether the given number is palindrome number or not.

Algorithm:

Step-1 : Start

Step-2 : Read from user

Step-3 : Step p=0, a=n

Step-4 : Check whether n>0, go to Step-5 else go to Step 7

Step-5 : p = (p*10) + (n%.10)

Step-6 : $n = \frac{n}{10}$, go to Step-4

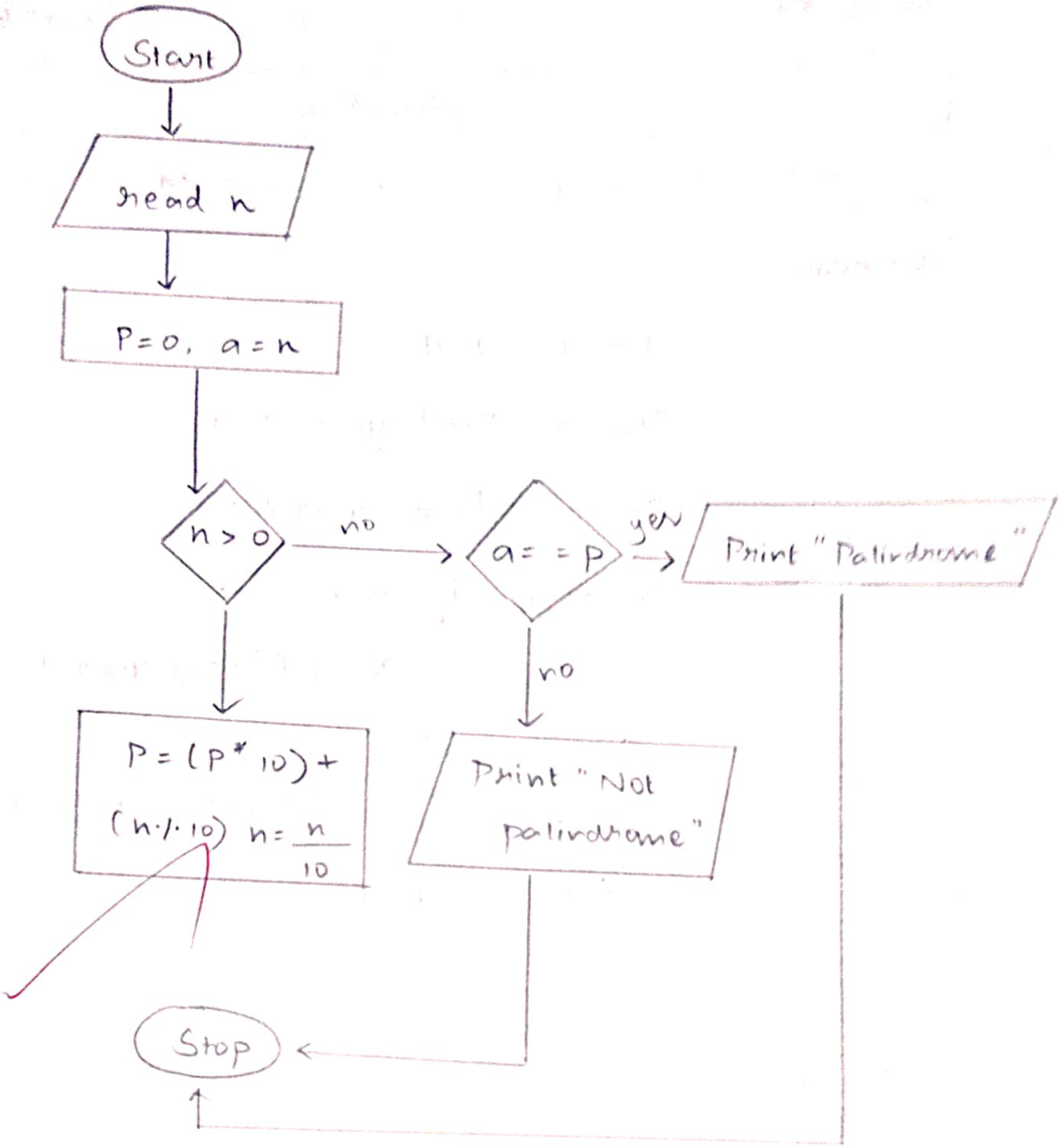
Step-7 : Check whether a==p, true go to Step-8 else go to Step-9.

Step-8 : Print "Palindrome" go to Step-10

Step-9 : Print "not palindrome"

Step-10 : End

Flowchart:


Start
read n
P=0, a=n
n > 0
no
a = = p
yes
Print "Palindrome"
no
P = (P * 10) +
(n % 10) n = n/10
Print "Not palindrome"
Stop

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Ex. No.: 06 **Date:** 28.9.24

Sum of Digits

Write an Algorithm and draw a Flowchart to calculate the sum of digits in the given number.

Algorithm:

Step - 1 : Start

Step - 2 : Get 'n' from the user

Step - 3 : Initialize Sum is equal to Zero.

Step - 4 : Check n > 0 true go to Step 5
else go to Step 6.

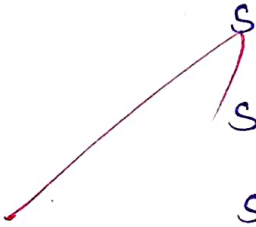
Step 5 : Sum = Sum + (n % 10)

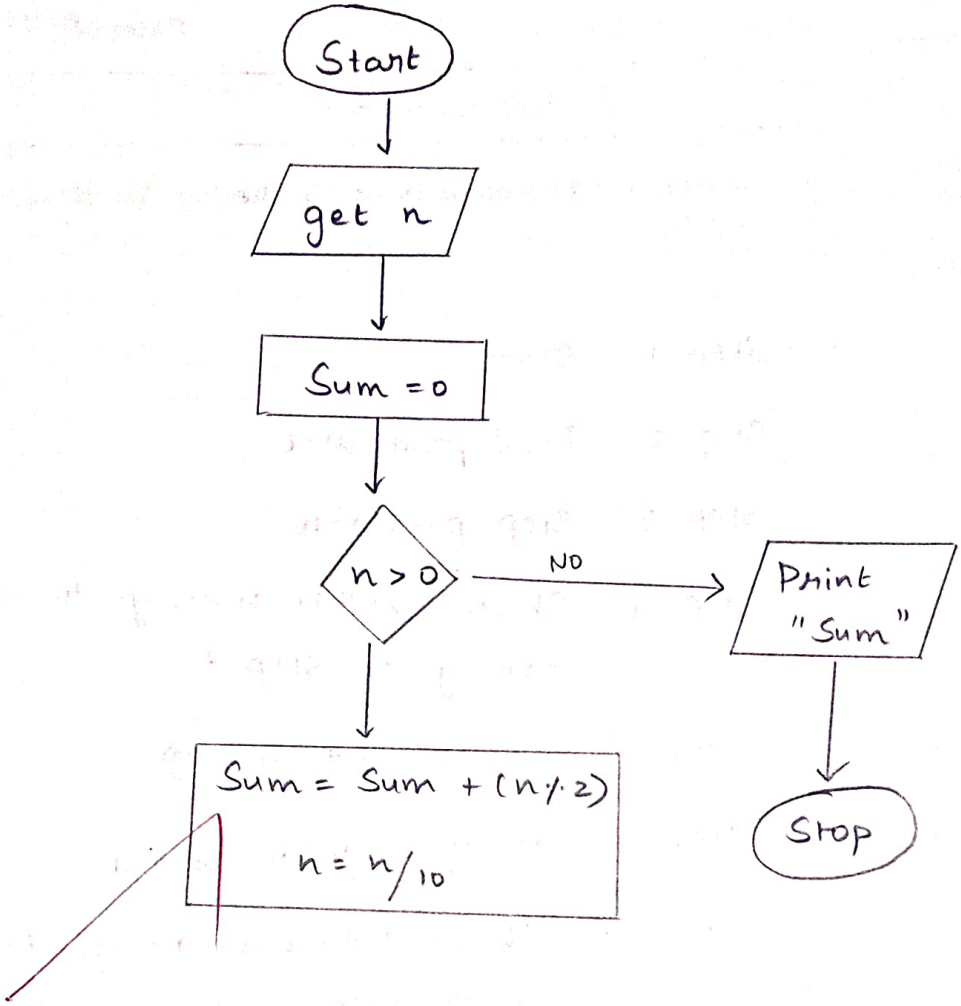
Step 6 : $n = \frac{n}{10}$, go to Step 4

Step 7 : Print "Sum"

Step 8 : Stop.

Flowchart:




Start
get n
Sum = 0
n > 0
NO
Print "Sum"
Sum = Sum + (n % 2)
n = n / 10
Stop