Ex. No.: 1 **Date:** 25/10/24

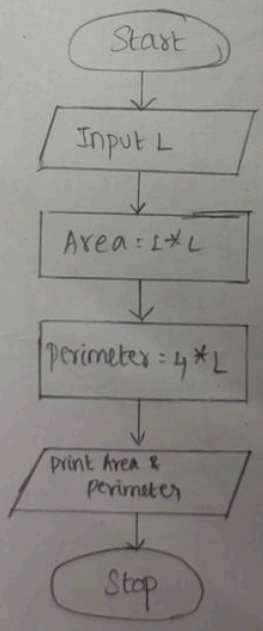
Calculate Area and Perimeter

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

Algorithm:

Step 1 - Start
Step 2 - Input length (L)
Step 3 - Area A = L*L
Step 4 - Calculate perimeter P = 4*L
Step 5 - print Area and perimeter
Step 6 - Stop

Flowchart:



Ex. No.: IV **Date:** 25/10/24

Leap Year

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

Algorithm:

Step-1 : Start

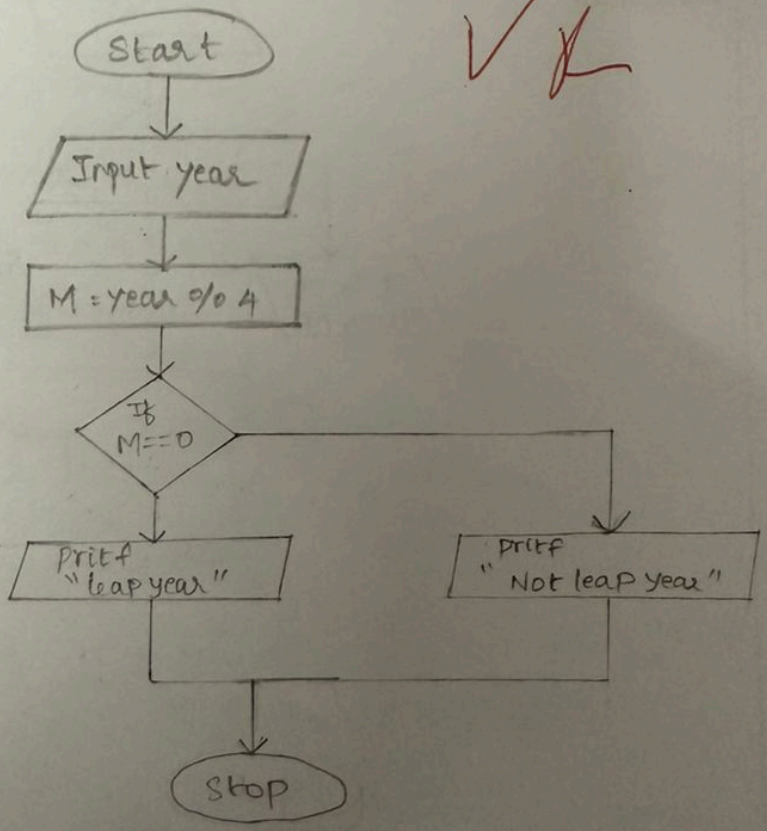
Step-2 : Input year(M)

step 3 : check if year %4 == 0 , then print It is leapyear . Go to Step 4

step 4- Display it is not leap year.

step 5- stop

Flowchart:



Ex. No.: VI **Date:** 25/10/24

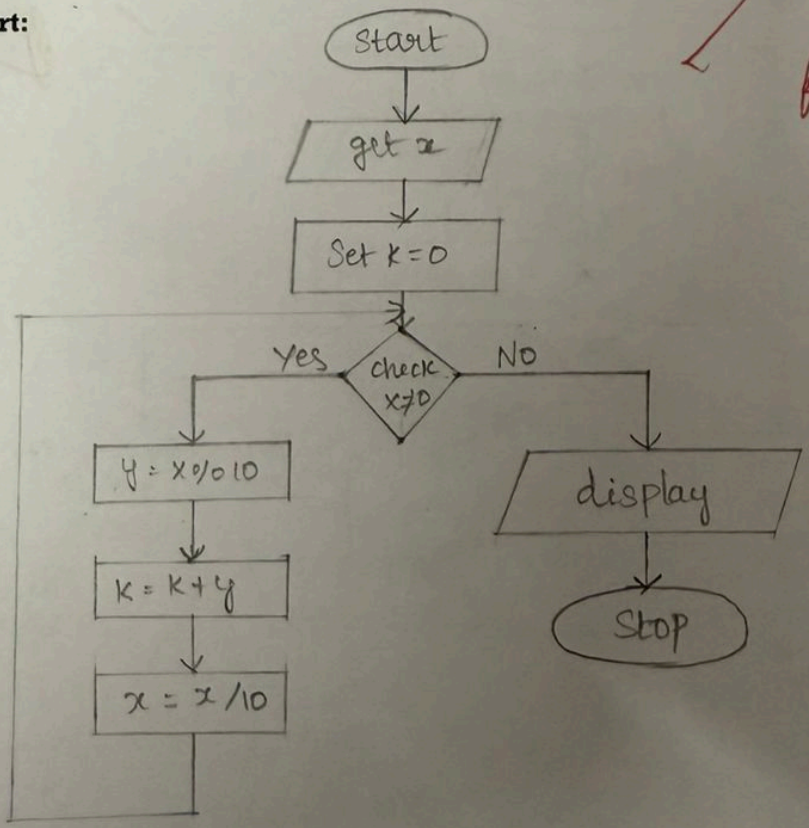
Sum of Digits

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

Algorithm:

Step-1: Start
Step2 : Get the number from the user as x
Step3 : Set k=0
Step4 : check whether x is not equal to 0, go to Step 8
Step5 : compute y = x%10
Step6 : k = k+y
Step7 : compute x = x/10 , go to step 4
Step8 : display k
Step 9 : Stop

Flowchart:



Ex. No.: V **Date:** 25/10/24

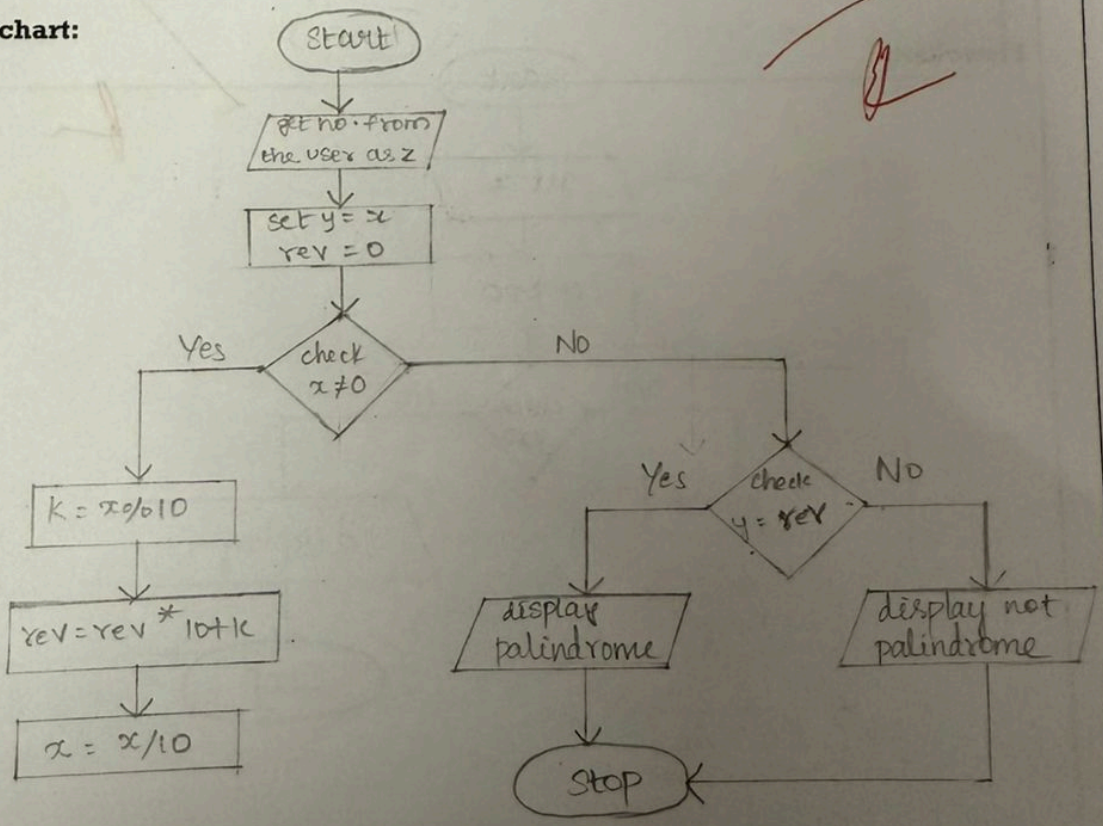
Palindrome Number

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

Algorithm:

Step1 - Start
Step2 - Get a number from user as z
Step3 - set x=z ; rev=0
Step4 - check whether x is not equal to 0, otherwise go to step8.
Step5 - Compute k=z%10
Step6 - rev= rev*10+k
Step7 - z=z/10, go to 4
Step8 - check whether y==rev, otherwise go to step 10
Step9 - display given number is ~~not~~ palindrome, go to step 11.
Step10 - display given number is not palindrome.
Step11 - Stop

Flowchart:



Ex. No.: III **Date:** 25/10/24

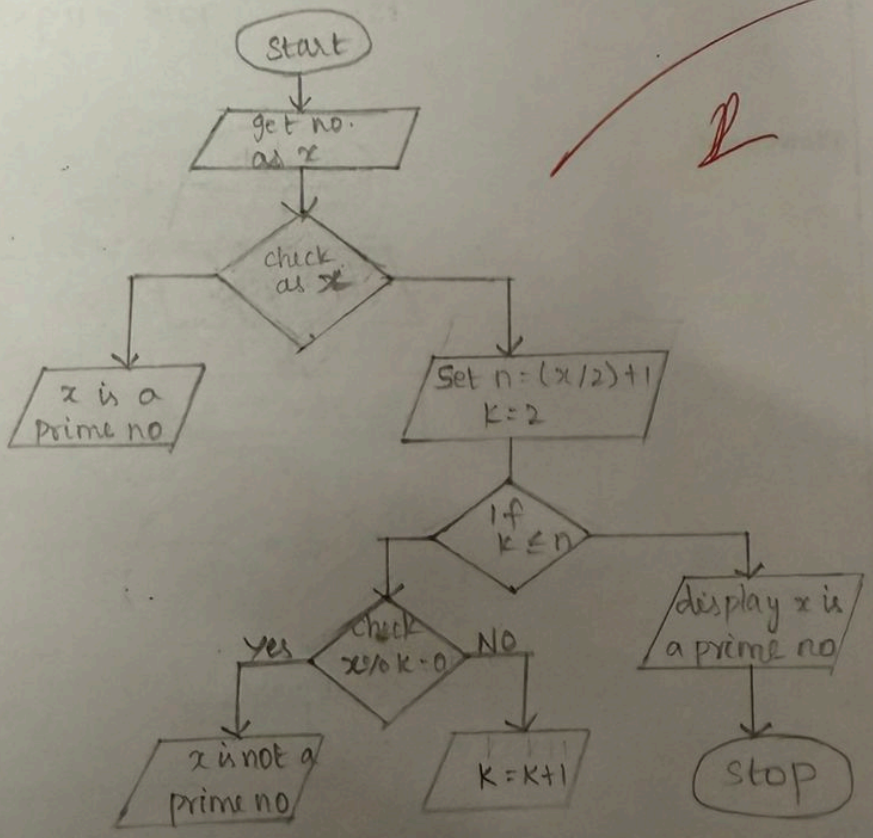
Prime Number

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

Algorithm:

Step1 - Start
Step2 - Get a Number from the user as x
Step3 - check whether x <= 1, otherwise go to 5.
Step4 - if<=num Display n is not a prime number.
Step5 - Set n=(x/2)+1, K=2
Step6 - If K<=n otherwise go to Step 10.
Step7 - check x%0 K=0, otherwise go to step 9
Step8 - Display n is not a prime number, go to
Step9 - K=K+1, go to step 6
Step10 - display x is prime number
Step11 - Stop

Flowchart:



Ex. No.: 11 **Date:** 25/10/24

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 - get the number of days from the user as x
Step 3 - To calculate the number of years; years $\frac{x}{365}$
Step 4 - To calculate $\%$ x to get remaining days
Step 5 - To calculate the remaining days together numbers of months $\frac{\%x}{30}$
Step 6 - print numbers of years & numbers of months
Step 7 - Stop

Flowchart: