Algorithm & Flowchart

Ex. No.: 1 **Date:** 26/9/24

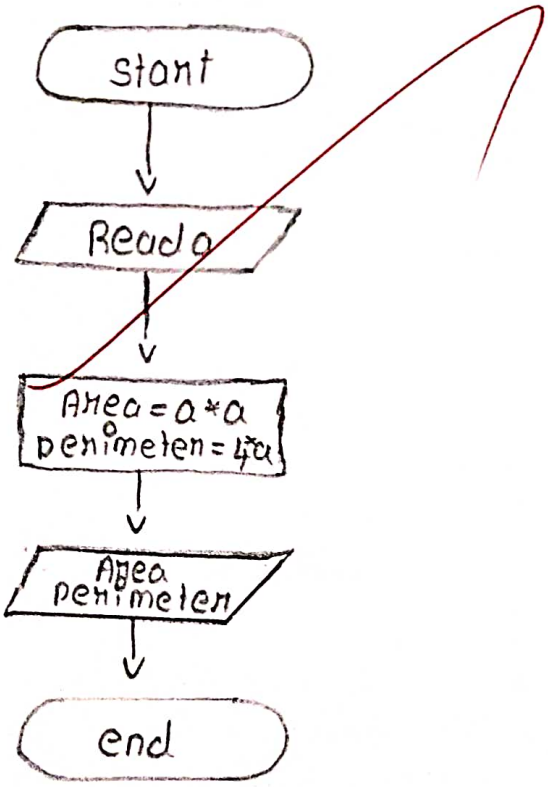
Calculate Area and Perimeter

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

Algorithm:

STEP1:- start
STEP2: Read a
STEP3: Area = a*a , perimeter = 4*a
STEP4: print "Area & perimeter"
STEP5: stop

Flowchart:



Ex. No.: 2

Date: 26/09/24

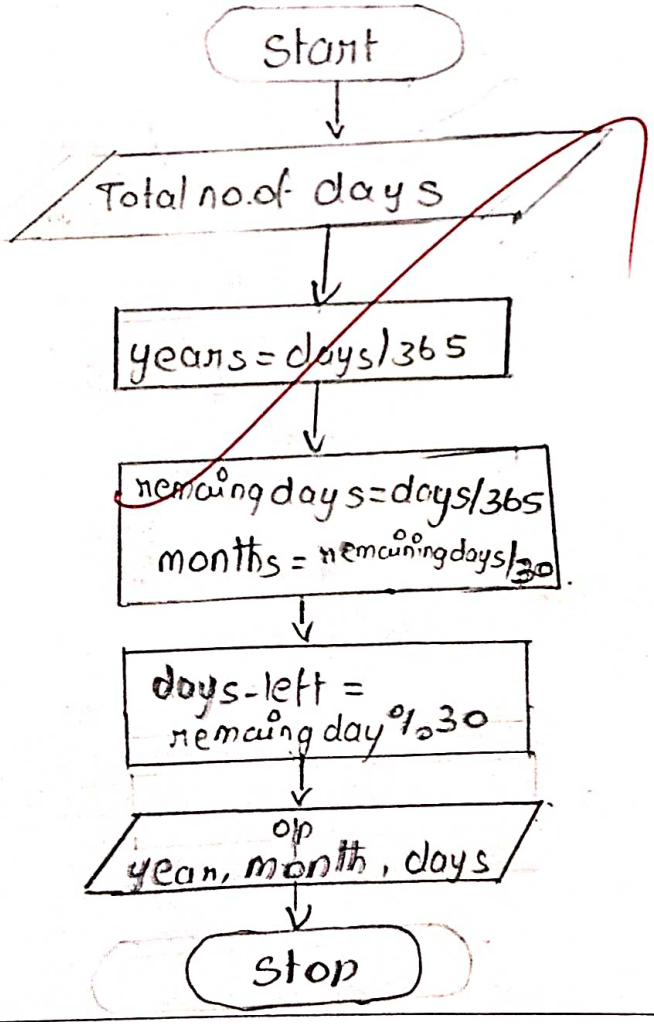
Days to Year Conversion

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

Algorithm:

STEP1 : Start
STEP2 : Input no.of days
STEP3 : Calculate the no.of years years = days//365
STEP4 : Calculate the remaining days after calculating years. remaining days = days % 365
STEP5: calculate the remaining days
months = remaining days/30
STEP6: calculate the remaining days after calculating months days_left = remaining -days%30
STEP7: output the years, months, days left
STEP8 : End

Flowchart:



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Ex. No.: 3 Date: 26/09/2024

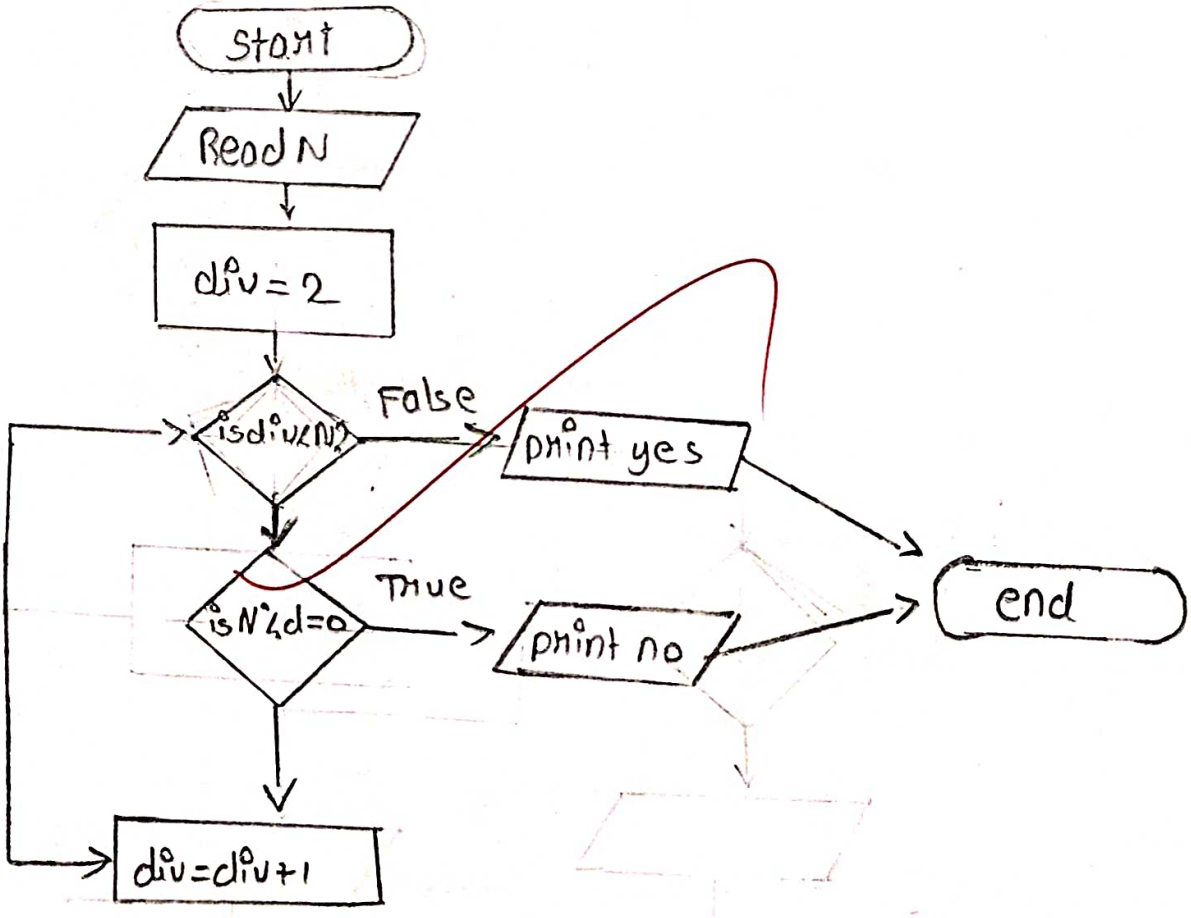
Prime Number

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

Algorithm:

STEP1: Start
STEP2: Read n
STEP3: set f=1
STEP4: if n==1 then print("n is not a prime number")
go to step 8
STEP5: for i=2 to n-1
STEP6: if n%i==0 then set f=1 & break
else go to step 5
STEP7: if f==1 then print("n is not a prime number")
else
print("n is a prime number")
STEP8: Stop

Flowchart:



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Ex. No.: 4 Date: 28/09/2024

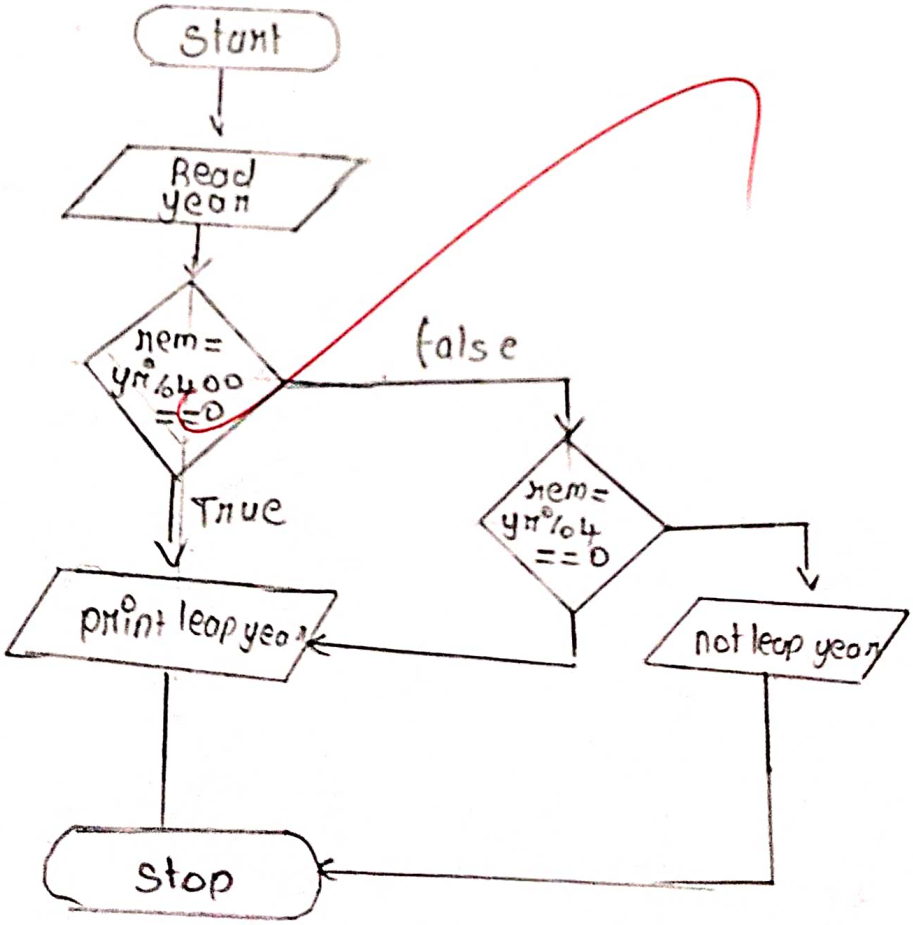
Leap Year

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

Algorithm:

STEP1: start
STEP2: Read year rem
STEP3: rem = year%400
STEP4: if rem == 0 print("Leap year)
STEP5: if rem = year%4==0 print("Leap year)
STEP6: else print("Not a leap year)
STEP7: End

Flowchart:



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Ex. No.: 5 **Date:** 28/9/2024

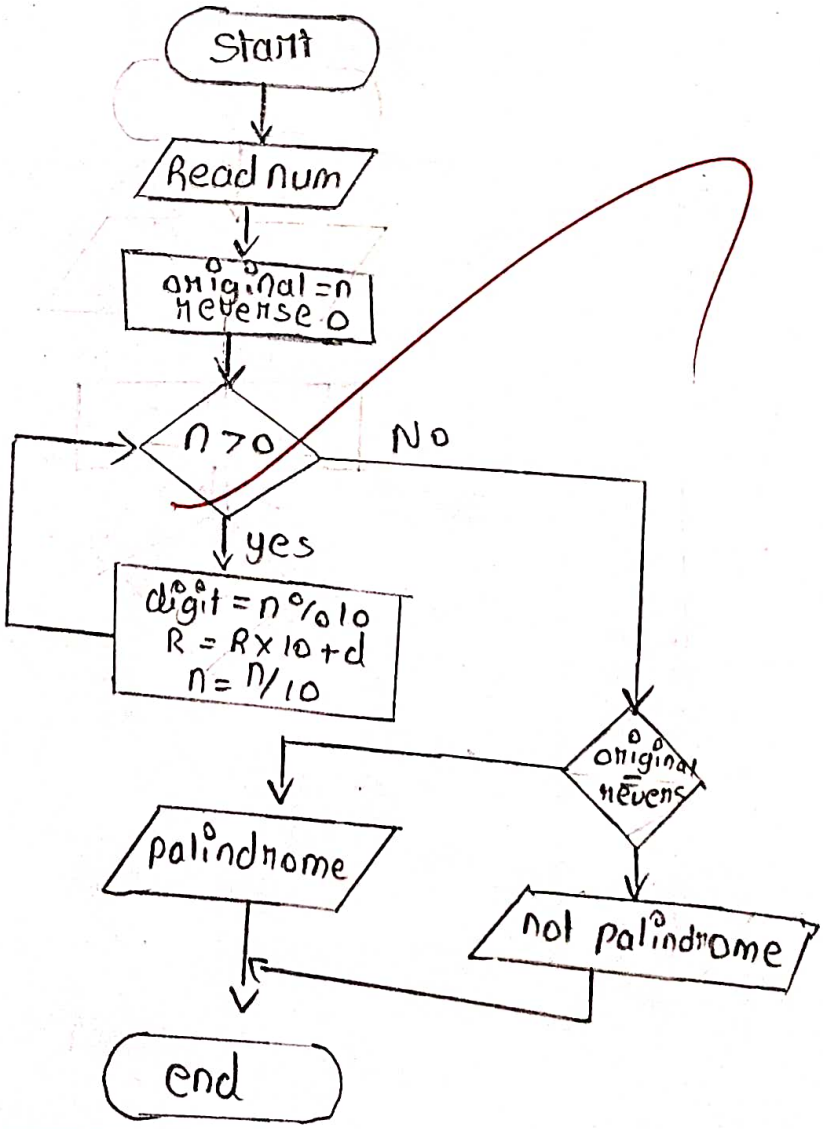
Palindrome Number

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

Algorithm:

STEP1: start
STEP2: Read the number n
STEP3: initialize:
set original = n reversed = 0
STEP4: while n > 0
* set digit = n mod 10 * update reversed = reversed x 10 + digit * update n = n // 10
STEP5: if original = reversed print("palindrome")
STEP6: else print("not palindrome")
STEP7: End

Flowchart:



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Ex. No.: 6 **Date:** 28/9/2024

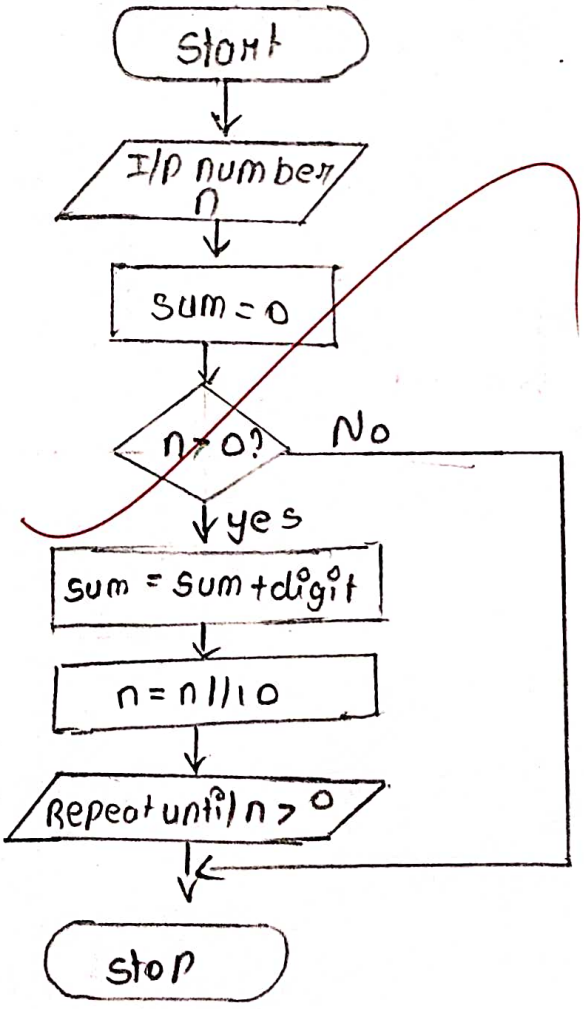
Sum of Digits

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

Algorithm:

STEP1 : Start
STEP2 : Get 'n' from the user
STEP3: Initialise the sum is equal to zero
STEP4: check n>0 true go to steps else go to step6
STEP5: sum = sum + (n%10)
STEP6: n = n/10 , go to step 4
STEP7: print ("sum")
STEP8: end

Flowchart:



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