Ex. No.: 1 Date: 27/9/24

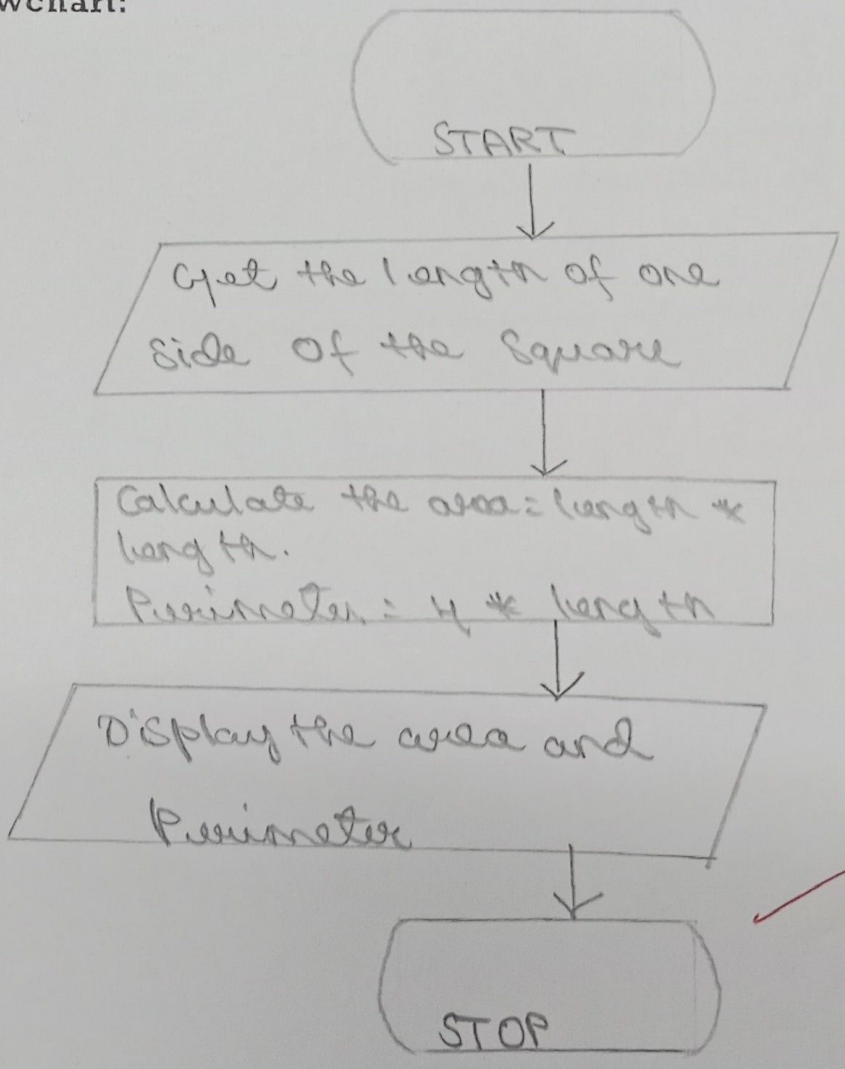
Calculate Area and Perimeter

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

Algorithm:

Step 1 : Start the program
Step 2 : Get the length of one side of the Square
Step 3 : Calculate the area = length * length
perimeter = 4 * length
Step 4 : Display the area and perimeter
Step 5 : stop the program

Flowchart:



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Ex. No.: 2

Date: 27/9/24

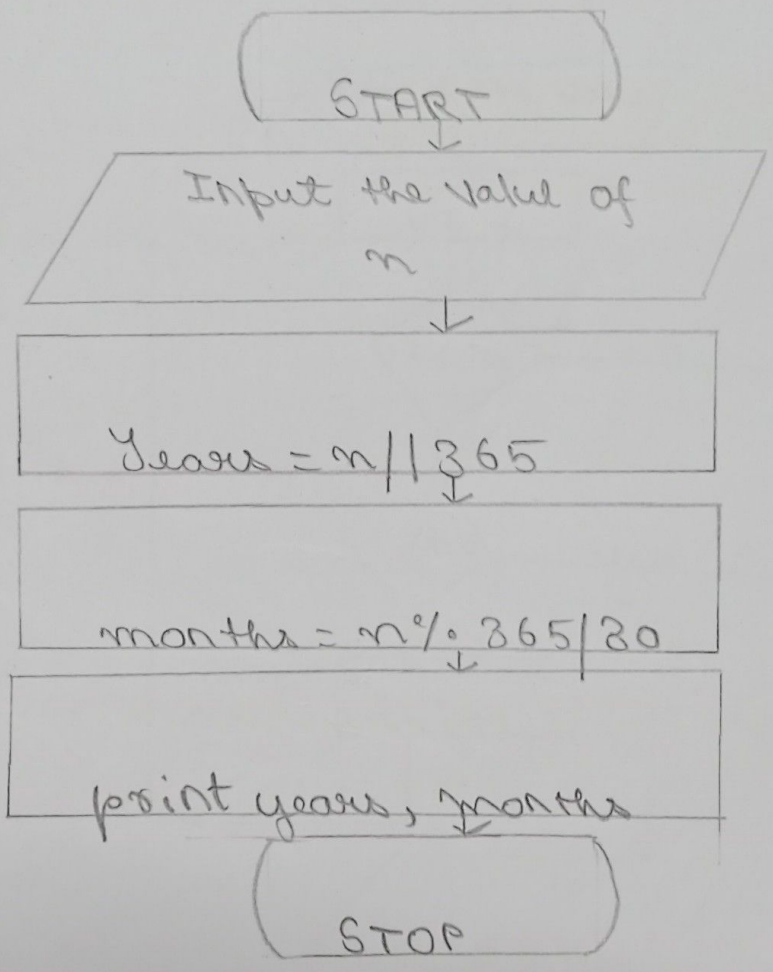
Days to Year Conversion

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

Algorithm:

Step 1 : Start the program
Step 2 : Get the value of n for no. of days
Step 3 : Print years as n//365
Step 4 : Print month as (n%.365)/30
Step 5 : Stop the program

Flowchart:



Ex. No.: 3

Date: 18/10/24

Prime Number

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

Algorithm:

Step 1: Start the program

Step 2: Get the value n for the number to check

Step 3: check if $n > 1$

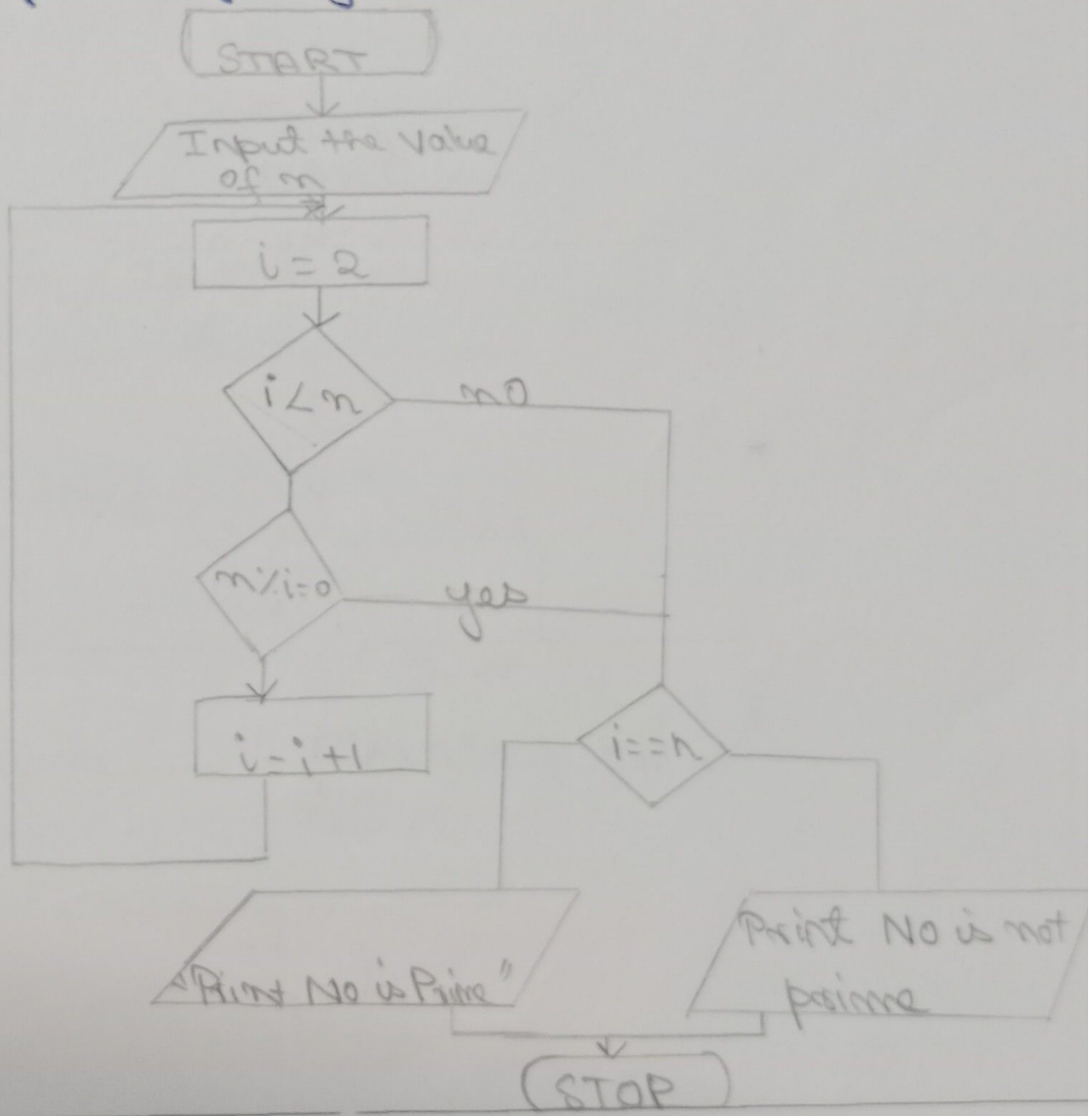
Step 4: Iterate the loop i) from 2 to number

Step 5: check if $n \% i = 0$; if true, the number is not Prime.

Step 6: If $n \% i \neq 0$, the number is prime

Step 7: Stop the program.

Flowchart:



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Ex. No.: 4

Date: 18/10/24

Leap Year

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

Algorithm:

Step 1: Start the program

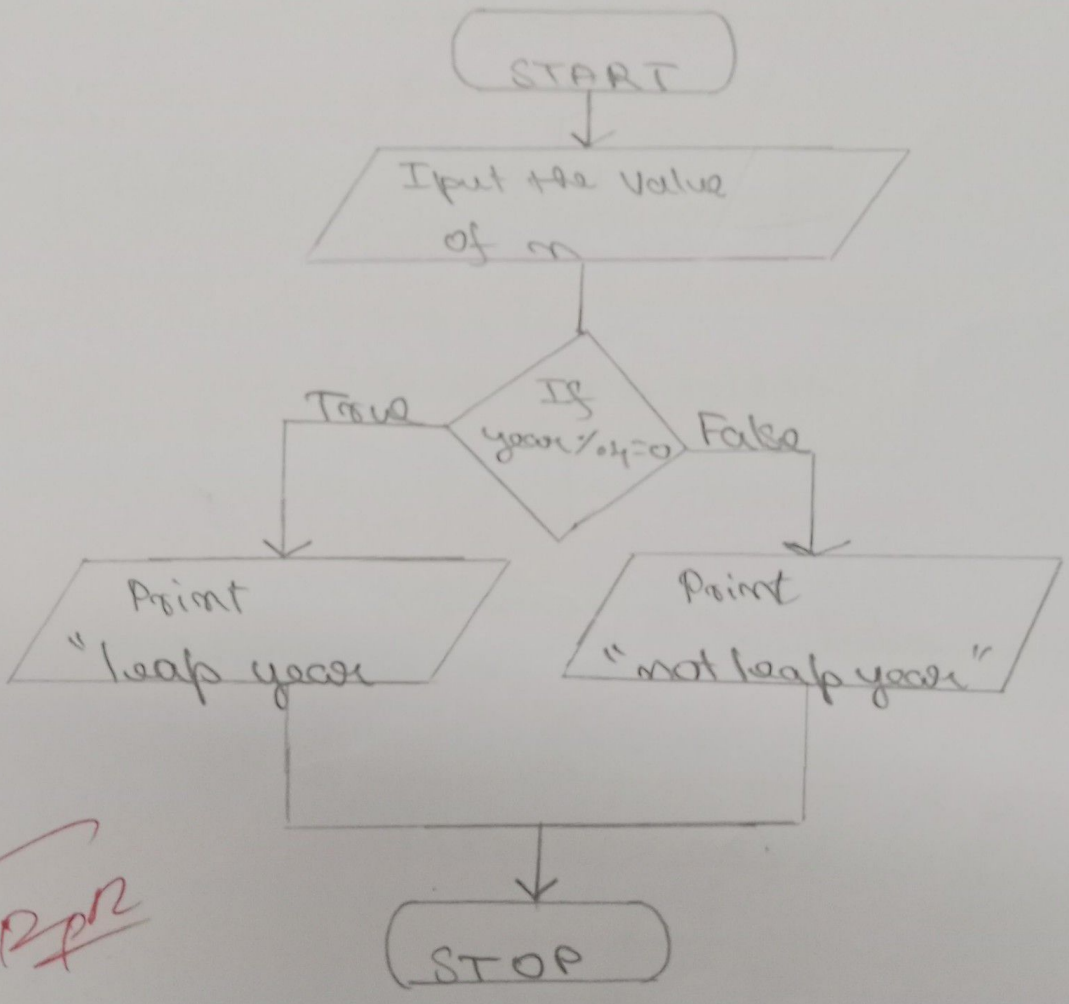
Step 2: Get the value (n) for the year to check

Step 3: Check if n%.4==0 and n%.100!=0 (or) n%.400==0

Step 4: If Step 3 is true → then the given year is a leap year, else it is not a leap year.

Step 5: Stop the program.

Flowchart:



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Ex. No.: 5 Date: 18/10/24

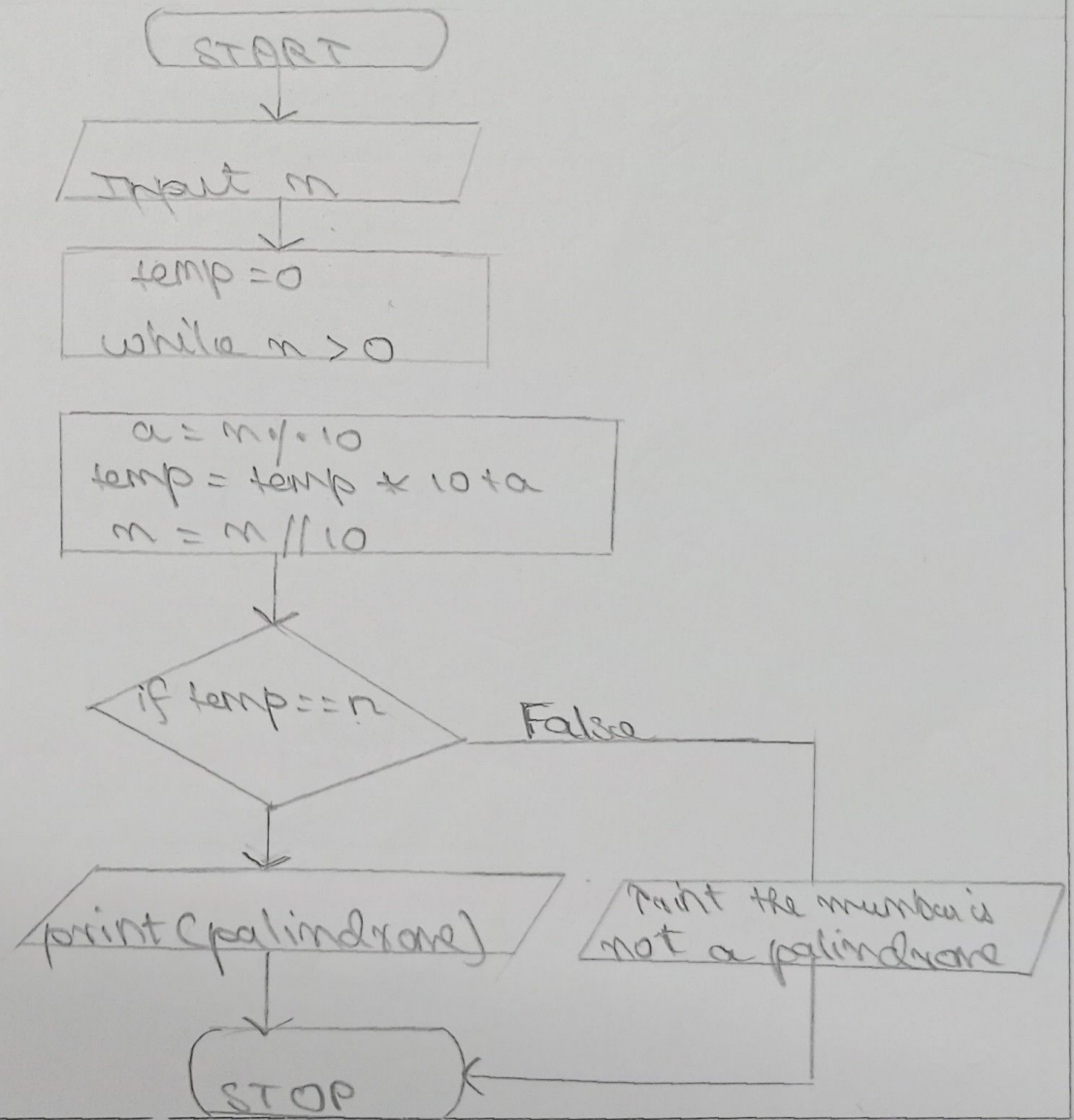
Palindrome Number

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

Algorithm:

Step 1: Start the program
Step 2: Read n
Step 3: Initialise temp = n
Step 4: a = n % 10 is a loop which checks if n > 0
Step 5: rev = rev * 10 + a
Step 6: n = n // 10
Step 7: If (n > 0) then go to step 4 to 6 else go to Step 8.
Step 8: If (temp = rev) then print "palindrome no" else print n "not palindrome no"
Step 9: Stop the program.

Flowchart:



Ex. No.: 6

Date: 18/10/24

Sum of Digits

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

Algorithm:

Step 1: Start the program

Step 2: Read n

Step 3: Initialise Sum = 0

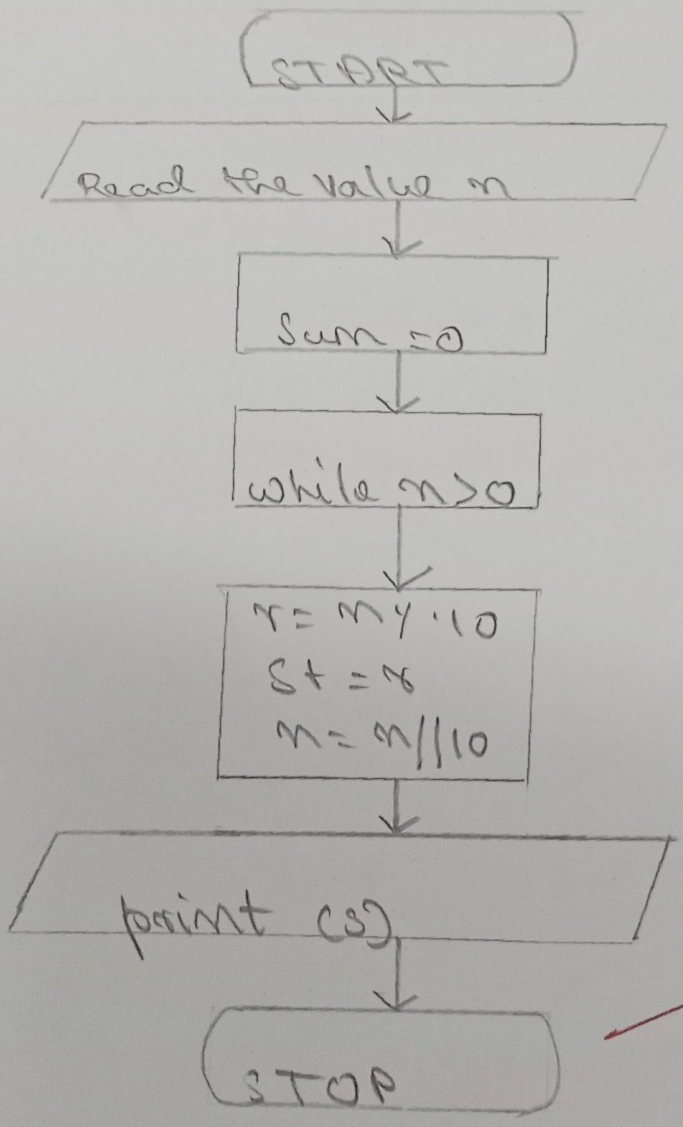
Step 4: remainder = n % 10
Sum = Sum + remainder
n = n / 10

Step 5: If (n > 0) go to Step 4 else go to Step 6

Step 6: print Sum

Step 7: Stop the program.

Flowchart:



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