

Ex. No.: 1

Date: 3/10/2024

Calculate Area and Perimeter

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

Algorithm:

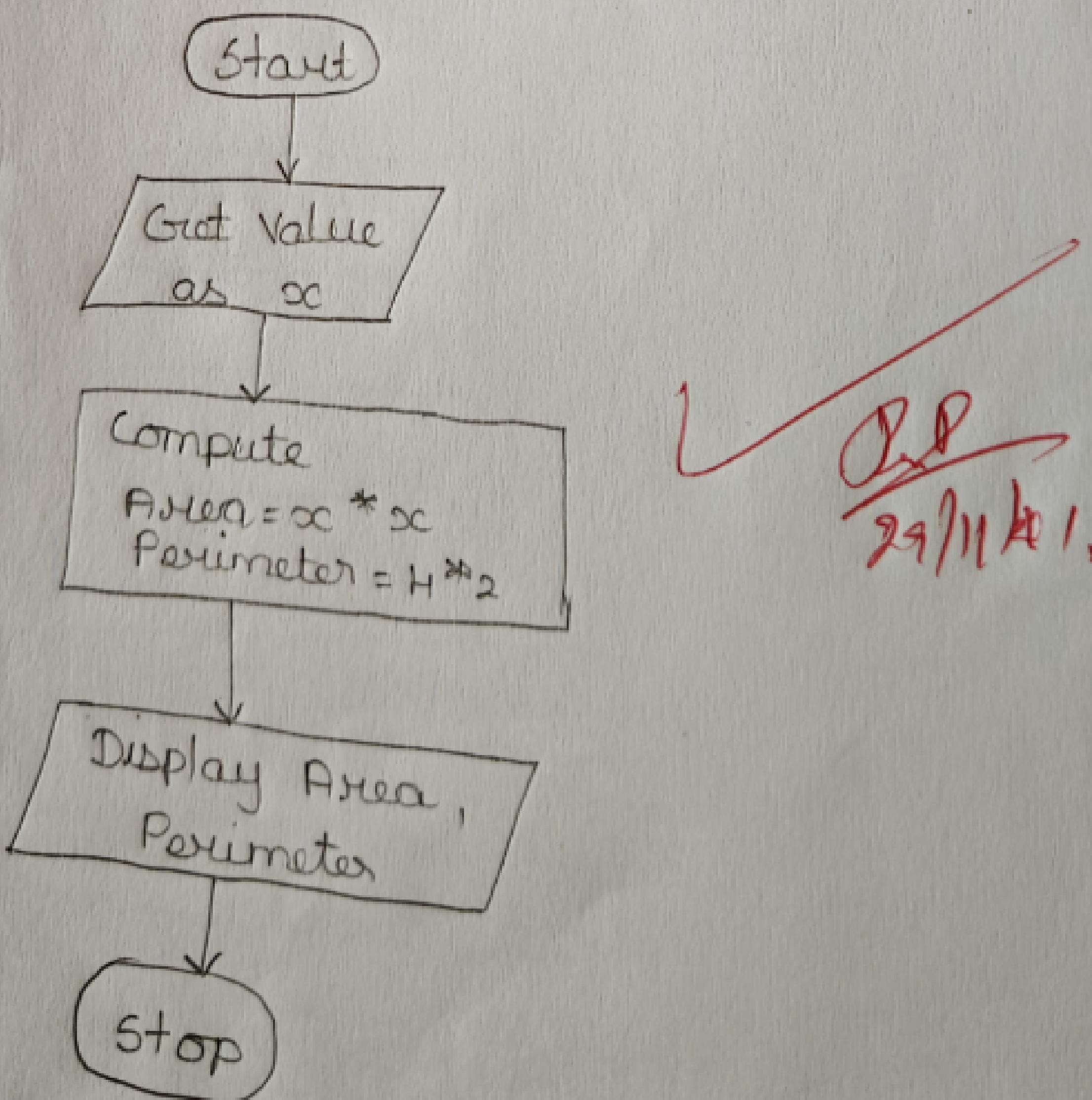
Step 1: Start

Step 2: Get the Side Value of a Square
as x

Step 3: Compute By using Formula $\text{Area} = x * x$

Step 4: Display Area, Perimeter

Step 5: Stop

Flowchart:

Ex. No.: 2

Date: 3/10/2024

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 no of days as x

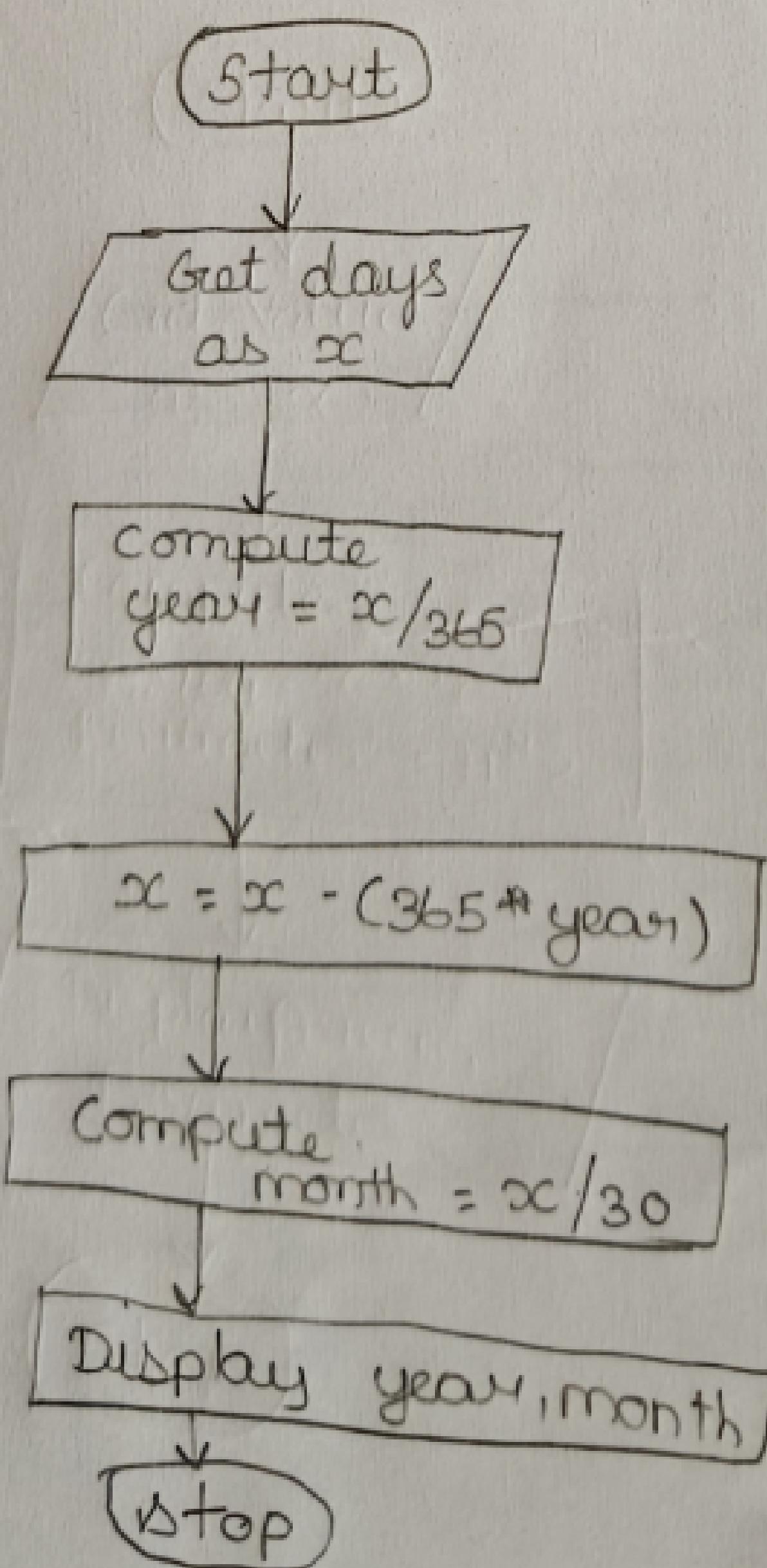
Step 3: compute by using formula. $\text{year} = \frac{x}{365}$

Step 4: $x = x - (365 * \text{year})$

Step 5: compute month by using the formula
 $\text{month} = \frac{x}{30}$

Step 6: Display year, month

Step 7: Stop

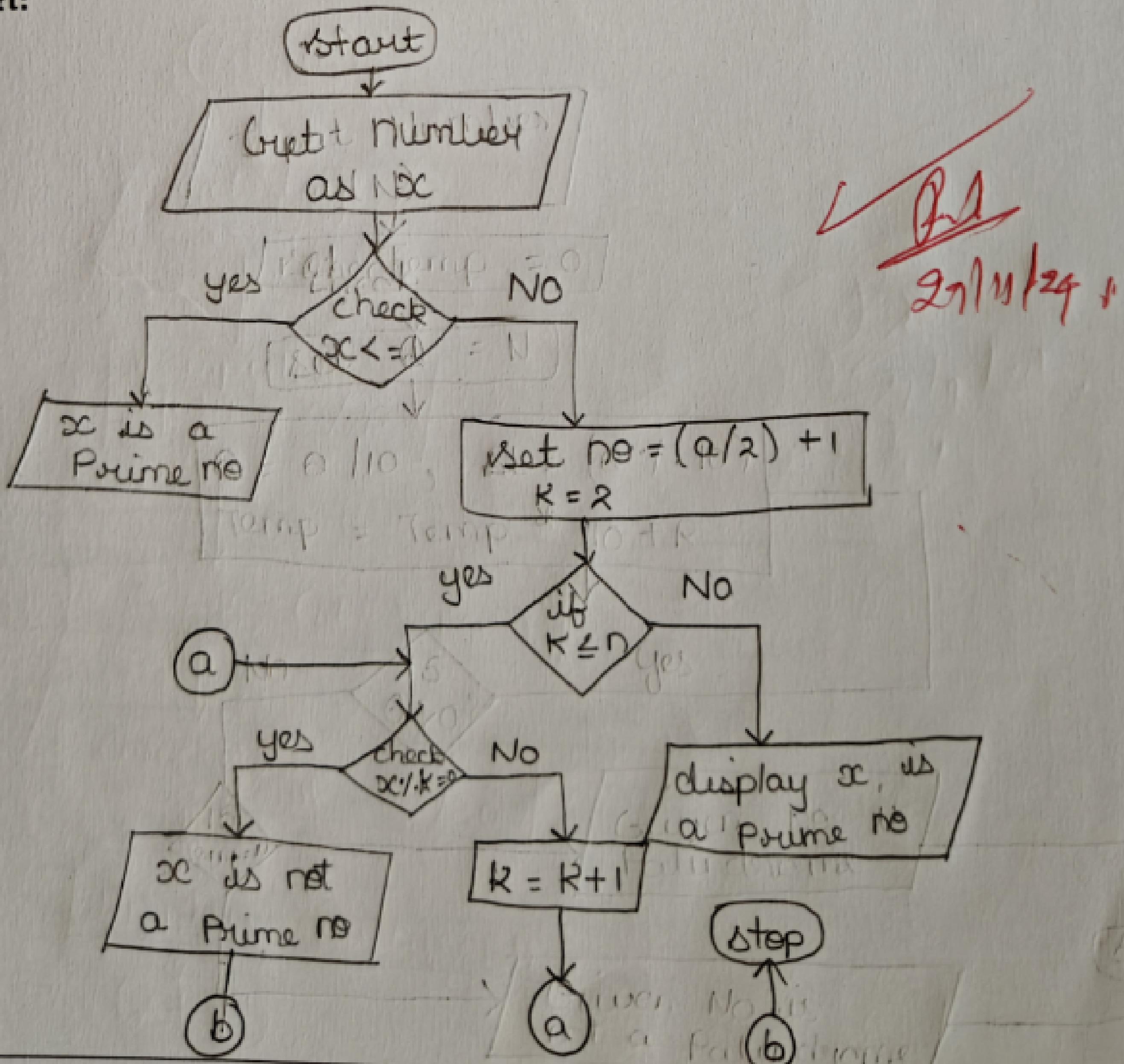
Flowchart:

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: Get a number from the user as x .
- Step 3: Check whether $x \leq 1$, otherwise go to 5.
- Step 4: Display x is not a Prime Number
- Step 5: Set $n = (x/2) + 1$, $K = 2$
- Step 6: If $K \leq n$, otherwise go to 10
- Step 7: Check $x \% K = 0$, otherwise go to 9
number go to 11
- Step 8: Display x is not a Prime
- Step 9: $K = K + 1$, go to 6
- Step 10: Display x is a Prime number
- Step 11: Stop

Flowchart:


Ex. No.: 4

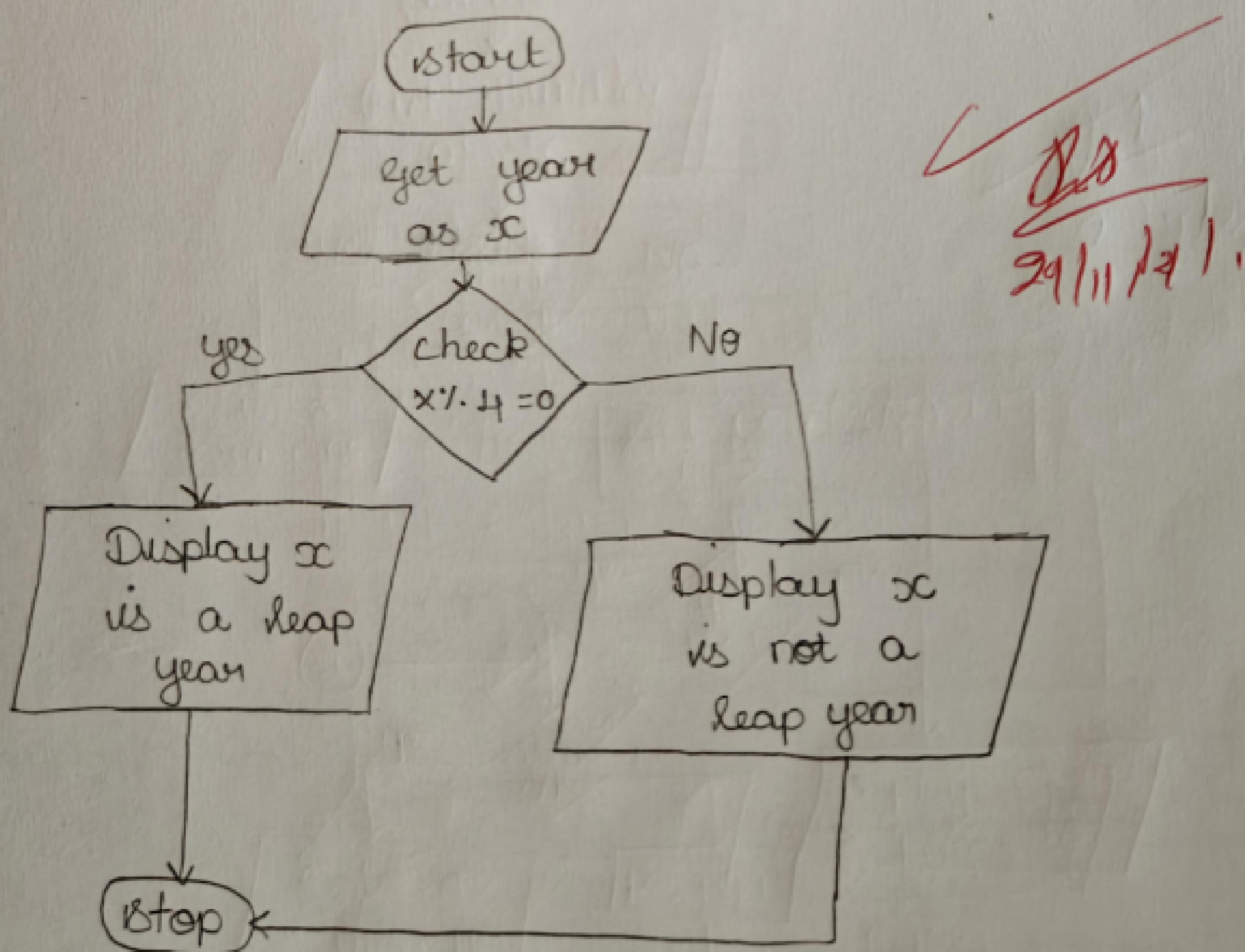
Date: 3/10/2024

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: Get the year from the user as x .
- Step 3: Check whether $x \% 4 = 0$, otherwise go to b.
- Step 4: Display x is a leap year, go to b.
- Step 5: Display x is not a leap year
- Step 6: Stop

Flowchart:

Ex. No.: 5

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 : Input Number (N)

Step 3 : Initialize temporary Number

Step 4 : Q = N

Step 5 : Divide by 10, quotient in a remainder in R

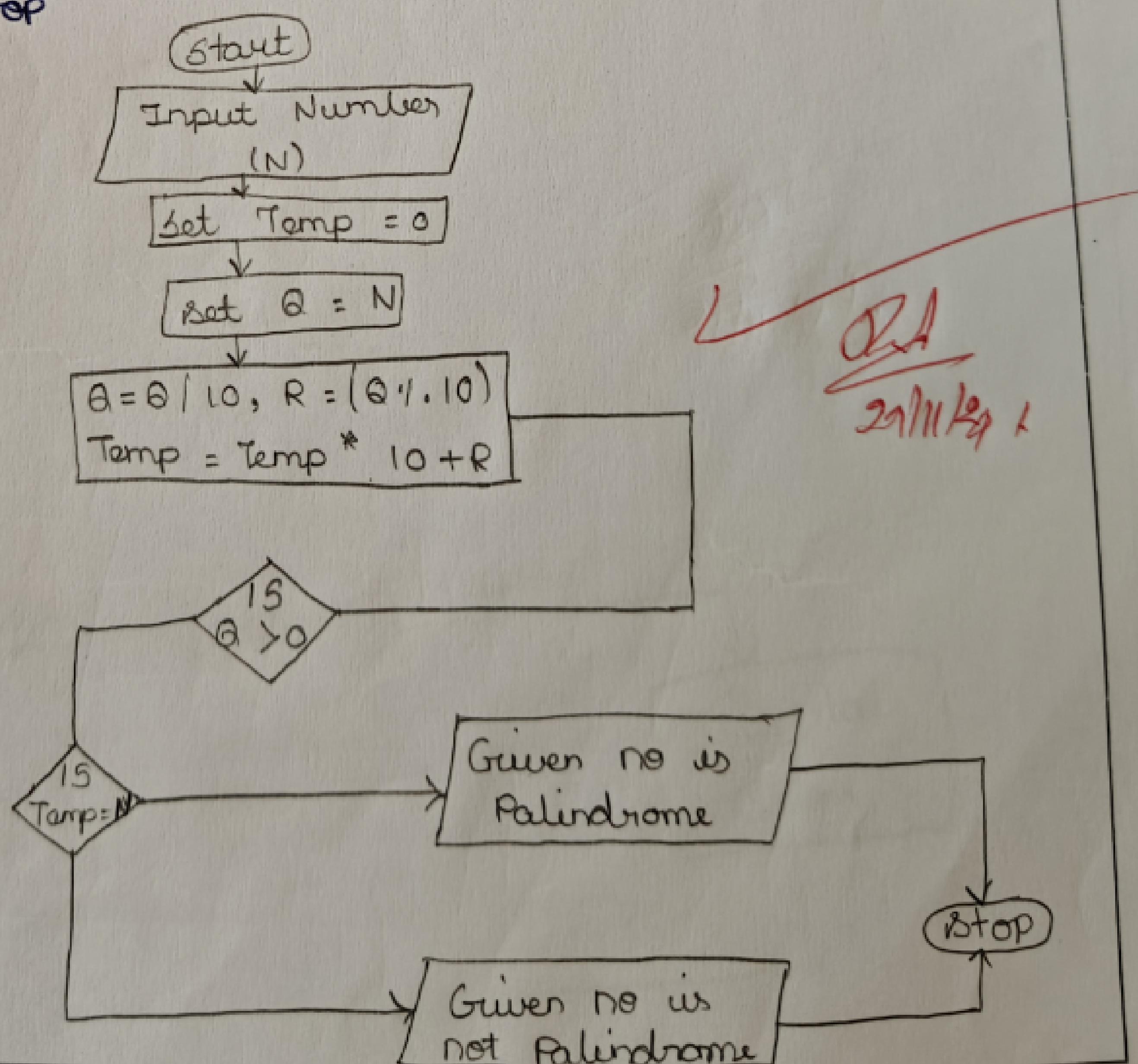
Step 6 : Perform Temp = Temp * 10 + R

Step 7 : Repeat Step 5 , Step 6 till Q remains Positive

Step 8 : If N = Temp , display The given no is Palindrome

otherwise the Number is not a Palindrome

Step 9 : Stop

Flowchart:

Ex. No.: 6

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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

Step-3 : assign n=0

Step-4 : use while loop ($n \neq 0$)

$$\text{rem} = n \% 10$$

$$\text{sum} = \text{sum} + \text{rem}$$

$$n = n / 10$$

Step-5 : Display sum

Step-6 : Stop.

Flowchart: