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

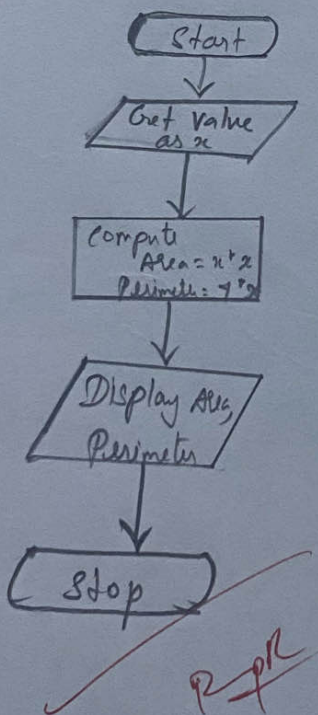
Calculate Area and Perimeter

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

Algorithm:

Step 1: Start
Step 2: Get the side value of the Square as x
Step 3: Compute by using the formula Area = x * x and perimeter = 4 * x
Step 4: Display Area, Perimeter
Step 5: Stop

Flowchart:



Ex. No.: 2. **Date:** 24/10/24

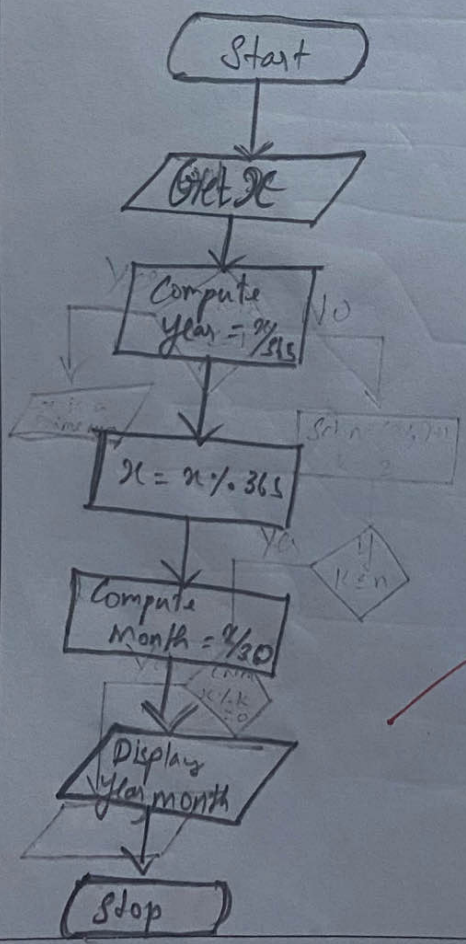
Days to Year Conversion

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

Algorithm:

Step 1: Start
Step 2: Get no. of days as n
Step 3: Compute by using the formula year = n/365
Step 4: n = n%.365
Step 5: Compute by using the formula month = n/30
Step 6: Display year, month
Step 7: Stop

Flowchart:



Ex. No.: 3 **Date:** 24/10/24

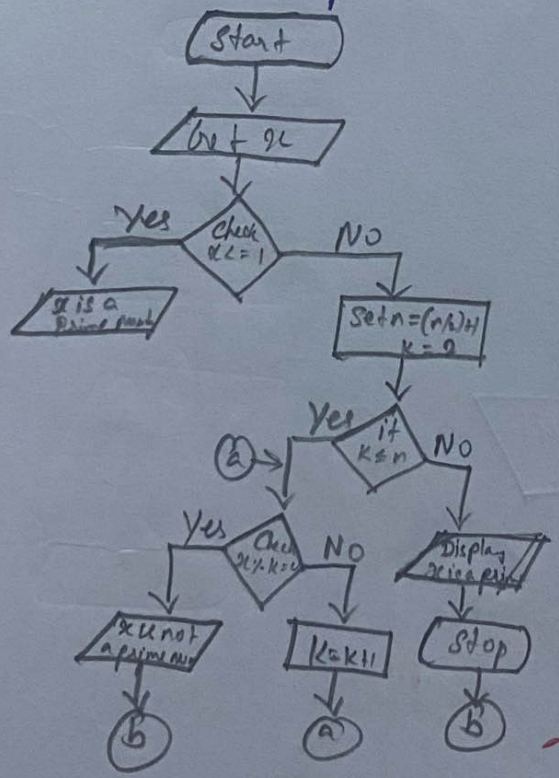
Prime Number

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

Algorithm:

Step 1: Start
Step 2: Get a number from the user as x
Step 3: Check whether $x <= 1$, otherwise goto 5
Step 4: Display x is not a prime number
Step 5: Set $n = (x/2)+1$, $k = 2$
Step 6: if $k <= n$, otherwise goto 10
Step 7: Check $x \% k = 0$, otherwise goto 9
Step 8: Display x is not a prime number, goto 11
Step 9: $k = k+1$, goto 6
Step 10: Display x is a prime number
Step 11: Stop

Flowchart:



Result

Ex. No.: 4

Date: 29/10/24

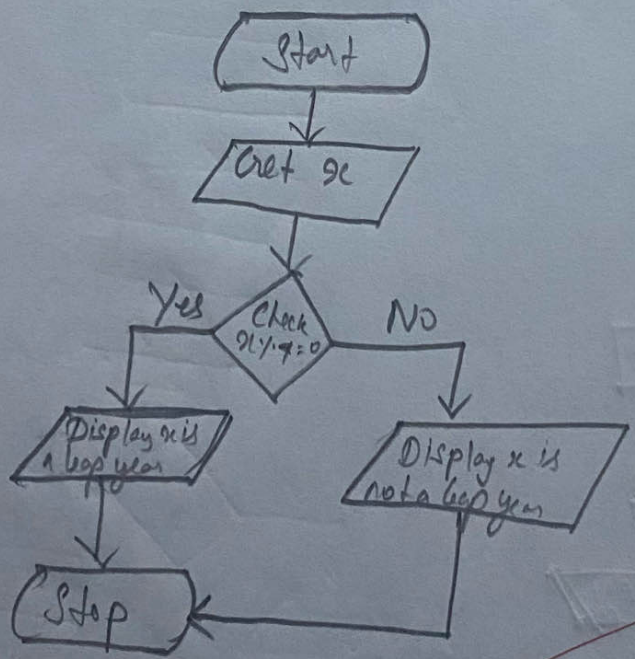
Leap Year

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

Algorithm:

Step 1: Start
Step 2: Get the year from the user as x
Step 3: Check whether x % 4 = 0, otherwise goto 6
Step 4: Display x is a leap year, goto 7
Step 5: Display x is not a leap year
Step 6: Stop

Flowchart:



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

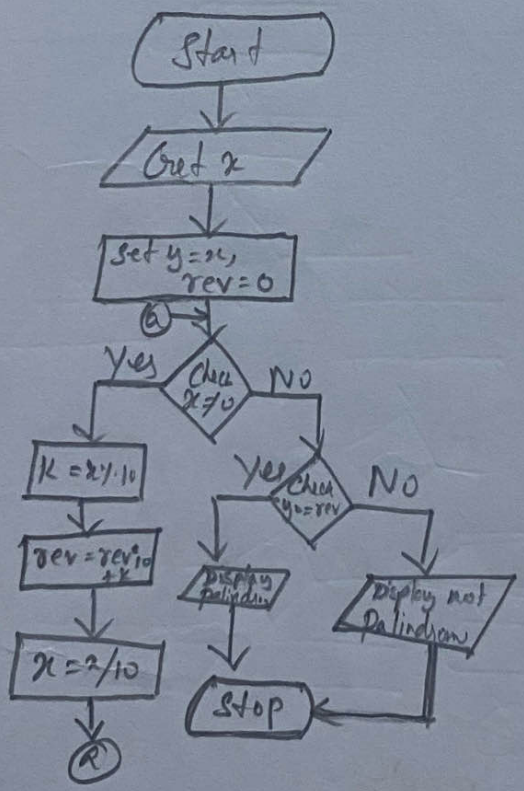
Palindrome Number

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

Algorithm:

Step 1: Start
Step 2: Get a number from the user as x
Step 3: Set y = x, rev = 0
Step 4: Check whether x is not equal to 0, Otherwise goto 8
Step 5: Compute k = x%10
Step 6: rev = rev*10+k
Step 7: x = x/10, goto 4
Step 8: Check whether y == rev, otherwise goto 10
Step 9: Display given number is palindrome, goto 11
Step 10: Display given number is not a palindrome
Step 11: stop

Flowchart:



Ex. No.: 6 **Date:** 24/10/24

Sum of Digits

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

Algorithm:

Step 1: Start
Step 2: Get the number from the user as x
Step 3: Set k = 0
Step 4: Check whether x is not equal to 0, go to 8
Step 5: Compute y = x % 10
Step 6: k = k + y
Step 7: Compute x = x/10 goto 4
Step 8: Display k
Step 9: Stop

Flowchart: