Ex. No.: ~~26/9/24~~ 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:

Step 1:- Start

Step 2:- User input of the side value as x.

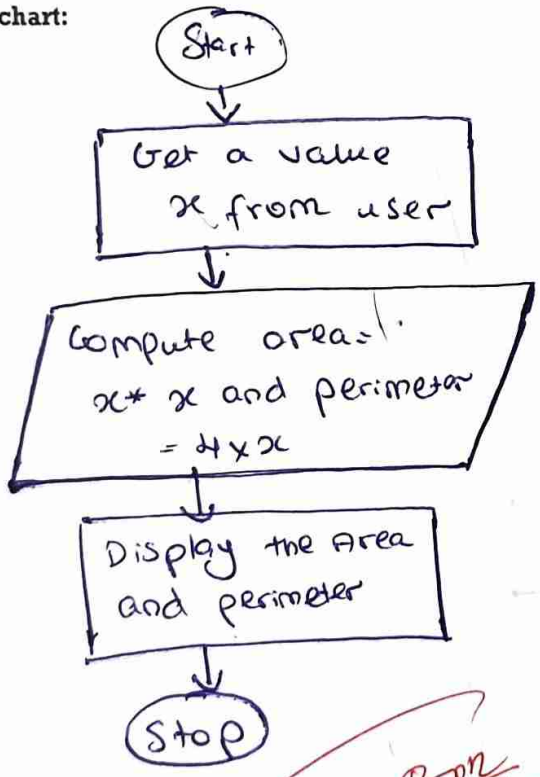
Step 3:- Compute by using the formula

Area = x * x and perimeter = 4 * x.

Step 4:- Display the area and perimeter.

Step 5:- Stop.

Flowchart:



RPR 26/9/24

Ex. No.: 2 Date: 26/9/24

Days to Year Conversion

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

Algorithm:

Step 1:- Start

Step 2:- accept the number of days as d.

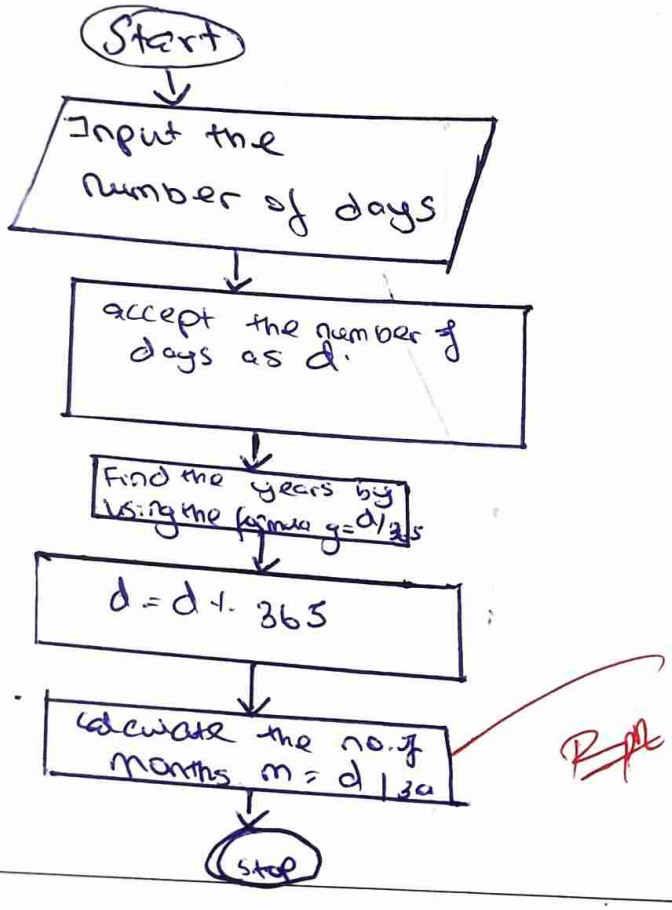
Step 3:- find the years by using the formula $y = \frac{d}{365}$.

Step 4:- $d = d \% 365$

Step 5:- calculate the no. of months $m = d/30$.

Step 6:- Stop.

Flowchart:



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

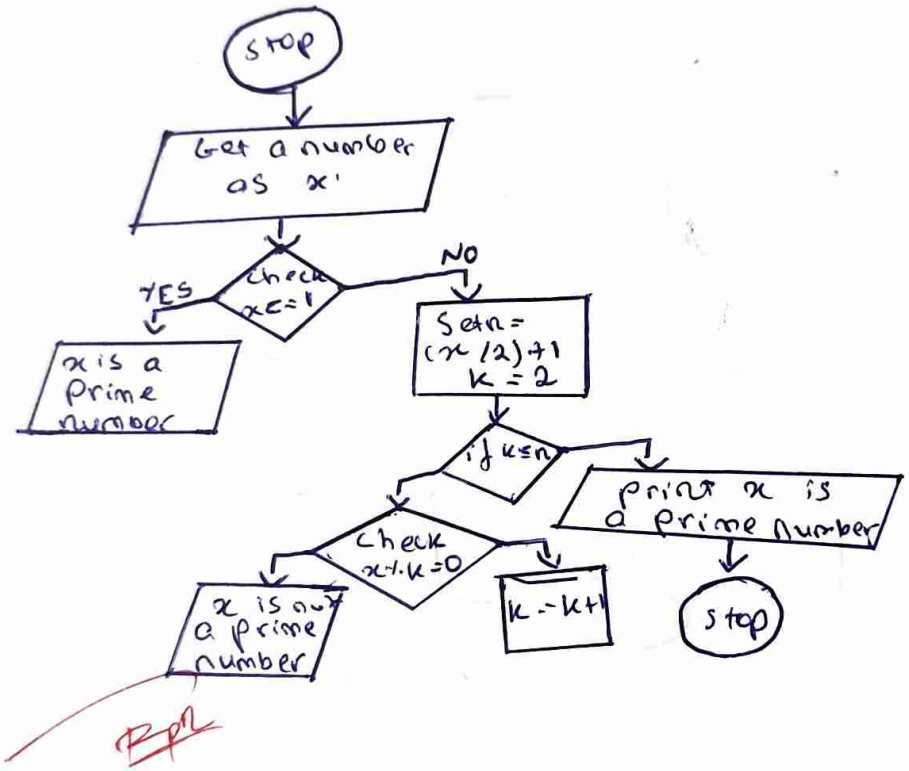
Prime Number

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 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 ≤ n, else if go to 10.
Step 7:- check if x % k == 0, else if go to 9.
Step 8:- Display x is not a prime number go to 11.
Step 9:- k = k+1, go to 6.
Step 10:- Display x is a prime number.
Step 11:- Stop

Flowchart:



Ex. No.: 14 Date: 3/10/24

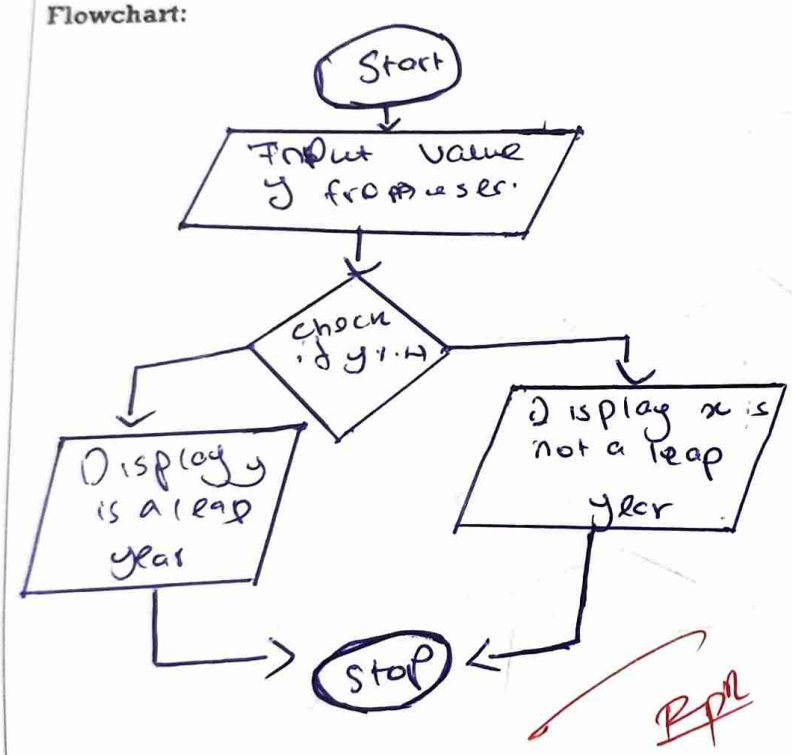
Leap Year

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

Algorithm:

Step 1 :- start
Step 2 :- accept the year as 'y' from the user.
Step 3 :- check whether y % 4 == 0. if else go to 5.
Step 4 :- Display that y is a leap year.
Step 5 :- Display y is not a leap year.
step 6 :- Stop.

Flowchart:



RPR

Ex. No.: 5 **Date:** 3/10/24

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 user input number as x, set y = x, rev = 0.

step 3:- check if x = 0, if not go to 4.

Step 4:- compute z = x%10.

step 5:- rev = rev * 10 + z.

Step 6:- x = x/10, go to 3.

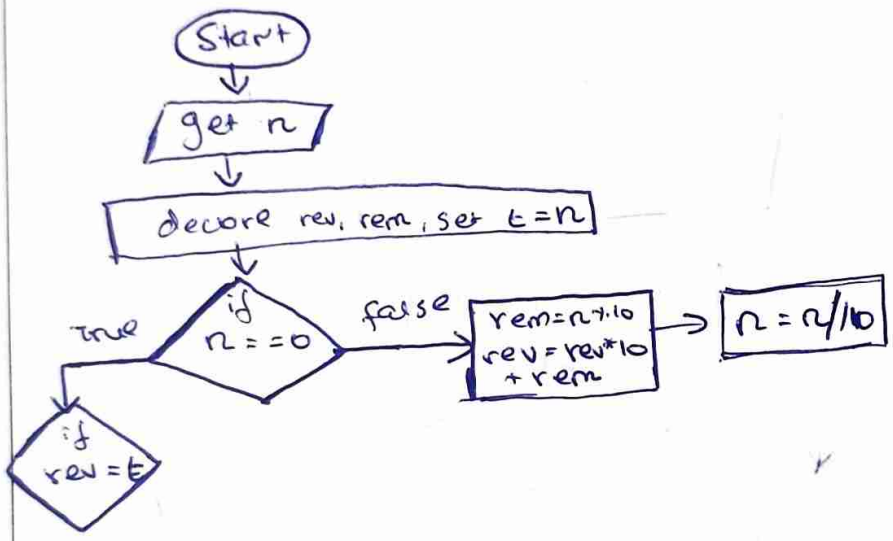
step 7:- check if y = rev, else go to 10.

step 8:- Display the given number is palindrome.

step 9:- Display the given num.

Step 10:- Stop

Flowchart:



Ex. No.: 6 Date: 3/10/24

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.
Step 3:- Construct a variable to hold the total & initialise it too.
Step 4:- Repeat step 2 and 3 until the result is 0.
Step 5:- Divide the no by 10.
Step 6:- use the '/' operator to divide the integer by 10 to eliminate the last digit on the right.
Step 7:- Display the total.
Step 8:- Stop.

Flowchart: