Algorithm & Flowchart

Ex. No.: 1 Date: 21/10/24

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 side (a) of the square from user

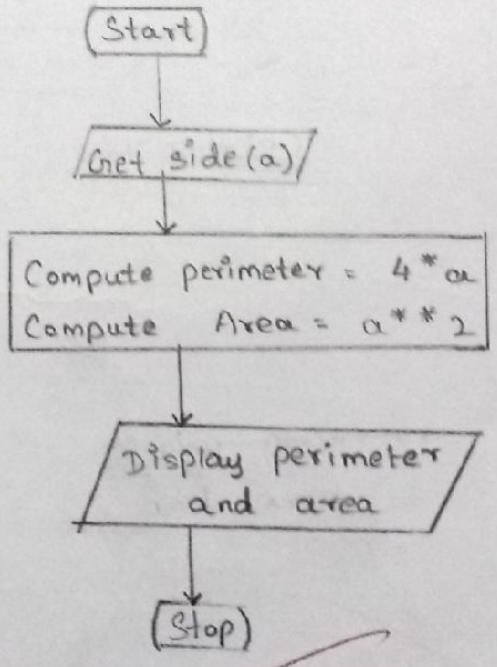
Step 3:- Compute perimeter = 4 * a

Step 4:- Compute Area = a**2

Step 5:- Display perimeter (P) and Area (A)

Step 6:- Stop

Flowchart:



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Ex. No.: 2

Date: 21/10/2024

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 the number of days from user

Step 3:- Calculate the number of years by dividing days of 365 : years = days // 365

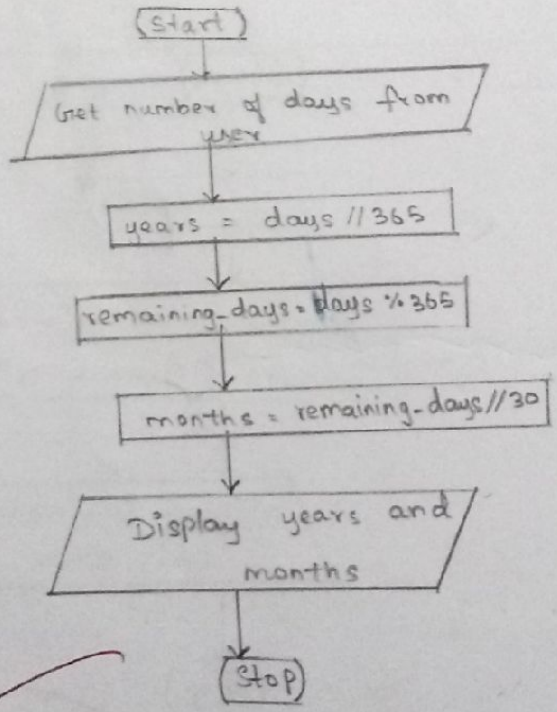
Step 4:- Calculate the remaining days after subtracting the total number of years.
- remaining_days = days % 365

Step 5:- Convert the remaing days into months
- months = remaining_days // 30

Step 6:- Display years and months

Step 7:- Stop

Flowchart:



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Ex. No.: 3

Date: 22/10/2024

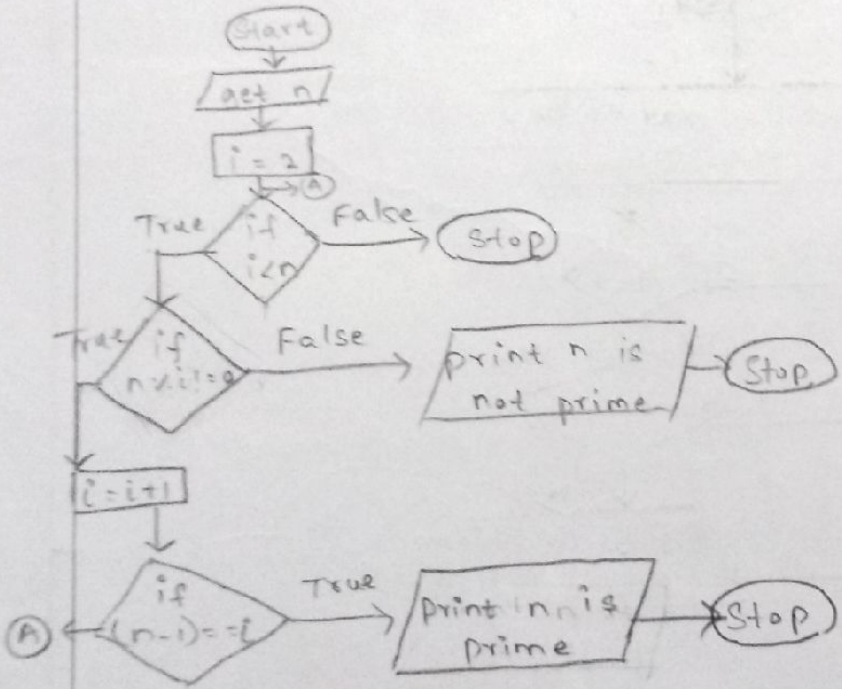
Prime Number

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

Algorithm:

Step 1:- Start
Step 2:- Read value n
Step 3 :- set i=1, count = 0
Step 4 :- If i<=n, if go to steps (or) goto step 8.
Step 5 :- Check n % i = 0, go to step 6.
Step 6 :- Set count = count + 1
Step 7 :- i = i+1, go to step 4
Step 8 :- Check count, if count = 2, Display prime num.
Step 9:- Stop

Flowchart:



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Ex. No.: 4

Date: 22/10/2024

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:- Input year

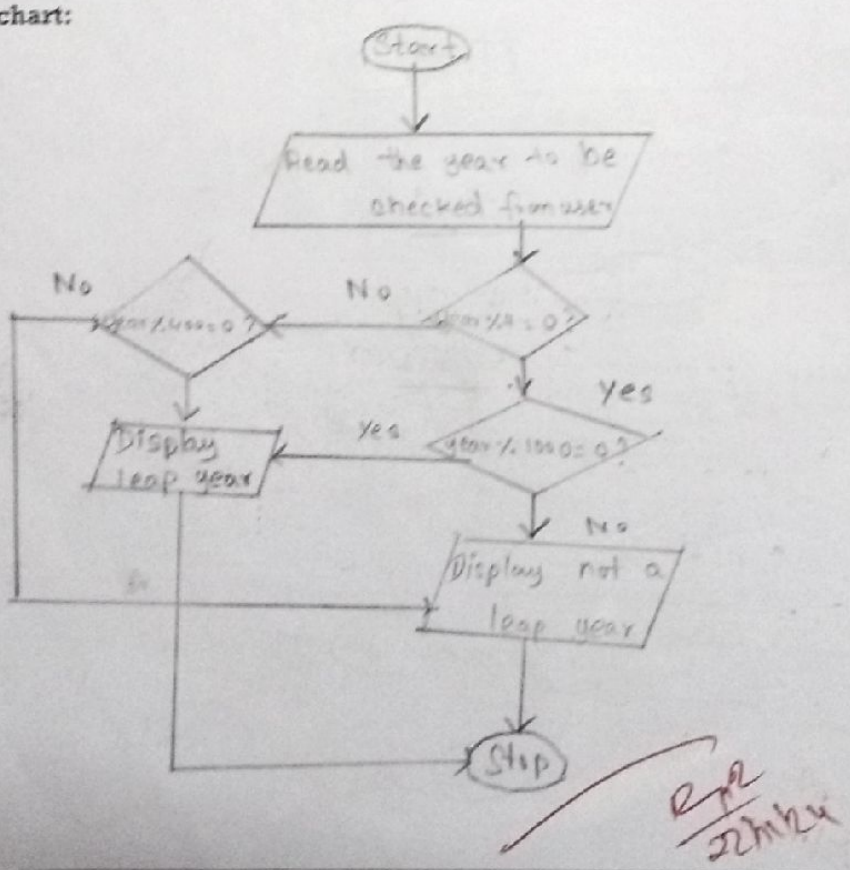
Step 3:- Calculate leap year = year % 4 == 0, go to step 4

Step 4:- Display it is leap year

Step 5:- Display it is not leap year

Step 6:- Stop

Flowchart:



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Ex. No.: 5 Date: 22/10/2024

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 x

Step 3 :- Set y = x , rev = 0

Step 4 :- check x != 0 (or) go to step 8

Step 5 :- Compute k = x % 10

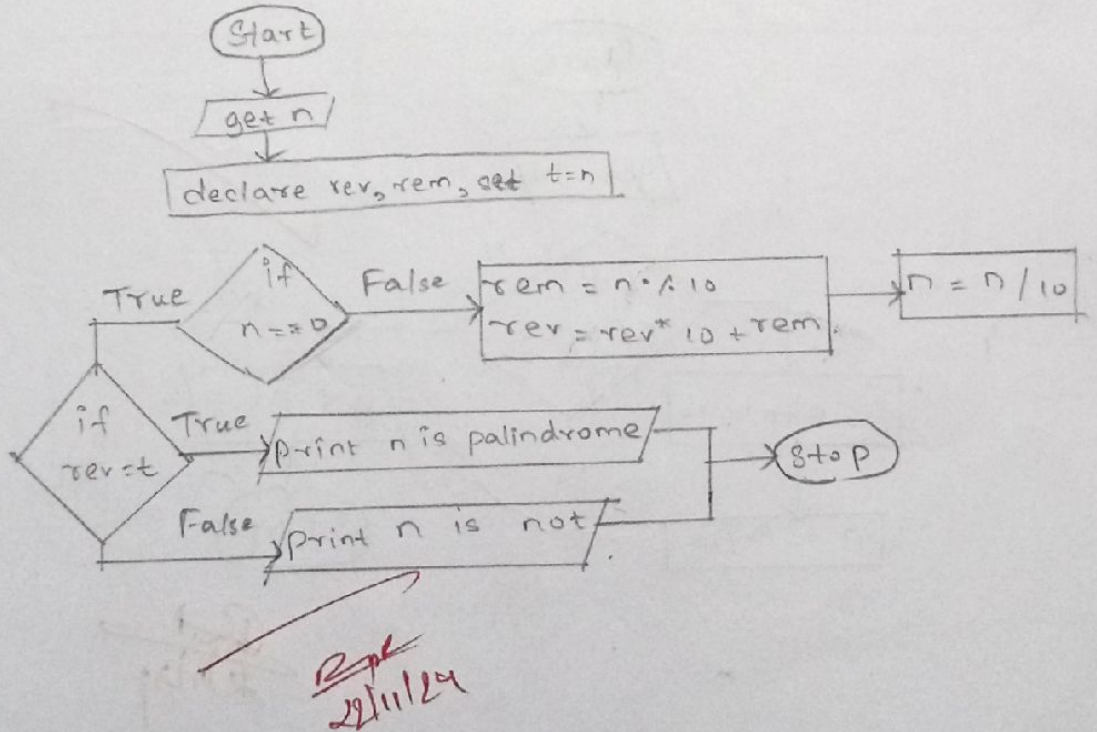
Step 6 :- rev = rev * 10 + k

Step 7 :- x = x/10 , go to Step 4

step 8 :- Check if y == rev, otherwise go to step 10

Step 9 :- Stop

Flowchart:



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Date: 22/10/24

Ex. No.: 6

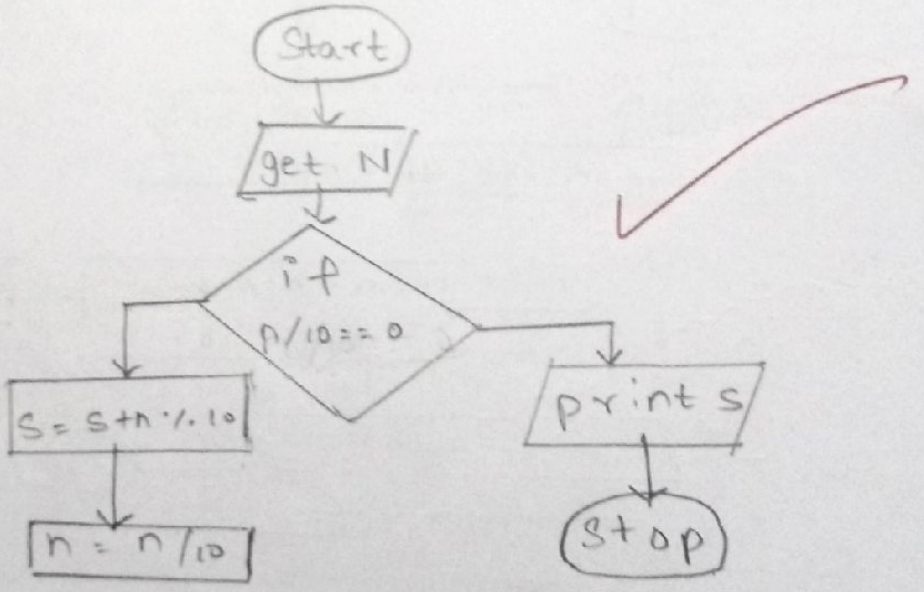
Sum of Digits

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

Algorithm:

Step 1 : Start
Step 2 :- Input x
Step 3 :- Set k = 0
Step 4 :- check if x ! =0, go to step 8
Step 5 :- Compute y = x %. 10
Step 6 :- k = k+y
Step 7 :- Compute x=x/10 , goto step 4
Step 8 :- Display k
Step 9 :- Stop

Flowchart:



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