Algorithm & Flowchart

Ex. No.: 1

Date: 3|10|24

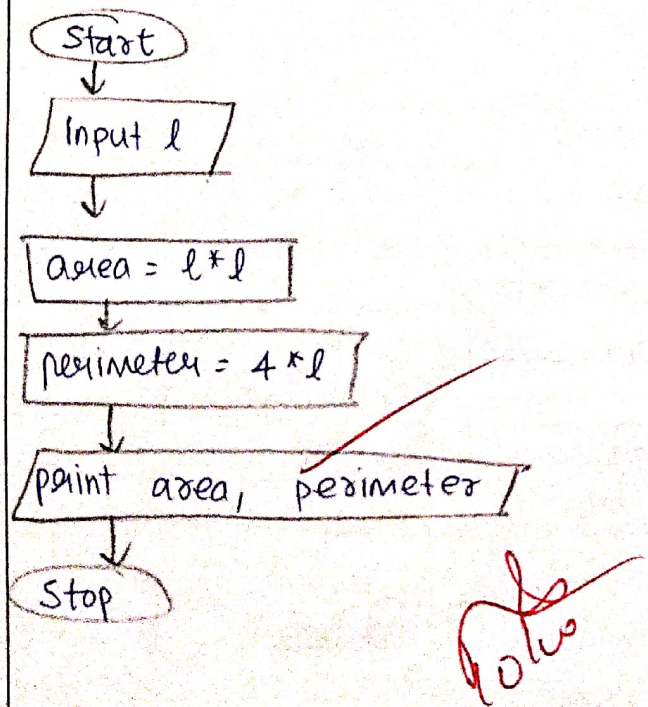
Calculate Area and Perimeter

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

Algorithm:

Step 1: Start
Step 2: Get edge length 'l' from user
Step 3: Multiply l * l and store in area
Step 4: Multiply 4 * l and store in perimeter
Step 5: Print area, perimeter
Step 6: Stop

Flowchart:



Ex. No.: II

Date: 3/10/24

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 input days from user and store as days. Initialize years, months and remDays to 0.

Step 3: Start loop till days >= 365

Step 4: Increement years by 1. Subtract 365 from days.

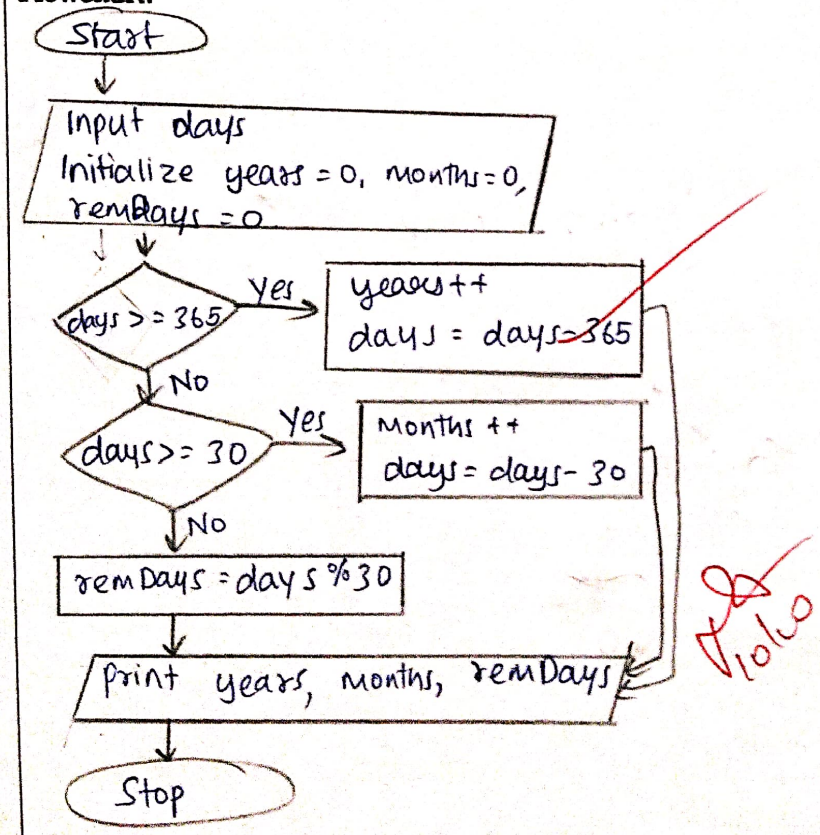
Step 5: Start loop till days >= 30

Step 6: Increement ~~day~~ months by 1. Subtract 30 from days.

Step 7: print years and months and remDays as days%30

Step 8: End.

Flowchart:



Ex. No.: 3.11 **Date:** 5/10/24

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 input num from user, initialize temp = 0.

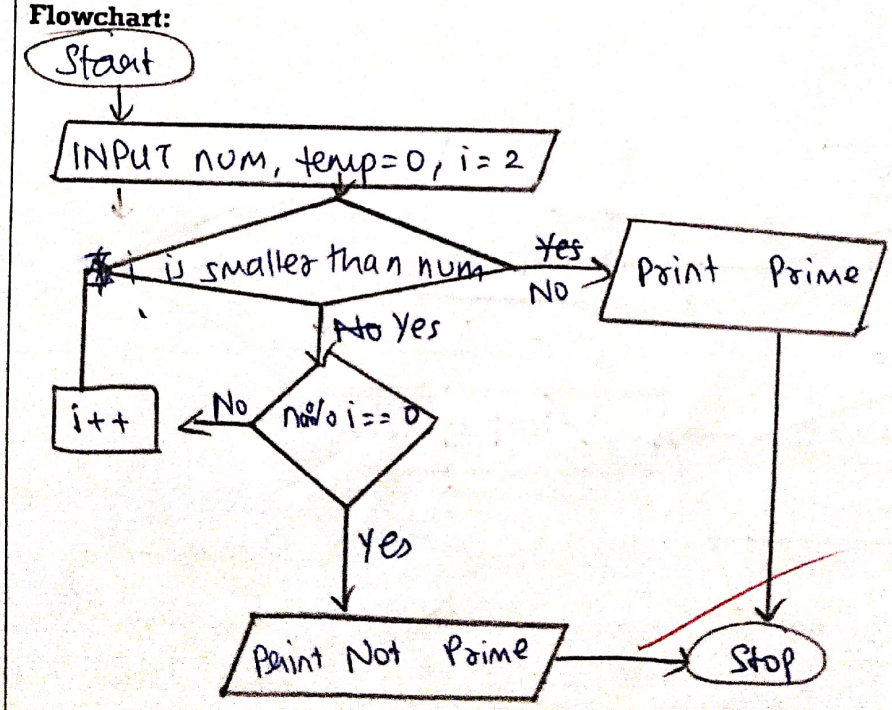
Step 3: Start loop from 2 to num ~~-2~~.

Step 4: If num is divisible by loop iterator, increment temp.

Step 5: If temp is equal to 0, print prime else print not prime

Step 6: Stop

Flowchart:



Ex. No.: 4V **Date:** 5/10/24

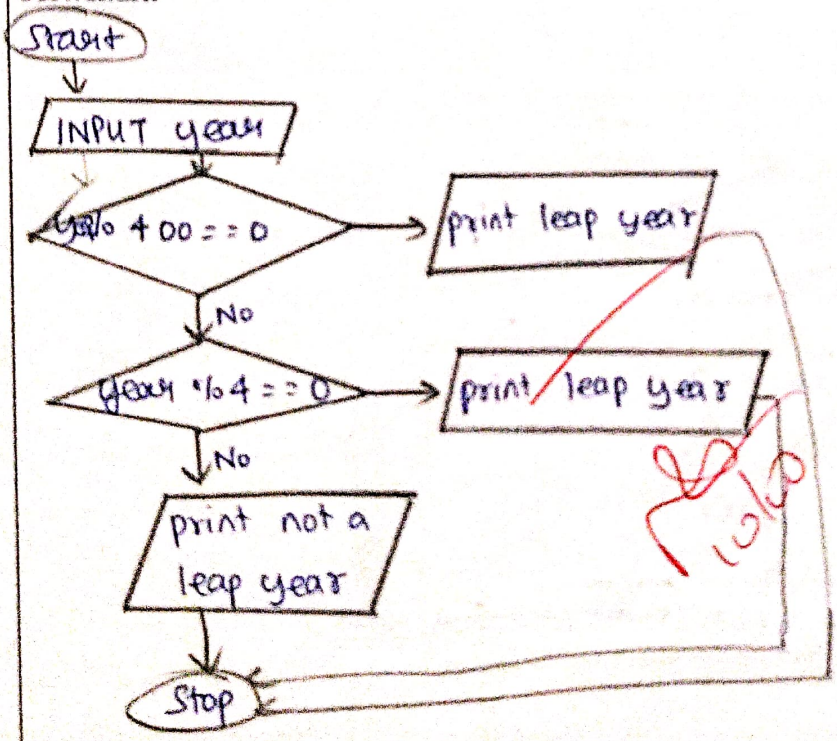
Leap Year

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 input year from user
Step 3: If year is divisible by 400, it is a leap year. Go to Step 6
Step 4: If year is divisible by 4 but not by 100, it is a leap year. Go to Step 6
Step 5: Else year is not leap year. Go to step 6
Step 6: Print whether year is leap year or not
Step 7: Stop

Flowchart:



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

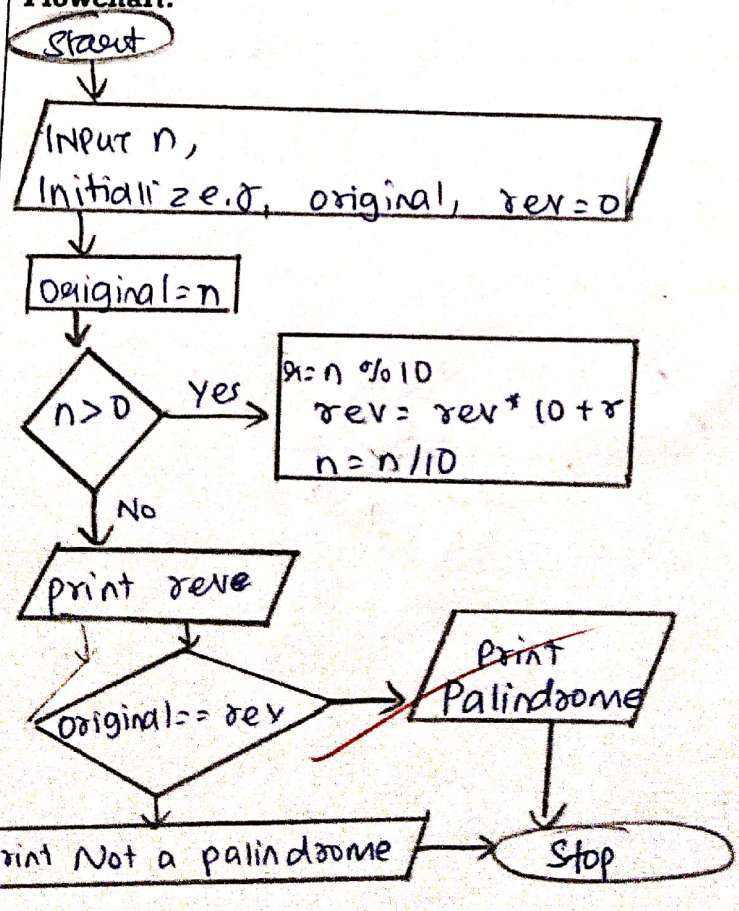
Palindrome Number

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

Algorithm:

Step 1: Start
Step 2 : Input n, Initialize r, original, rev = 0
Step 3 : Original is equal to n. Start loop till n>0.
Step 4 : Find remainder of n % 10 and store in r.
Step 5 : Find rev * 10 + r and store in rev.
Step 6 : Find n/10 and store in n.
Step 7 : Print the reverse number.
Step 8: If original equals rev, the number is a palindrome else it is not a palindrome.
Step 9: Stop

Flowchart:



10/10

Ex. No.: 11

Date: 5/10/24

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 input from user and store in n.
Step 3: Start loop till n>0
Step 4: Find n%10 and store the remainder in r.
Step 5: Sum the remainder to output variable sum.
Step 6: Divide n/10
Step 7: Repeat step 4
Step 8: End loop for n>0.
Step 9: Print the sum value
Step 10: Stop

Flowchart: