WEEK 0

Ex. No.: 1 **Date:** 25.09.2024

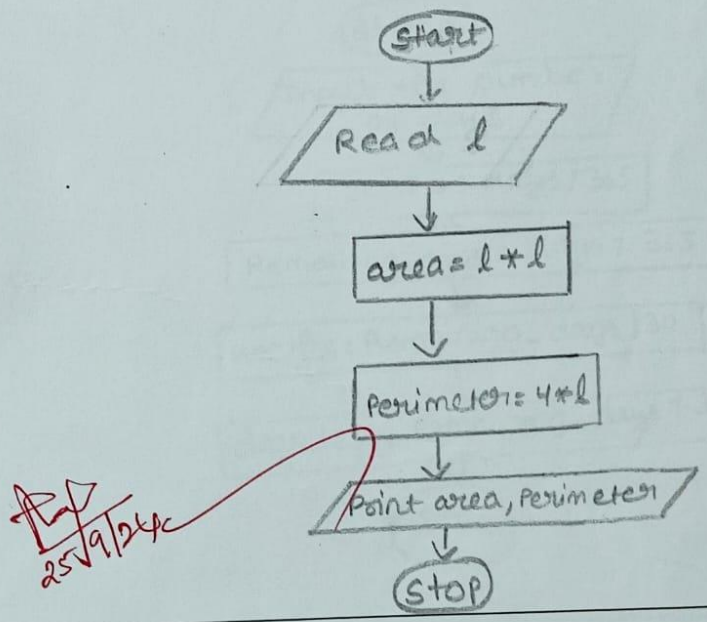
Calculate Area and Perimeter

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

Algorithm:

step 1 : Start
step 2 : Read l
step 3 : area = l*l
step 4 : Perimeter = 4*l
step 5 : Print area, Perimeter
step 6 : Stop

Flowchart:



25/9/24

Ex. No.: 2 **Date:** 27.9.2024

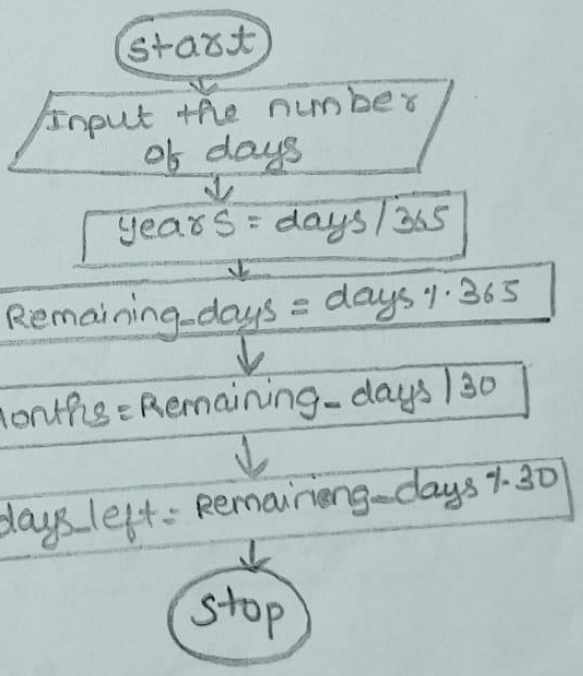
Days to Year Conversion

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

Algorithm:

step 1: start
step 2: Input the number of days
step 3: years = days / 365
step 4: Remaining_days = (days % 365)
step 5: Months = Remaining_days / 30
step 6: days_left = Remaining_days % 30
step 7: Print the years, Months, days_left
step 8: stop

Flowchart:



Ex. No.: 3 **Date:** 30.9.24

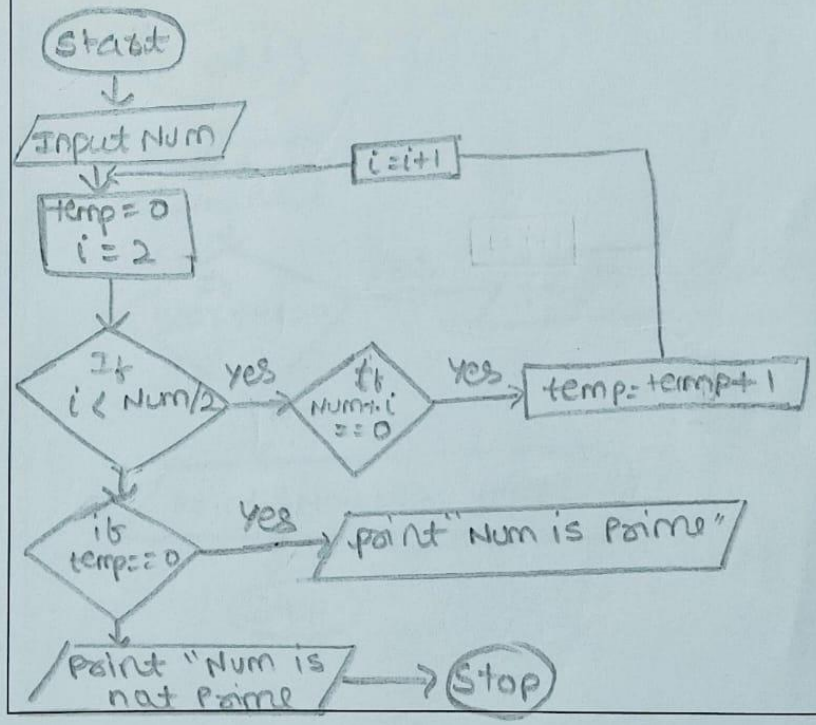
Prime Number

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

Algorithm:

Step 1: Start
Step 2: Take num as input
Step 3: Initialize a variable loop to 0.
Step 4: Iterate a 'for' loop from 2 to num/2
Step 5: If num is divisible by loop iterator, then increment temp
Step 6: If the loop is equal to 0:
print "Num is Prime"
else:
print "Num is not prime"
Step 7: Stop

Flowchart:



Ex. No.: 4 **Date:** 30.9.24

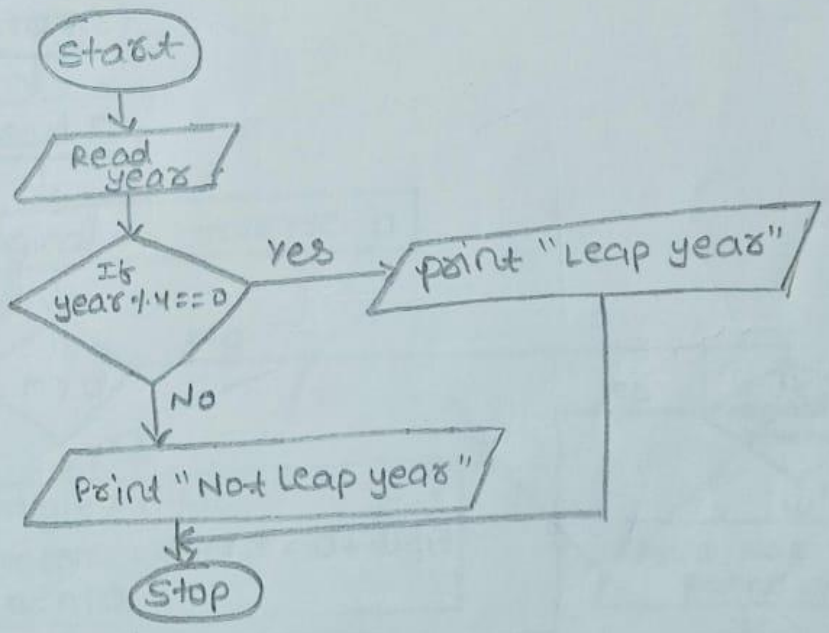
Leap Year

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

Algorithm:

Step 1: Start
Step 2: Read year
Step 3: If year % 4 == 0, if True go to step 4, else step 5
Step 4: print "Leap Year", go to step 6
Step 5: print "Not Leap year"
Step : Stop

Flowchart:



Ex. No.: 5 **Date:** 2.10.24

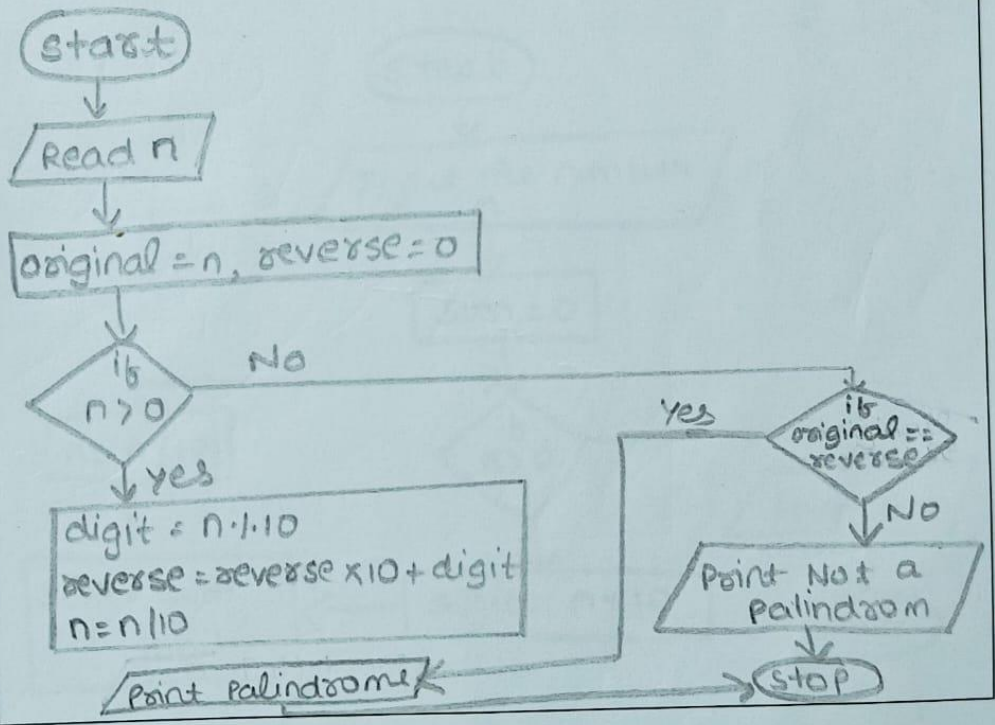
Palindrome Number

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

Algorithm:

Step 1: Start
Step 2: Read number n
Step 3: Initialize: set original = n and reverse = 0
Step 4: while n > 0
set digit = n % 10
update reverse = reverse x 10 + digit
update n = n/10
step 5: If original = reverse, print "Palindrome;"
else print "Not a Palindrome".
Step 6: Stop

Flowchart:



Ex. No.: 6 **Date:** 2.10.24

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: Input the number n

Step 3: Initialize sum = 0

Step 4: Repeat the following steps while n > 0

Extract the last digit of n:

digit = n % 10

Add the digits to sum:

sum = sum + digit

Remove the last digit from n: n = n/10

Step 5: Print sum

Step 6: Stop

Flowchart: