Ex. No.: 1 Date: 26-09-24

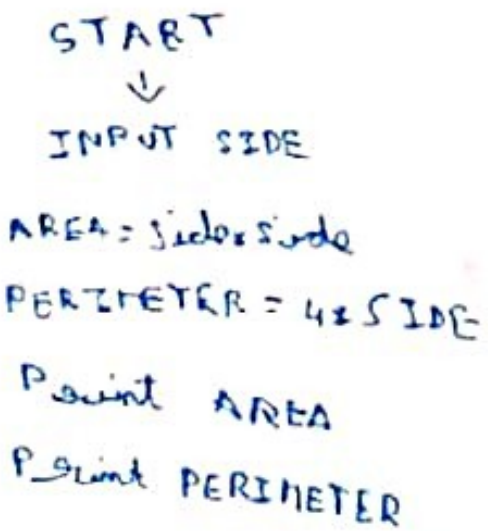
Calculate Area and Perimeter

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

Algorithm:

Step 1 : Start
Step 2 : Input a as side
Step 3 : A = a * a
Step 4 : Print A as area of square
Step 5 : B = 4 * a
Step 6 : Print B as perimeter of square
Step 7 : Stop

Flowchart:



Ex. No.: 2 **Date:** 26-09-24

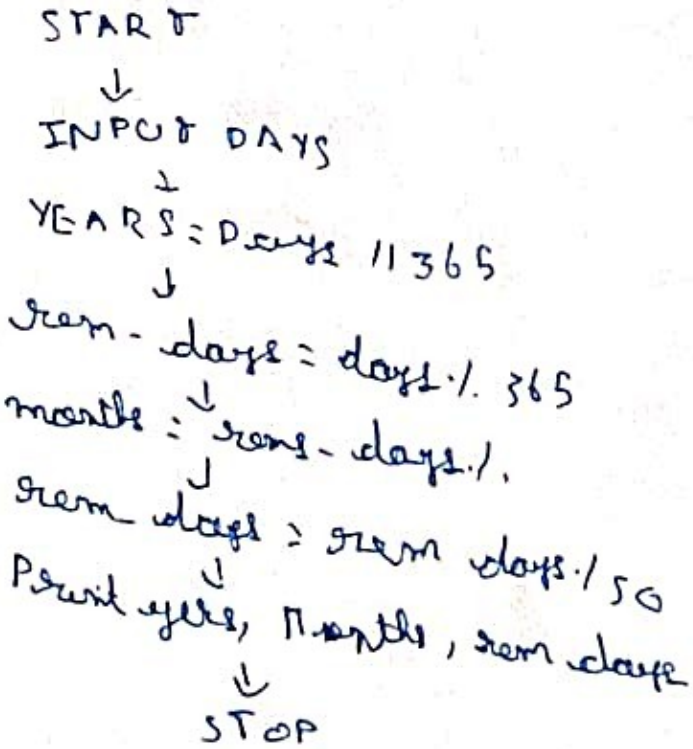
Days to Year Conversion

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

Algorithm:

Step 1: start
Step 2: input days
Step 3: Set Years = 0
Step 4: Set month = 0
Step 5: while days > 365
Step 6: days = days - 365
Step 7: Years = Years + 1
Step 8: while days > 30
Step 9: days = days - 30
Step 10: month = month + 1
Step 11: Step

Flowchart:



Ex. No.: 3 **Date:** 26-09-24

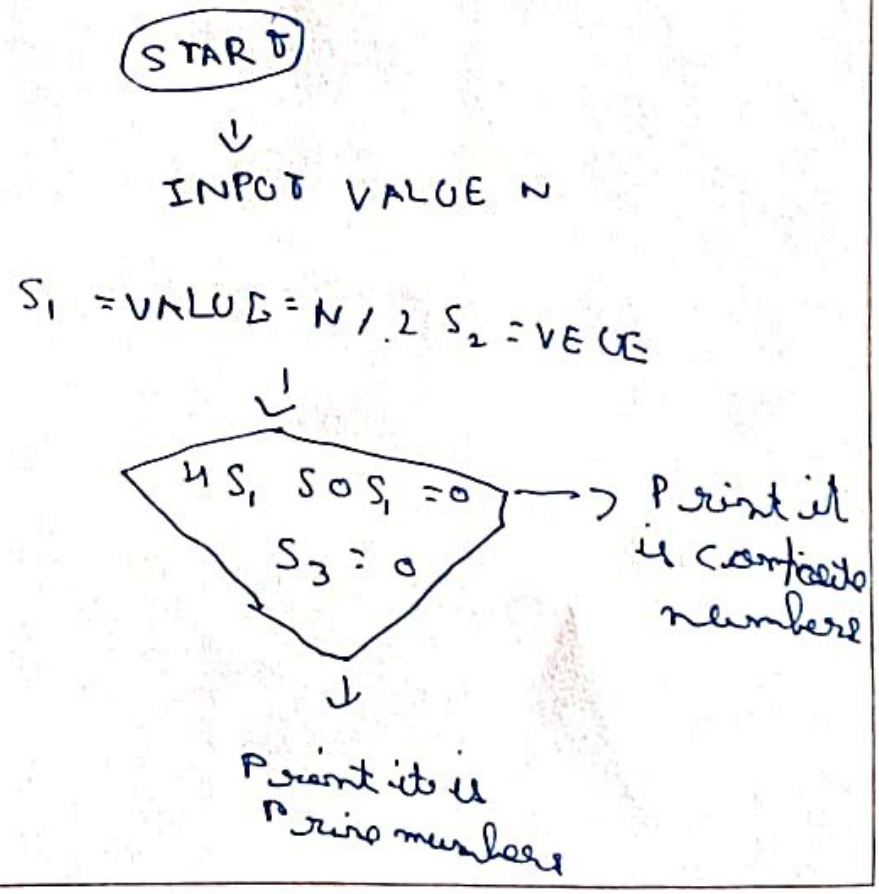
Prime Number

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

Algorithm:

Step 1 : Start
Step 2 : Input Value_N
Step 3 : S_1 = Value_N % 2 S_2 = Value N % 3
S_3 = Value_N % 7
Step 4 : If S_1 = 0 (or) S_2 = 0 (or) S_3 = 0 L = prime
Step 5 : Else L = Composite
Step 6 : Print L
Step 7 : Stop

Flowchart:



Ex. No.: 4 **Date:** 28-09-24

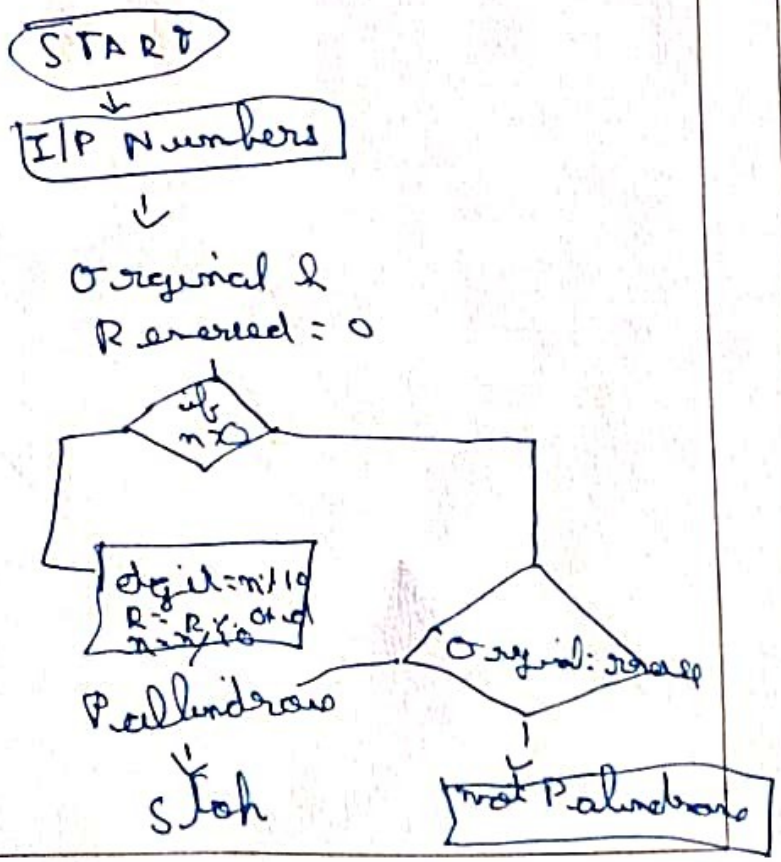
Leap Year

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

Algorithm:

Step 1 : Start
Step 2 : Input Y
Step 3 : If Y % 4 == 0 go to step 4 else print y is not leap year
step :

Flowchart:



Ex. No.: 5 Date: 28-09-24

Palindrome Number

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

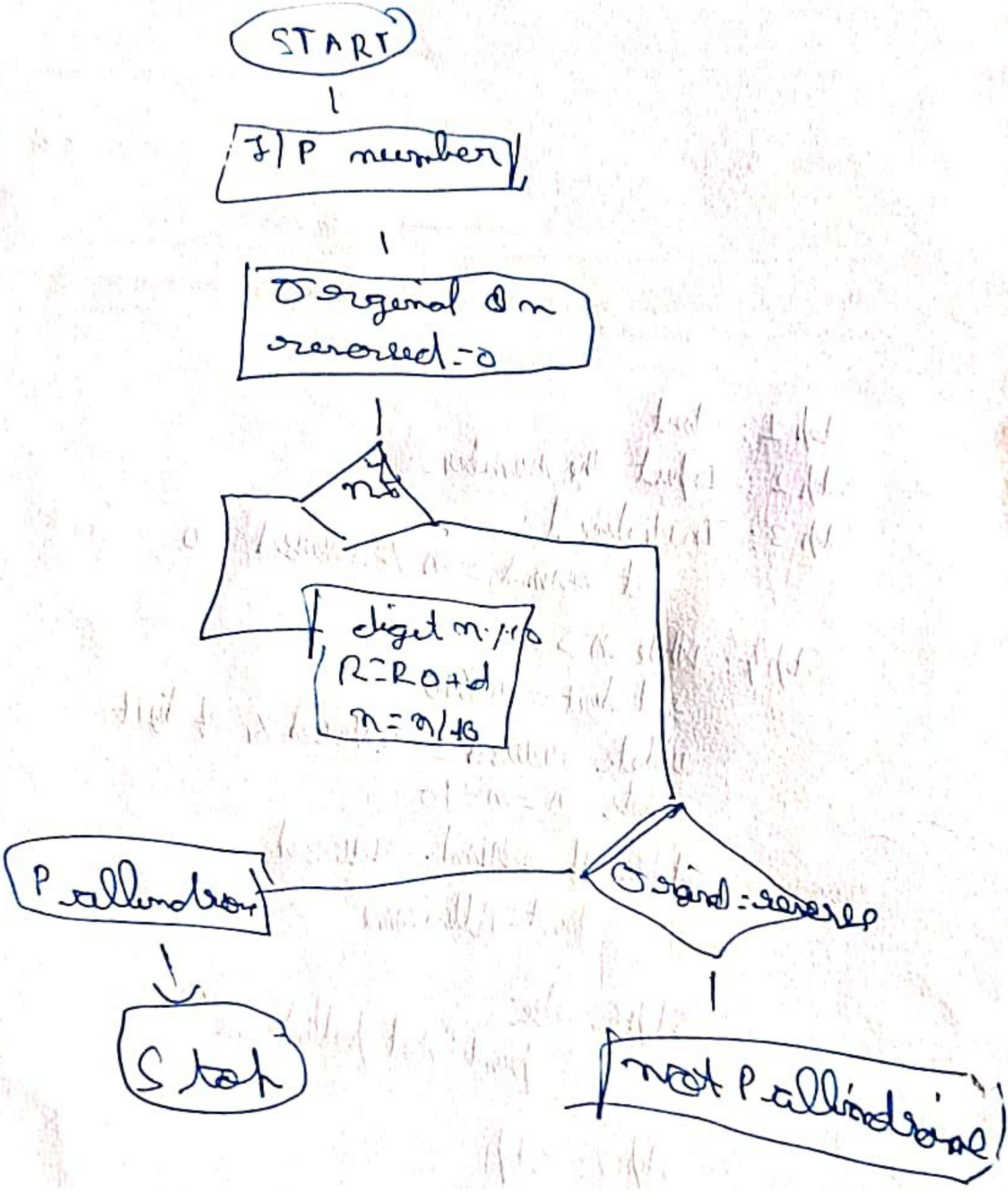
Algorithm:

Step 1 : Start
Step 2 : Input the number A
Step 3 : Initialize 1 :
set original = n & reversed = 0
Step 4 : while n > 0
set digit = n % 10
update reversed = reversed x, of digit
update n = n ÷ 10

Flowchart: Step 5: if original = reversed
print "Palindrome"

Step 6: else:
print "not Palindrome"

Step 7: Stop


START
I/P number
O original & n
reversed=0
n>0
digit n%10
R=R0+d
n=n/10
O rev=reversed
Palindrome
Stop
not Palindrome

Ex. No.: 6 **Date:** 28-09-24

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 : I/p the number (n)

Step 3 : Initialize sum = 0

Step 4 : Repeat the following steps while n is greater than 0. n > 0

- extract the last digit of n:

  digit = n % 10

- Add the digits to sum:

  sum = sum + digit.

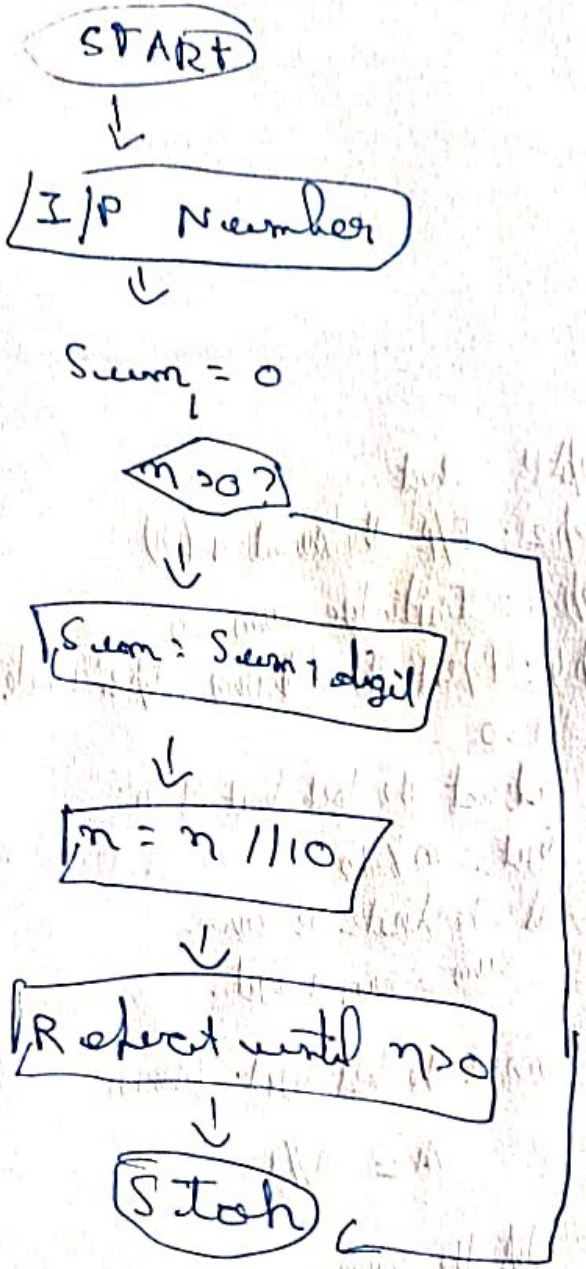
- Remove the last digit from n:

  n = n // 10

Step 5 : print the sum

Step 6 : End

Flowchart:


START
I/P Number
Sum = 0
n > 0 ?
Sum = Sum + digit
n = n // 10
Repeat until n > 0
Stop