Ex. No.: 1

Date: 25/9/24

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 : read the side of the square

step 3 : multiply the side by side

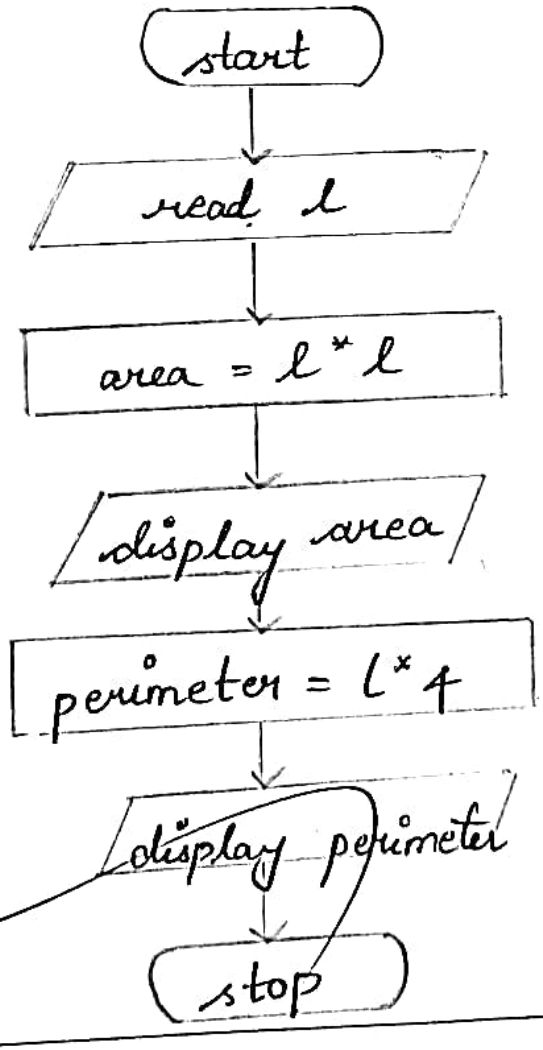
step 4 : display the area

step 5 : multiply side by 4

step 6 : display the perimeter

step 7 : stop

Flowchart:



25/9/24

Ex. No.: 2

Date: 25/9/24

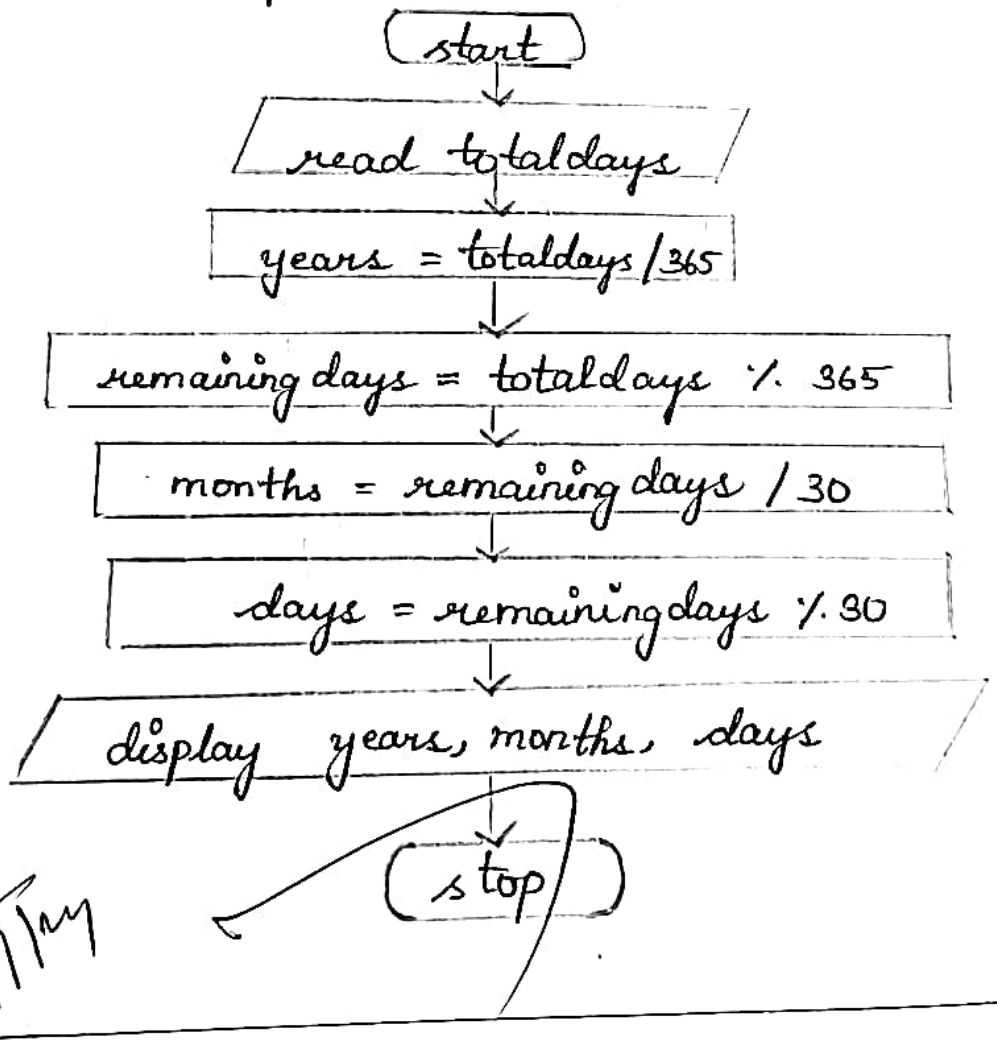
Days to Year Conversion

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

Algorithm:

step 1 : start
step 2 : read totaldays
step 3 : years = totaldays / 365
step 4 : remaining days = totaldays %. 365
step 5 : months = remaining days / 30
step 6 : days = remaining days %. 30
step 7 : display years, months and days
step 8 : stop

Flowchart:



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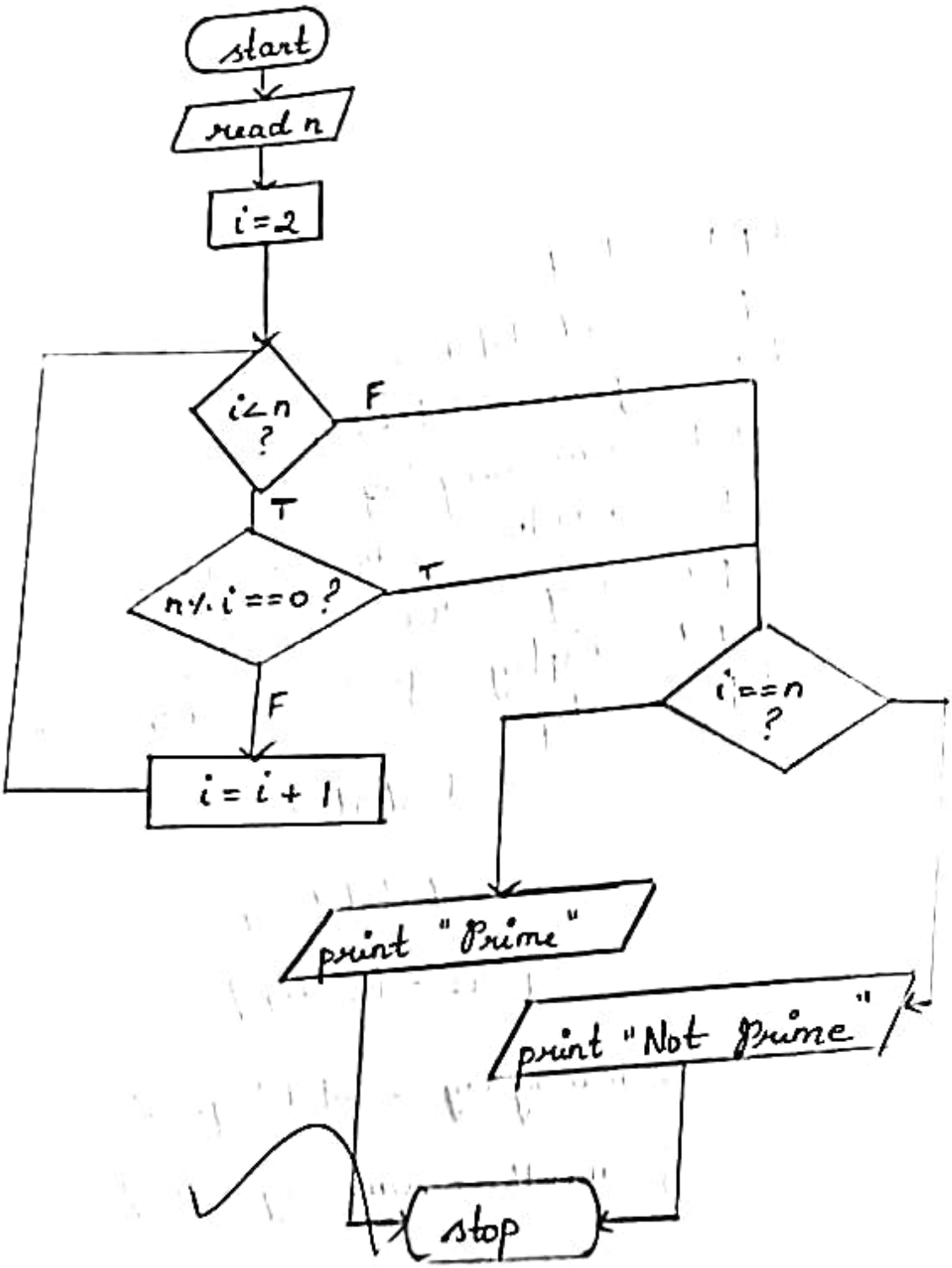
start
read n
i=2
i<n ?
F
T
n%i==0 ?
T
F
i = i + 1
i==n ?
print "Prime"
print "Not Prime"
stop

Ex. No.: 3 Date: 25/9/24

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 : read the number n
step 3 : initialize i = 2
step 4 : check if i<n, n%i==0, i=n then move to step 6.
step 5 : If the conditions are false move to step 7
step 6 : display "Prime" and move to step 8
step 7 : display "Not Prime" and move to step 8
step 8 : stop

Flowchart:

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Ex. No.: 4

Date: 27/9/24

Leap Year

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

Algorithm:

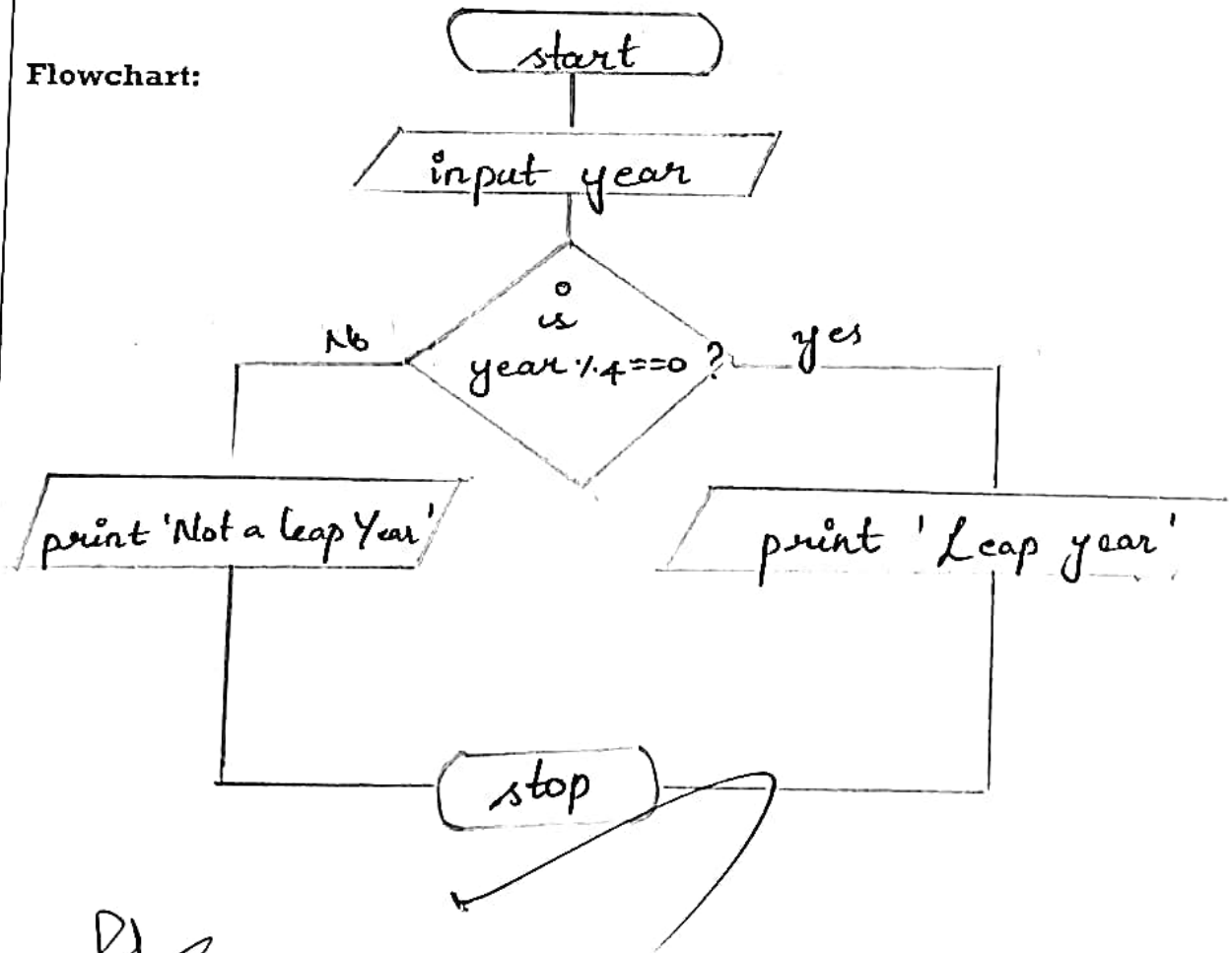
step 1 : start

step 2 : read year

step 3 : If year % 4 == 0, then print "Leap year" else print "Not a leap year".

step 4 : stop

Flowchart:



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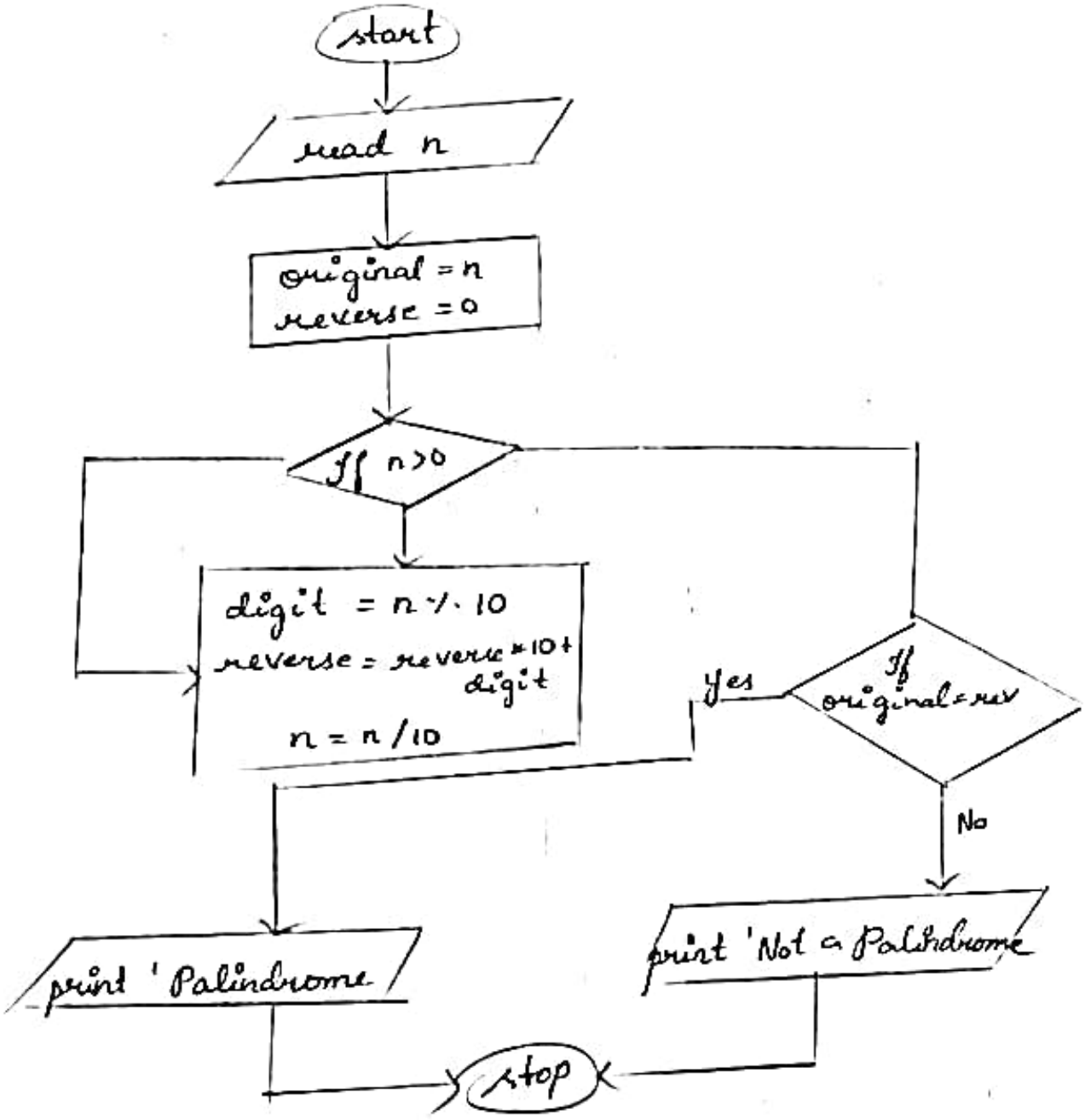

start
read n
original = n
reverse = 0
If n>0
digit = n % 10
reverse = reverse * 10 + digit
n = n / 10
If original=rev
Yes
No
print 'Palindrome'
print 'Not a Palindrome'
stop

Date: 27/9/24

Ex. No.: 5

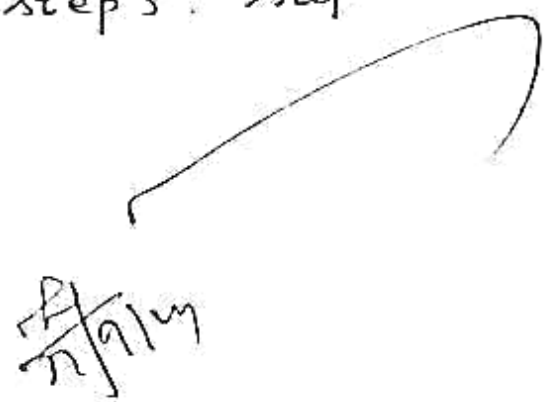
Palindrome Number

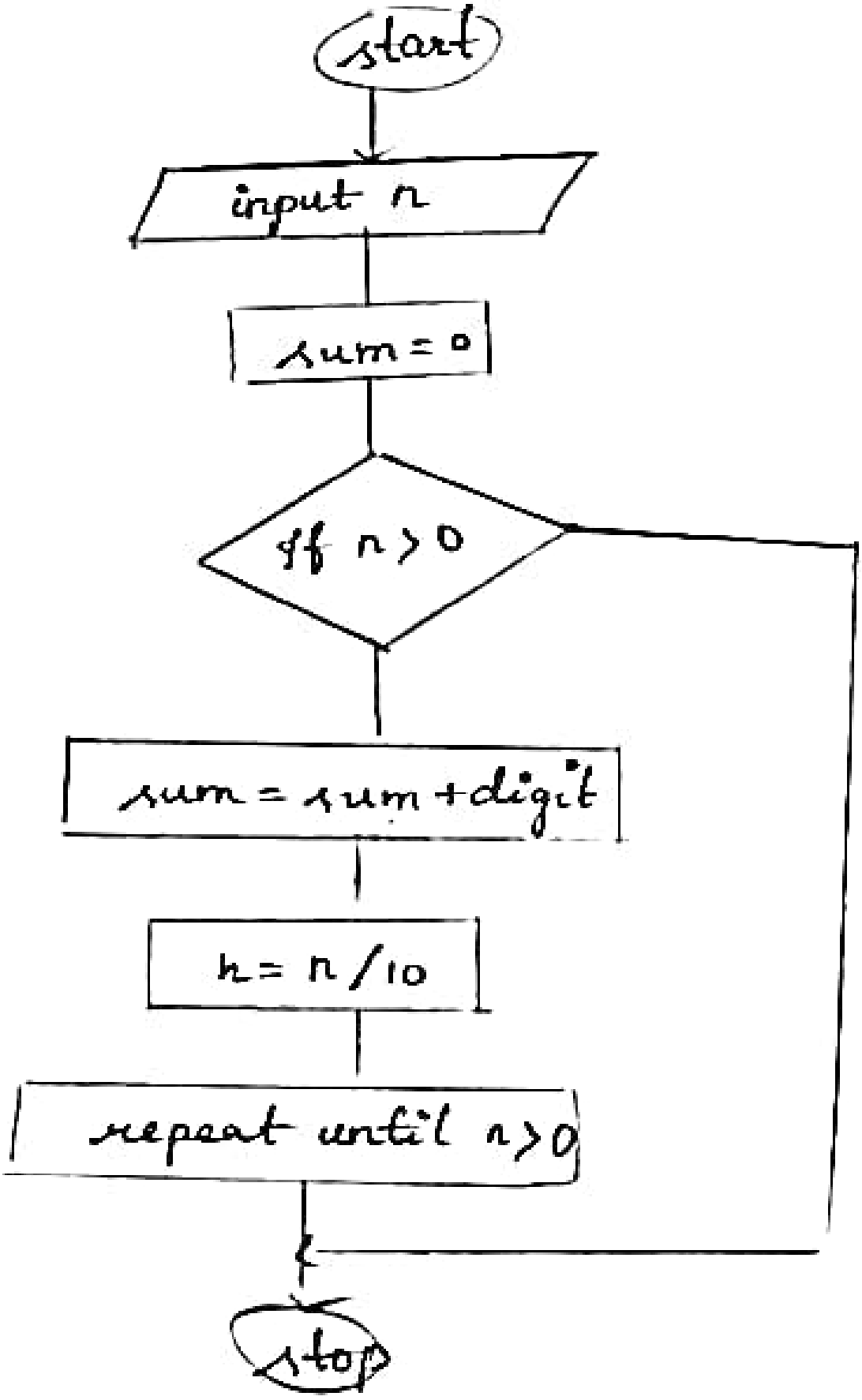
Write an Algorithm and draw a Flowchart to check whether the given number is palindrome number or not.

Algorithm:

step1 : start
step2 read num
step 3 : initialize rev = 0 while num > 0
digit = num % 10
rev = (rev * 10) + digit
num = num // 10
step4 : compare the original with rev
If they are same print "Palindrome" else "Not a Palindrome"
step 5 : stop

Flowchart:




start
input n
sum = 0
if n > 0
sum = sum + digit
n = n / 10
repeat until n > 0
stop

Ex. No.: 6 Date: 27/9/24

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 : read num
step 3 : initialize sum = 0
step 4 : remainder = num % 10
sum = sum + remainder
n = n * 10
step 5 : if (n > 0) then go to step 4
else go to step 6
step 6 : print sum
step 7 : stop

Flowchart: