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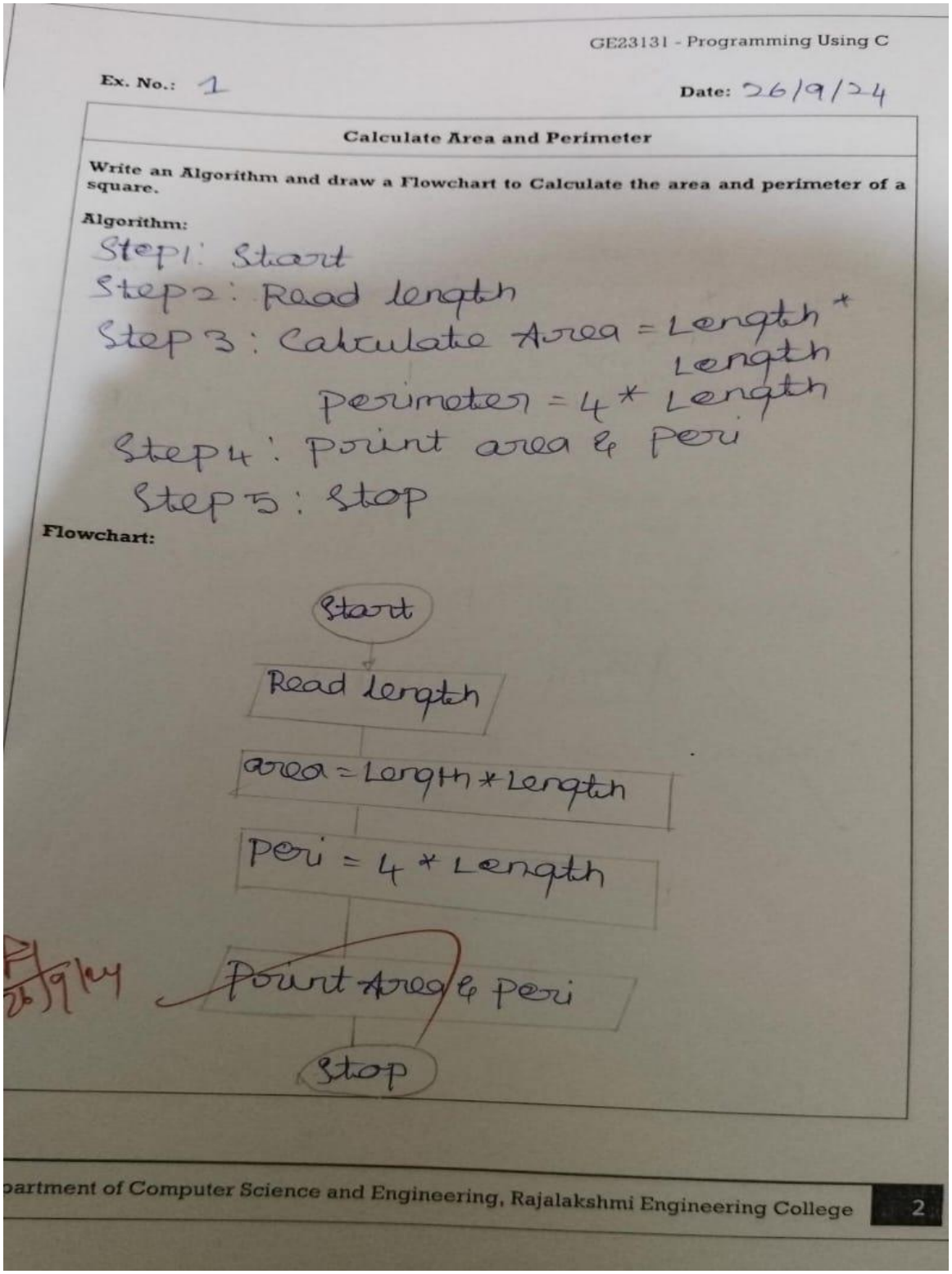
WEEK-0



GE23131 - Programming Using C

Ex. No.: 1 Date: 26/9/24

Calculate Area and Perimeter

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

Algorithm:

Step1: Start
Step2: Read length
Step 3: Calculate Area = Length * Length
perimeter = 4 * Length
Step 4: Print area & peri
Step 5: Stop

Flowchart:

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Ex. No.: 2

Date: 26/9/24

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 days, months, years
Step 3: Compute years = Total days / 365
Step 4: [Compute remaining days]
Rem = total days % 365
Step 5: [Compute months]
months = Rem / 30

Flowchart:

Step 6: [Compute remaining days]
Day = Rem % 30
Step 7: Print "years, months"
Step 8: End.

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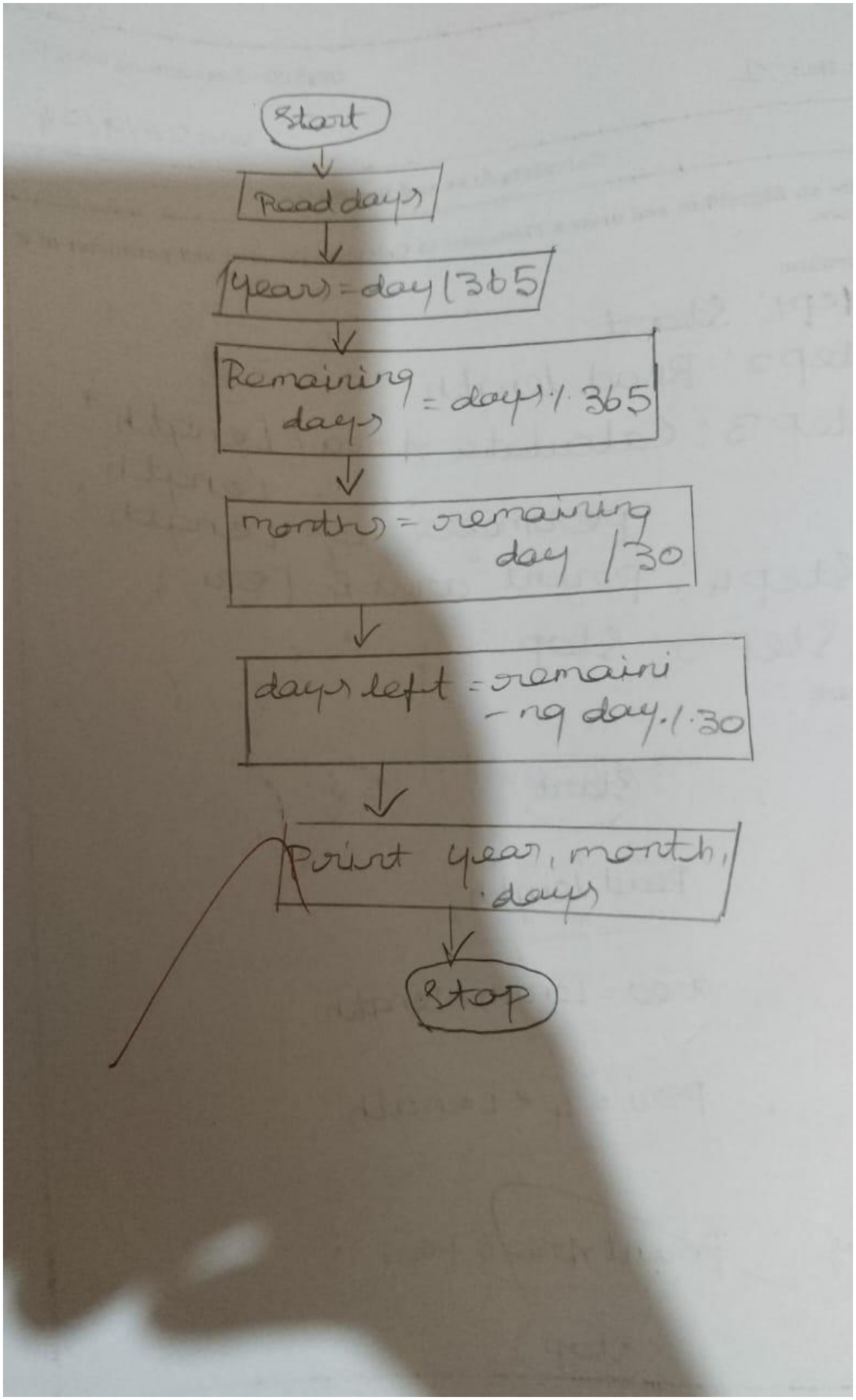
Start
Read days
years = day / 365
Remaining days = days % 365
months = remaining day / 30
days left = remaining day % 30
Print year, month, days
Stop

Ex. No.: 3 Date: 26/9/24

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 n
Step 3: if i=2 and i<n, goto Step 7
Step 4: i.1.2 = 0, goto Step 7
Step 5: i = n
Step 6: i = i+1, goto Step 3
Step 7: if i=n, Print "not prime",
Print "prime"
Step 8: Stop

Flowchart:

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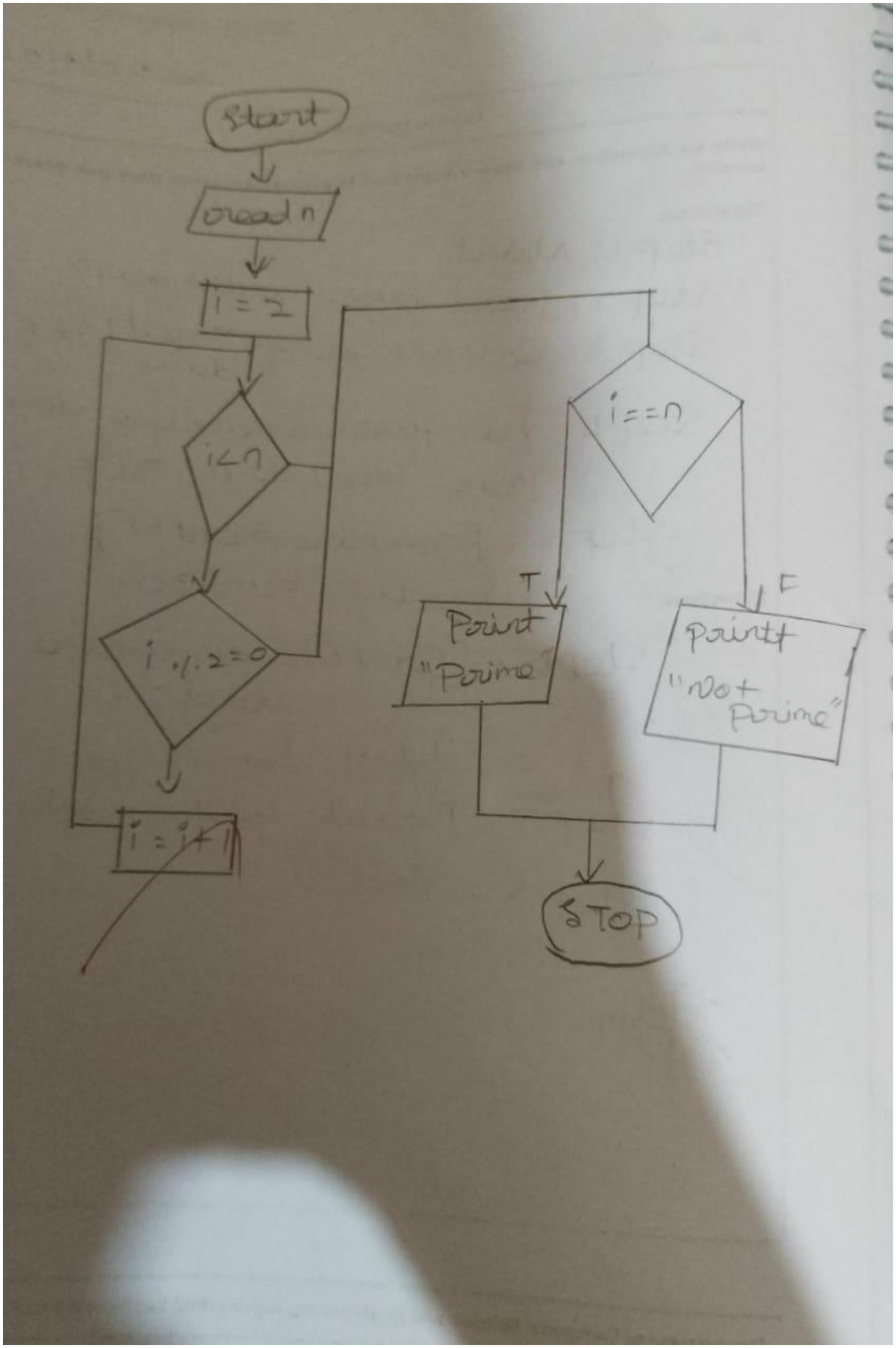

Start
Read n
i = 2
i<n
i%i==0
i = i+1
i==n
T
F
Print "Prime"
Print "Not Prime"
STOP

Ex. No.: 4 Date: 28/9/24

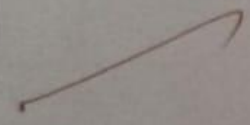
Leap Year

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

Algorithm:

Step1 : Start
Step2 : Read year
Step3 : If year % 4 == 0 then it Leap year
Step4 : year % 4 != 0 then Not leap year
Step5 : Print "Leap year" or "Not leap year"
Step6 : Stop

Flowchart:



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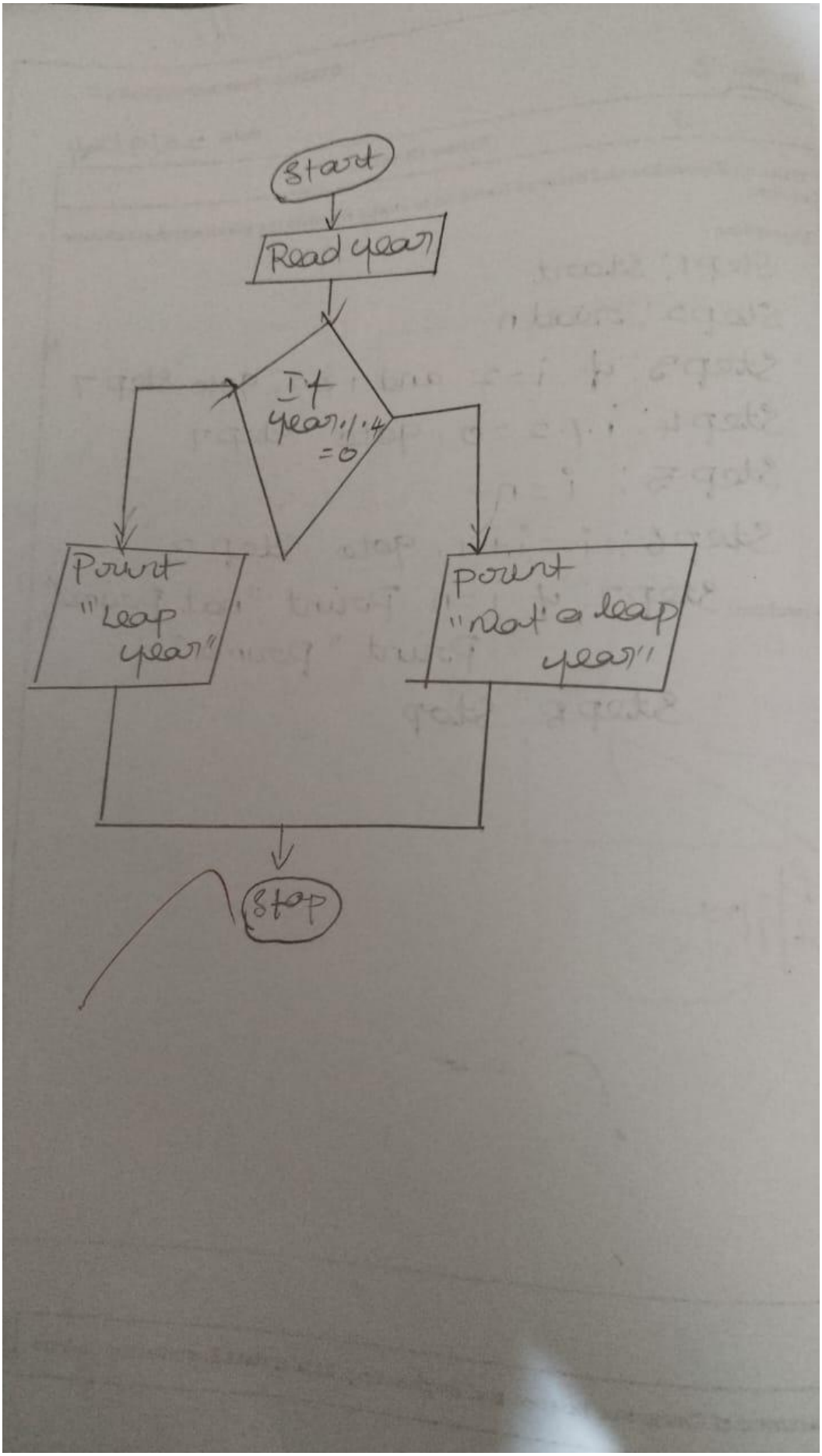

Start
Read year
If year%4 =0
Print "Leap year"
print "Not a leap year"
Stop

Ex. No.: 5

Date: 28/9/24

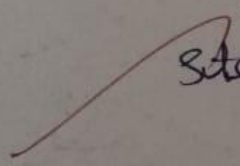
Palindrome Number

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 n
Step 3: Declare temp = n, rev = 0
Step 4: rem = n % 10
rev = rev * 10 + rem
n = n / 10
Step 5: if (n > 0), goto Step 4 to 6
Step 6: If temp = rev then
print "Palindrome number"
Step 7: print "Not Palindrome number"
Step 8: Stop

Flowchart:



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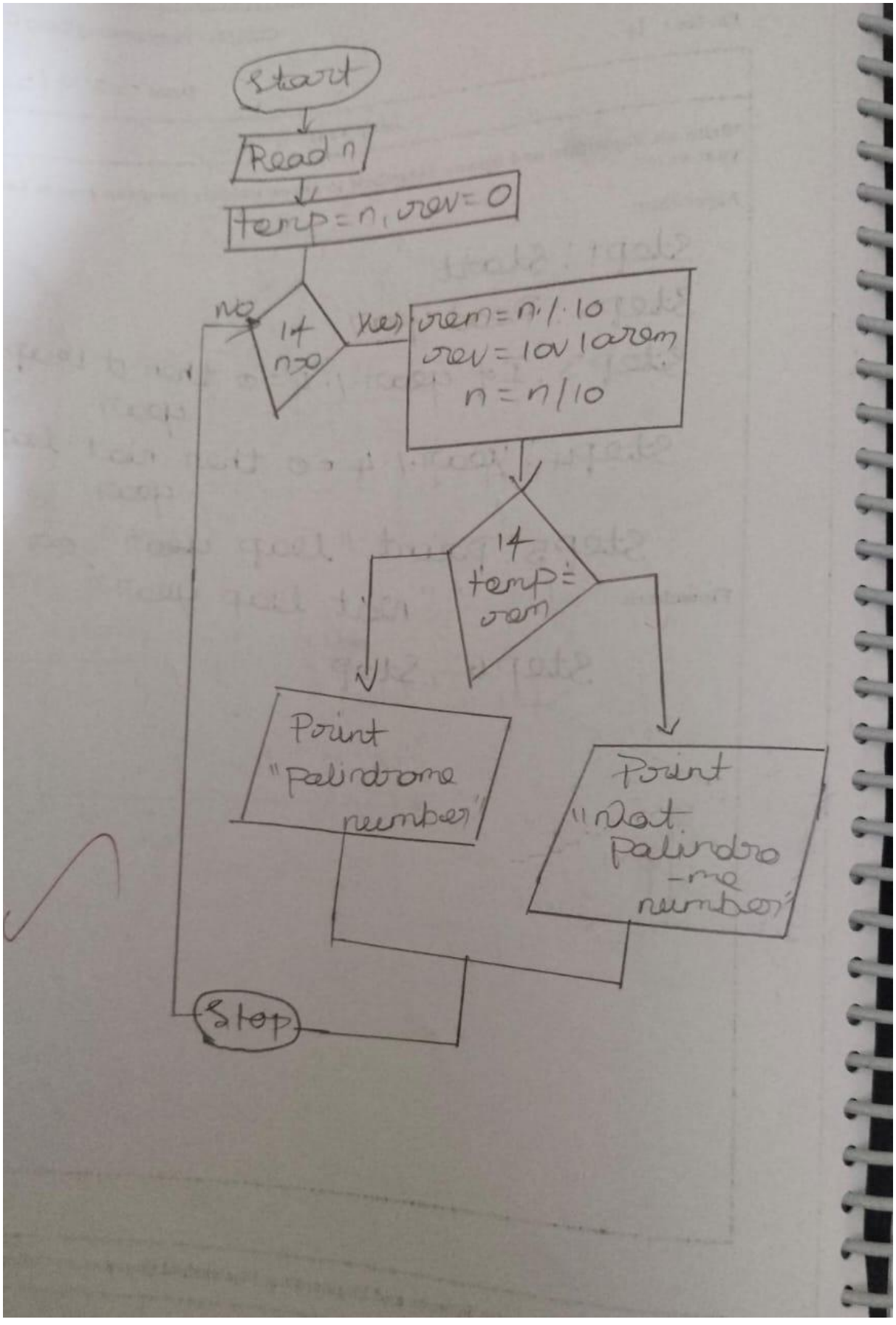
Start
Read n
temp = n, rev = 0
If n>0
No
Yes
rem = n%10
rev = rev*10+rem
n = n/10
If temp = rem
Print "palindrome number"
Print "Not palindrome number"
Stop

Ex. No.: 6 Date: 28/9/24

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 n

Step 3 : S = 0, m = n

Step 4 : Loop until n = 0

r = n % 10

S = S + r

n = n / 10

Step 5 : If n != 0, goto step4

Else Print "m, S"

Step 6 : Stop

Flowchart:

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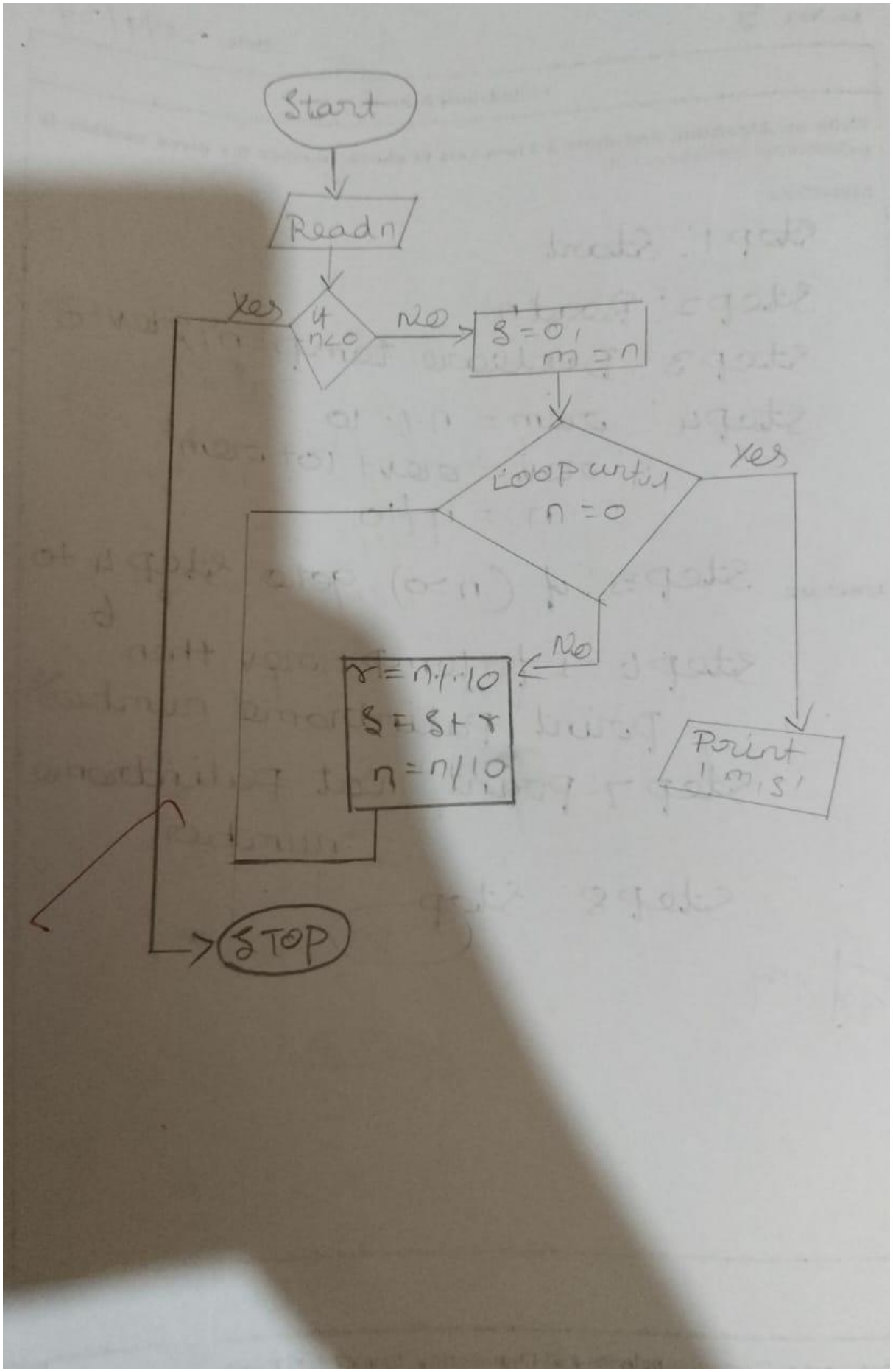
Start
Read n
Yes
if n<0
No
s=0,
m=n
Loop until
n=0
Yes
No
r=n%10
s=s+r
n=n/10
Print
m,s
STOP