Ex. No.: 1

Date: 25/10/24

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 - Input length (L)

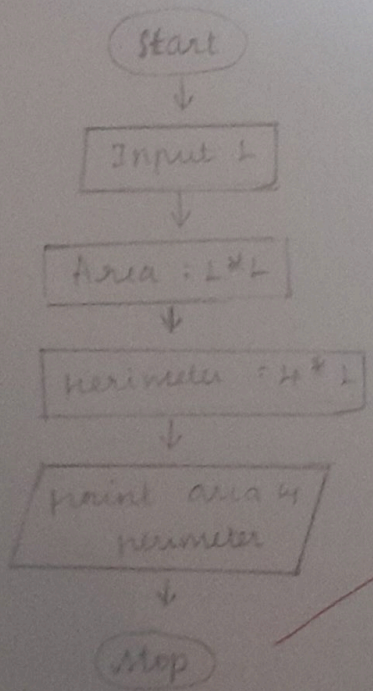
Step 3 - Area A = L * L

Step 4 - Calculate perimeter P = 4 * L

Step 5 - print area and perimeter

Step 6 - stop

Flowchart:



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Ex. No.: 2

Date: 25/10/24

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 the number of days from the user as n

Step 3 - To calculate the number of yrs, years = $\frac{n}{365}$

Step 4 - To calculate $1 \cdot n$ to get remaining days

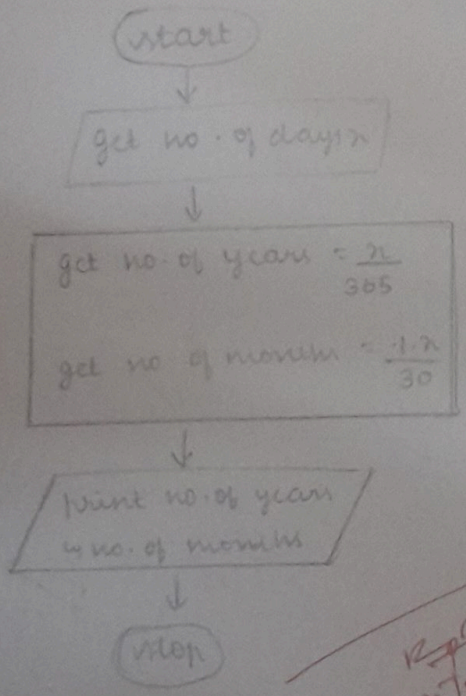
Step 5 - To calculate the remaining days together

no. of months = $\frac{1 \cdot n}{30}$

Step 6 - print number of years & no. of months

Step 7 - stop

Flowchart:



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Ex. No.: 3 **Date:** 25/10/24

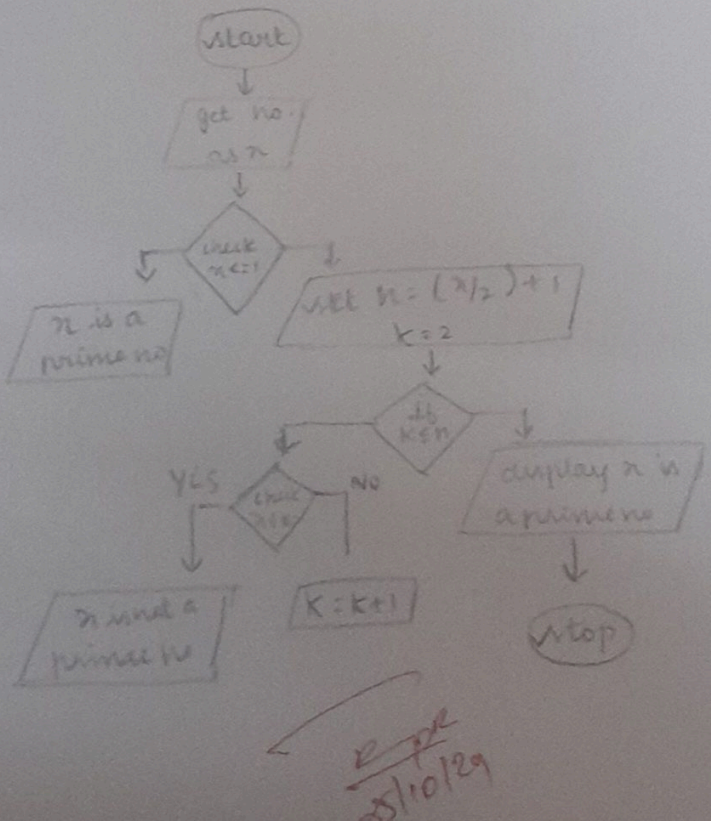
Prime Number

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

Algorithm:

step1 - start
step2 - get a number from the user as n
step3 - check whether $n <= 1$, otherwise go to 5
step4 - display n is not a prime number
step 5 - set $n = (n/2) + 1$, $k = 2$
step6 - if $k \leq n$ otherwise go to 10
step7 - check $n \% k = 0$, otherwise go to 9
step 8 - Display n is not a prime number, go to 11
step 9 - $k = k + 1$, go to 6
step 10 - display n is a prime number
step 11 - stop

Flowchart:



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Ex. No.: 4

Date: 25/10/24

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 the year from the user as y

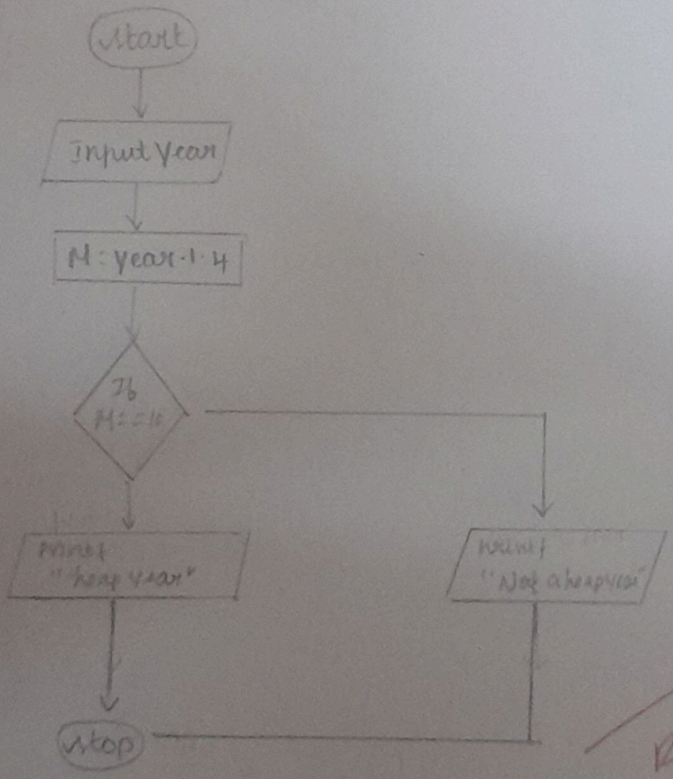
Step 3 - Check whether y%4 == 0, otherwise go to 5

Step 4 - display y is a leap year. go to 6

Step 5 - display y is not a leap year

Step 6 - Stop

Flowchart:



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Ex. No.: 5 **Date:** 25/10/24

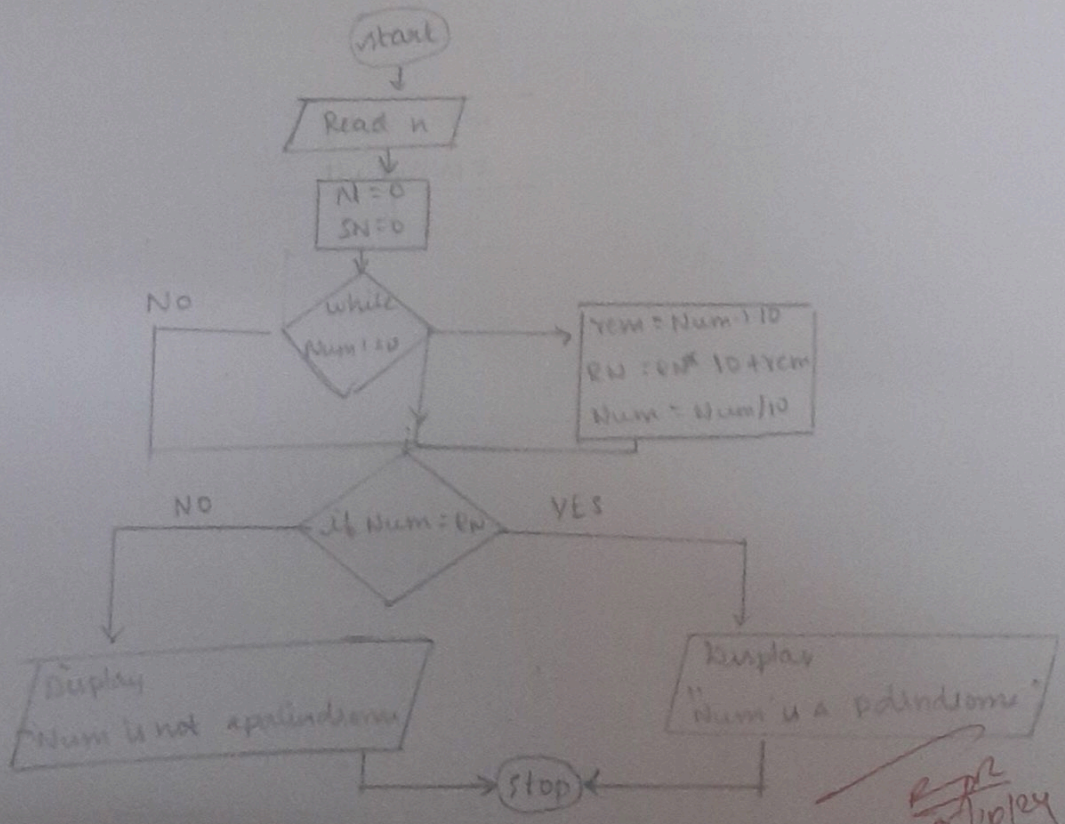
Palindrome Number

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

Algorithm:

step 1 - start
step 2 - get a number from the user as z
step 3 - set x=z ; rev=0
step 4 - check whether x is not equal to 0, otherwise go to 8
step 5 - compute k = z%10
step 6 - rev = rev * 10 + k
step 7 - z = z/10 , go to 4
step 8 - check whether y = rev, otherwise go to 10.
step 9 - display given number is palindrome go to 11
step 10 - display given number is not palindrom
step 11 - end

Flowchart:



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Ex. No.: 6

Date: 25/10/24

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 the number from the user as n

step 3 - set K = 0

step 4 - Check wheather n is not equal to 0, go to 8

step 5 - compute y = n % 10

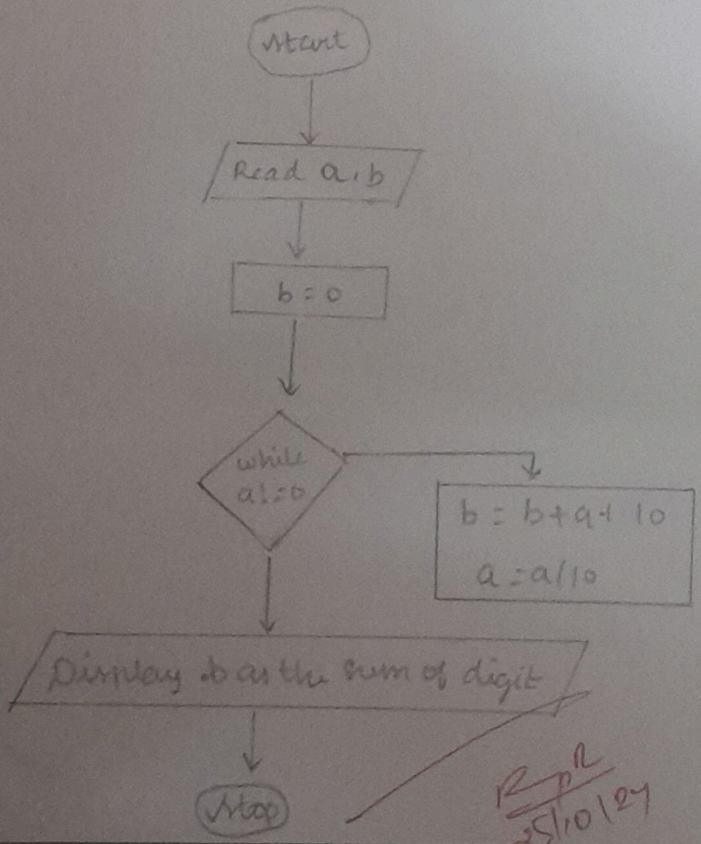
step 6 - K = K + y

step 7 - compute n = n/10, go to 4

step 8 - display K

step 9 - stop.

Flowchart:



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