Ex. No.: I

Date: 4/10/2024

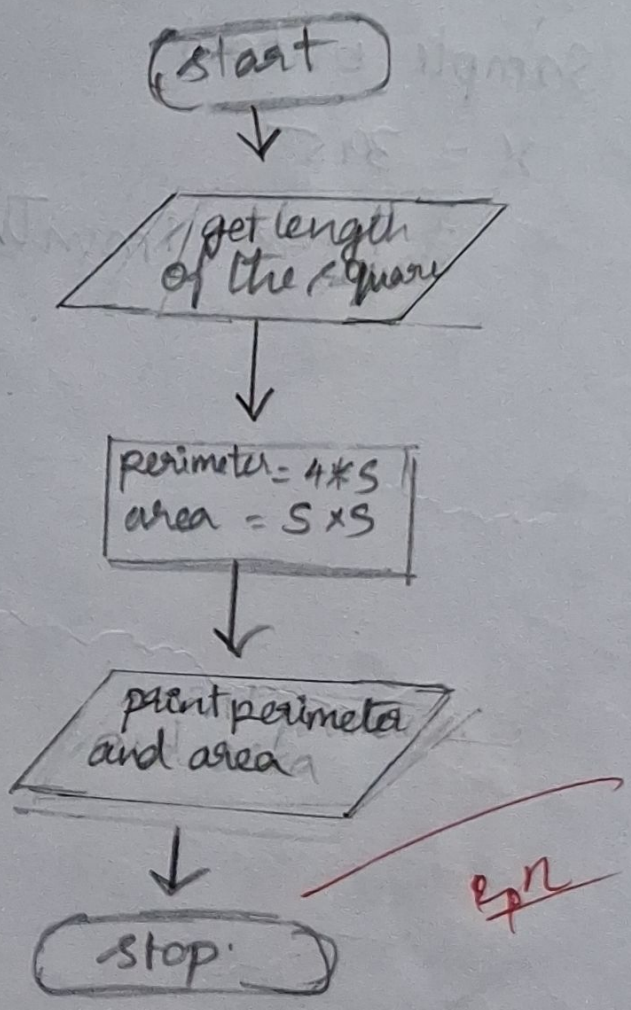
Calculate Area and Perimeter

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

Algorithm:

step1: start
step2: Get the length of the square from the user
step3: Compute the area of the square A = S x S
step4: Compute the perimeter of the square P = 4 * S
step5: Print area and perimeter of square
step6: Stop

Flowchart:



Sample output
S = 2
perimeter = 8
area = 4

Ex. No.: II

Date: 4/10/2024

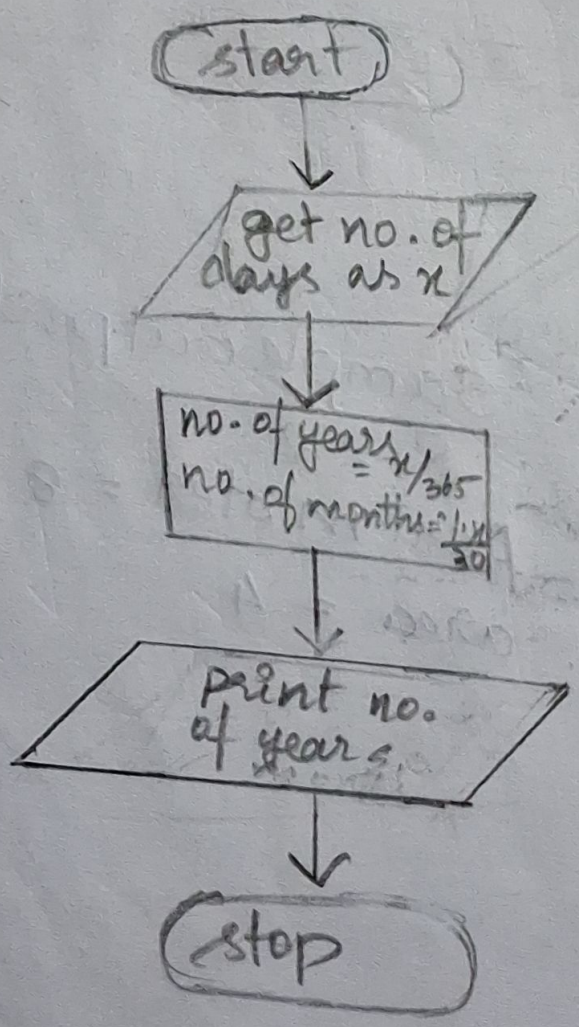
Days to Year Conversion

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

Algorithm:

step1: start
step2: Get the number of days from user as x
step3: Compute number of years; years = x/365
step4: Compute %. x to get remaining days
step5: Compute the remaining days to get number of months = %. x/30
step6: Print number of years and number of months
step7: stop

Flowchart:



Sample output

x = 395
= 1 year + 1 month

Ryl

Ex. No.: 111

Date: 4/10/2024

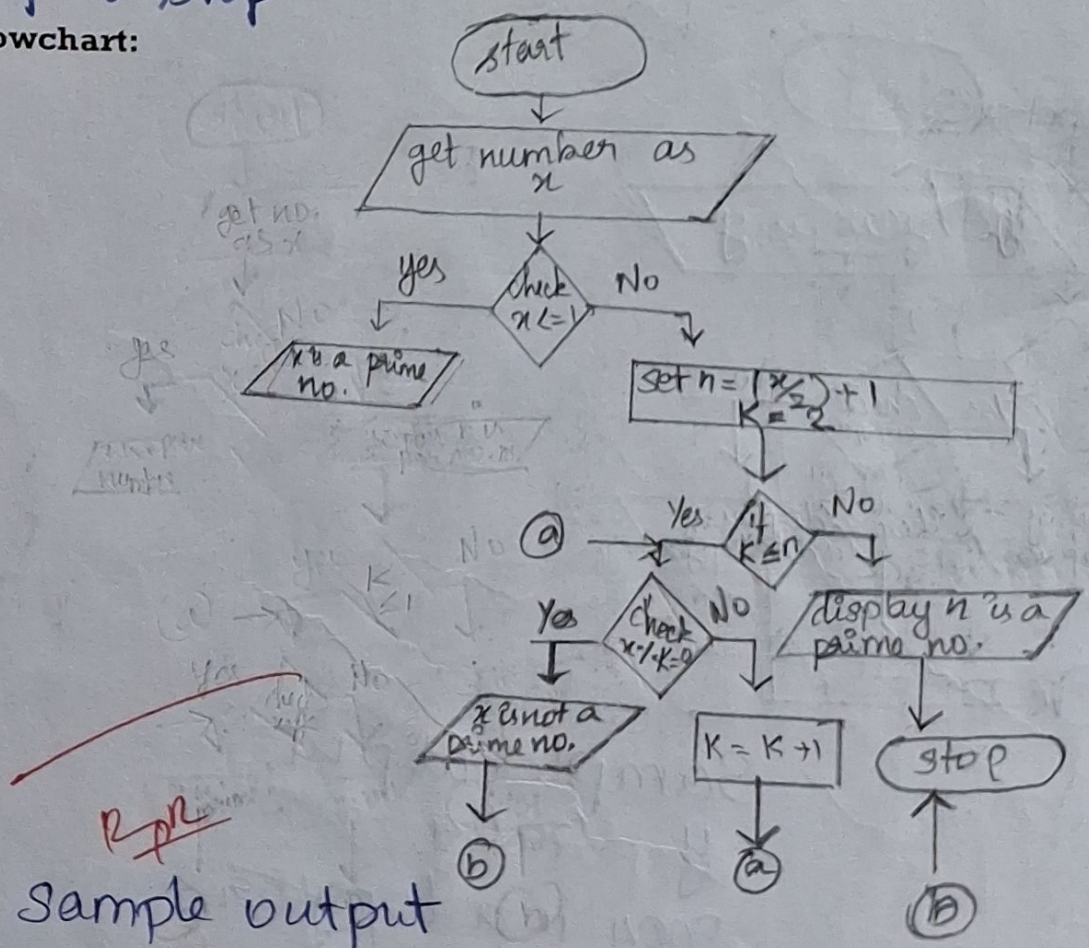
Prime Number

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

Algorithm:

step 1: start
step 2: get a number from the user as x
step 3: check whether $x <= 1$; otherwise go to 5
step 4: display x is not a prime number
step 5: set $n = (x/2) + 1$; $K = 2$
step 6: if $K <= n$ otherwise go to 10
step 7: check $x \% K = 0$, otherwise go to 9
step 8: Display x is not a prime number, go to 11
step 9: $K = K + 1$, go to 6
step 10: display x is a prime number
step 11: stop

Flowchart:



Sample output

x = 5; 5 is a prime number

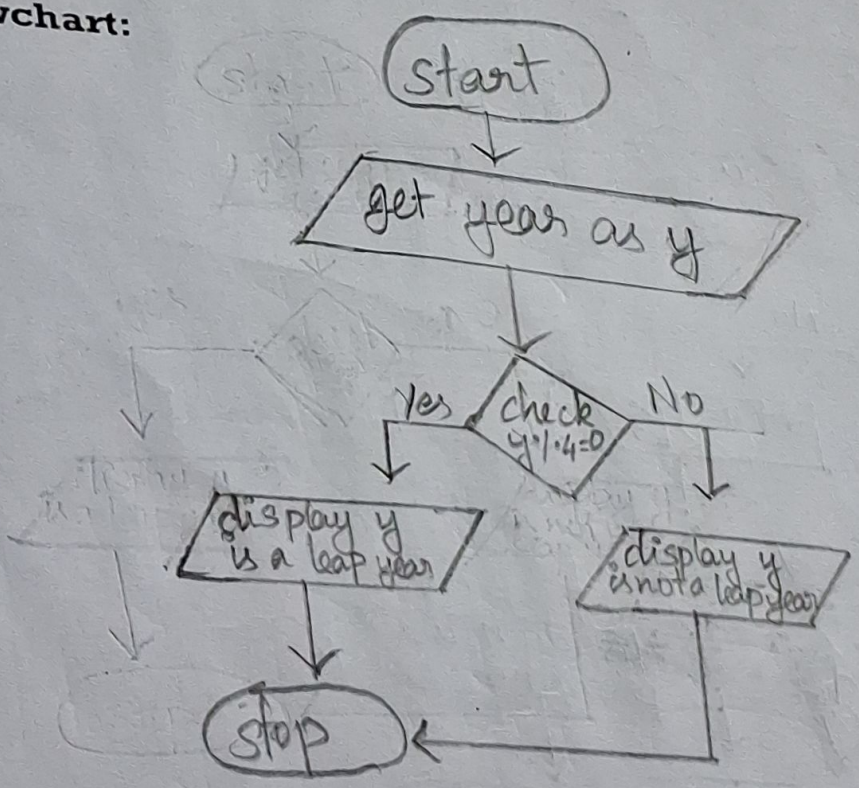
Leap Year

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

Algorithm:

step1: start
step2: get the year from the user as y
step3: check whether y%4 = 0; otherwise go to 5
step4: display y is a leap year, go to 6
step5: display y is not a leap year
step6: stop

Flowchart:



Sample output

y = 2004

2004 is a leap year

Zpn

Ex. No.: 11/1 **Date:** 4/10/2024

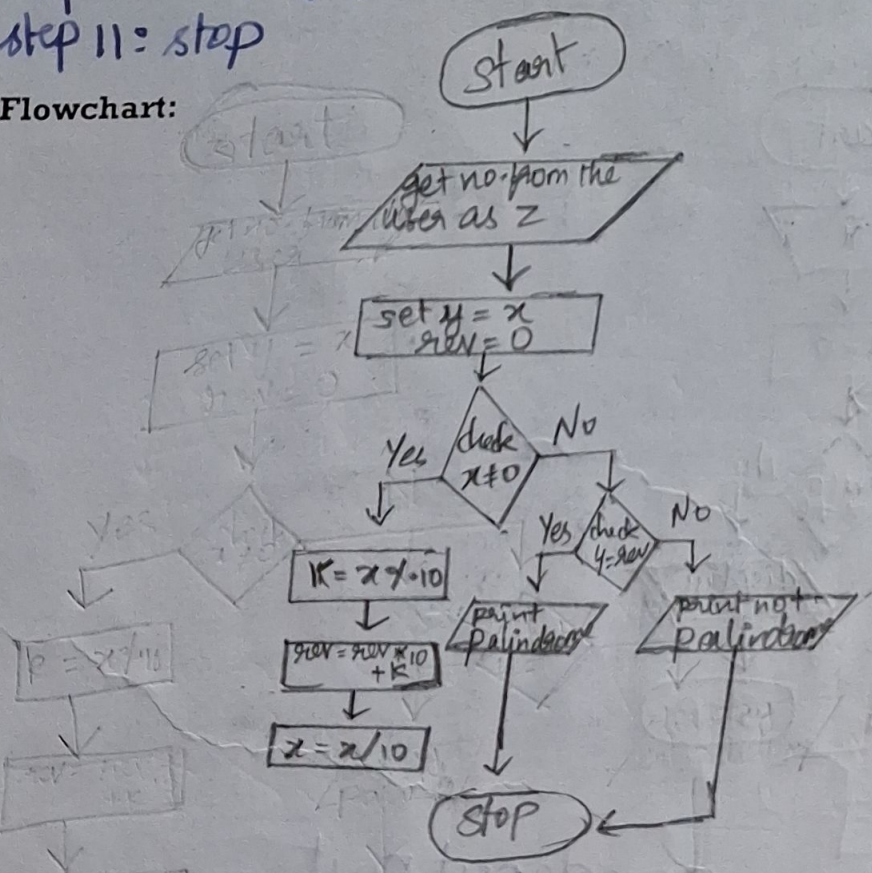
Palindrome Number

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

Algorithm:

step1: start
step2: get a number from the user as z
step3: set x=z ; rev=0
step4: check whether x is not equal to 0, otherwise go to 8
step5: compute k = z%10
step6: rev = rev*10 + k
step7: z = z/10, go to 4
step8: check whether y == rev, otherwise go to 10
step9: display given number is palindrome, go to 11
step10: display given number is not palindrome
step11: stop

Flowchart:



Sample output

x = 1221

x is a palindrome

Ex. No.: 1 VI

Date: 4/10/2024

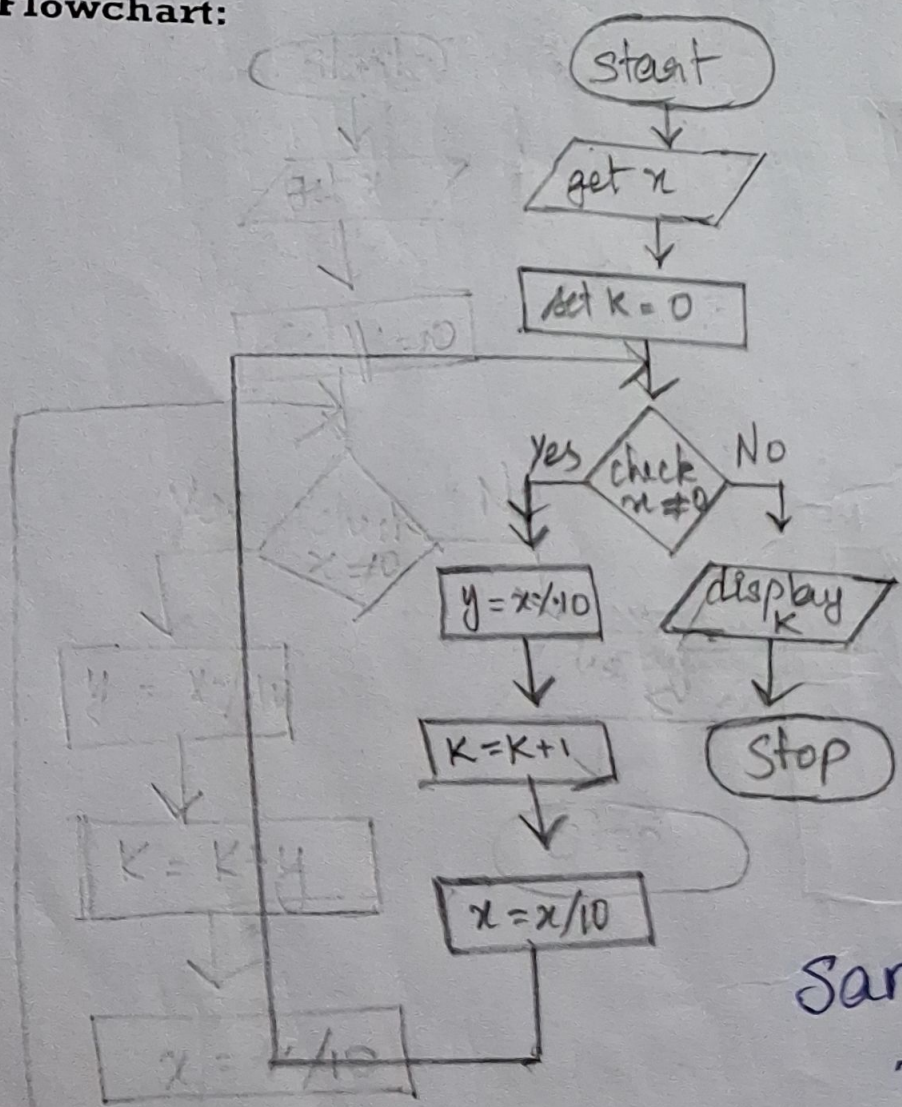
Sum of Digits

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 x
step 3: set k = 0
step 4: check weather x is not equal to 0, go to 8
step 5: compute y = x % 10
step 6: k = k + y
step 7: compute x = x/10, go to 4
step 8: display k
step 9: stop

Flowchart:



Sample output

x = 1234

sum = 10

12 pts