Ex. No: 1 Date:

Write an algorithm and draw a flowchart to calculate the area and perimeter of a square

Algorithm

step 1: start

step 2: Get the length of the square from the user

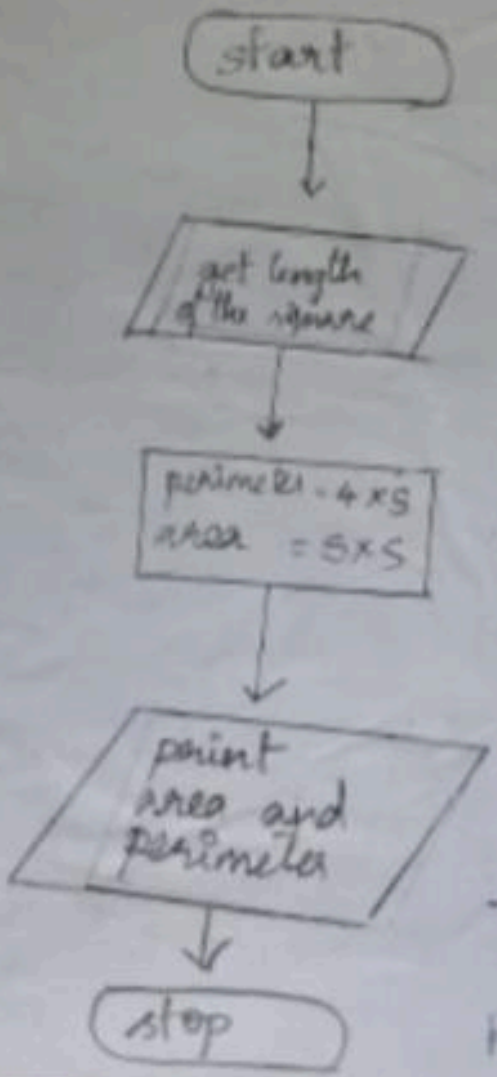
step 3: compute Find the area of the square $A = S \times S$

step 4: compute Find the perimeter of the square. $P = 4S$

step 5: Print area and perimeter of square

step 6: stop

Flow chart



Sample output.

S = 2

perimeter = 8, area = 4

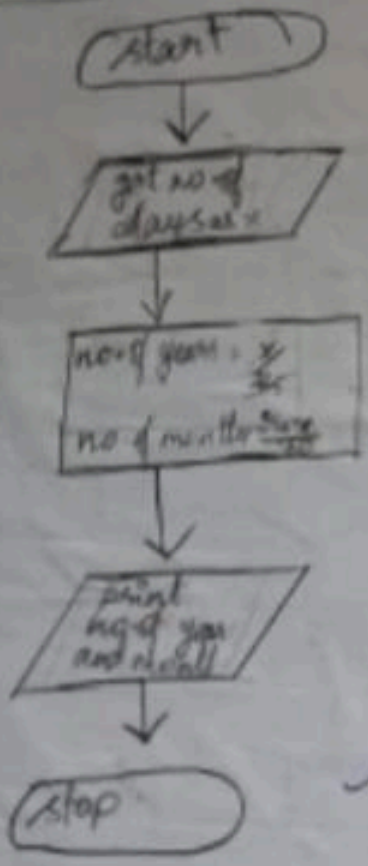
Lab No: 2

Write an algorithm and draw a flowchart to convert the given days into years and months

step1: Start
step2: Get the number of days from user as x
step3: Compute num number of years, years = $\frac{x}{365}$
step4: Compute %. x to get remaining days
step5: Compute the remaining days to get number of months = $\frac{\%.x}{30}$
step6: Print number of years and number of months
step7: stop

x/365

Flow chart



Sample output
x = 395
1 year + 1 month

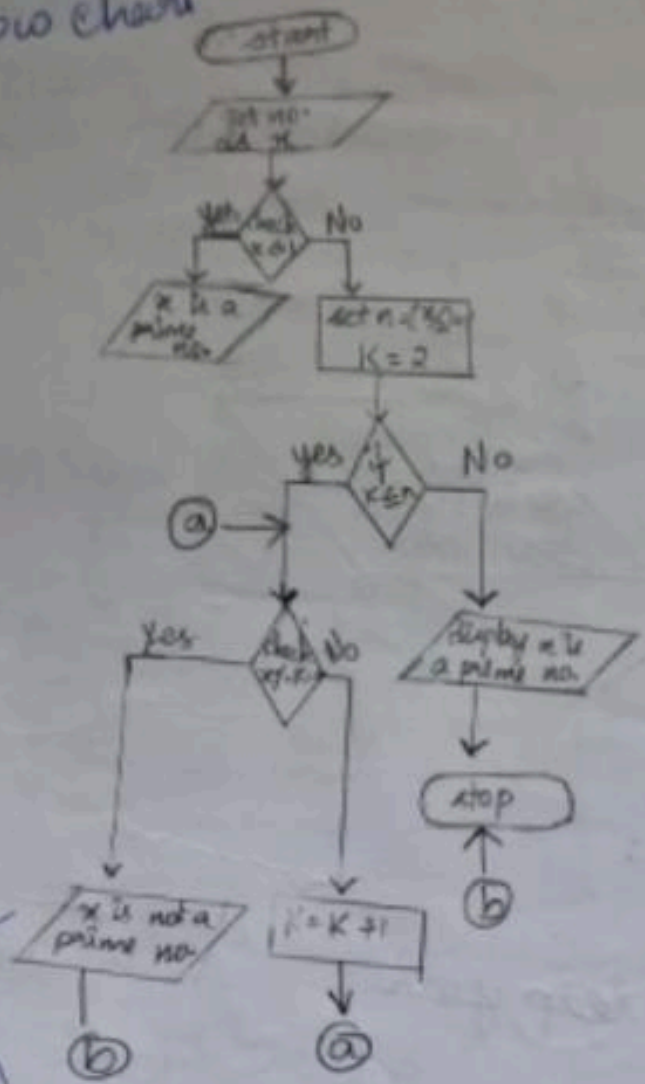
Ex. No: 3 Date: 5/10/24

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

Flow chart



Ref
04/10/24

Sample output

x - 5 ; 5 is a prime number

Ex. No: 5

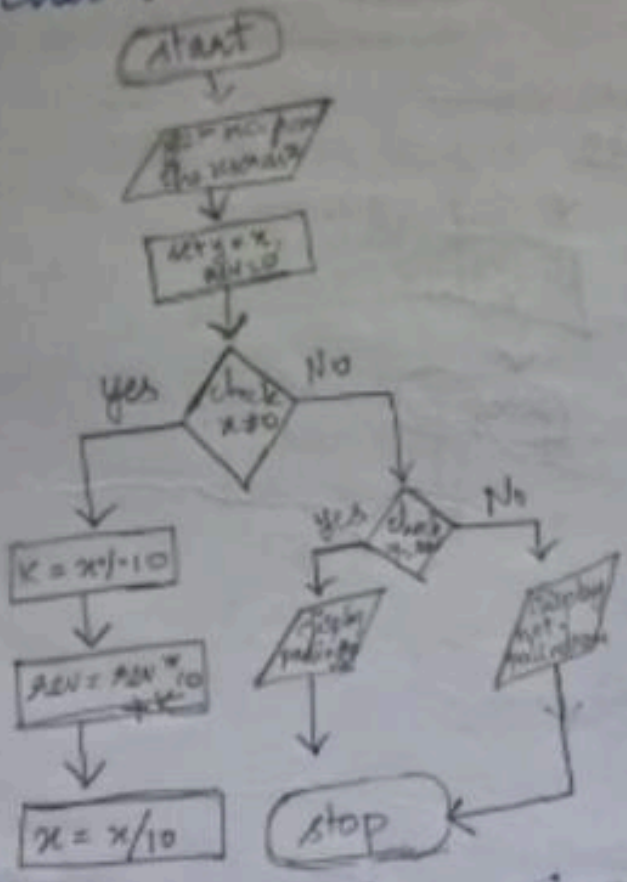
Date:

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 'x'
step 3: set x = x ; rev = 0
step 4: check whether x is not equal to 0, otherwise go to
step 5: compute K = x%10
step 6: rev = rev * 10 + K
step 7: x = x/10, go to 4
step 8: check whether x = = rev, other wise go to 10
step 9: display given number is palindrome, go to 11
step 10: display given number is not palindrome
step 11: stop

Flow chart:



Sample output

x = 1221

x is palindrome

04/10/21

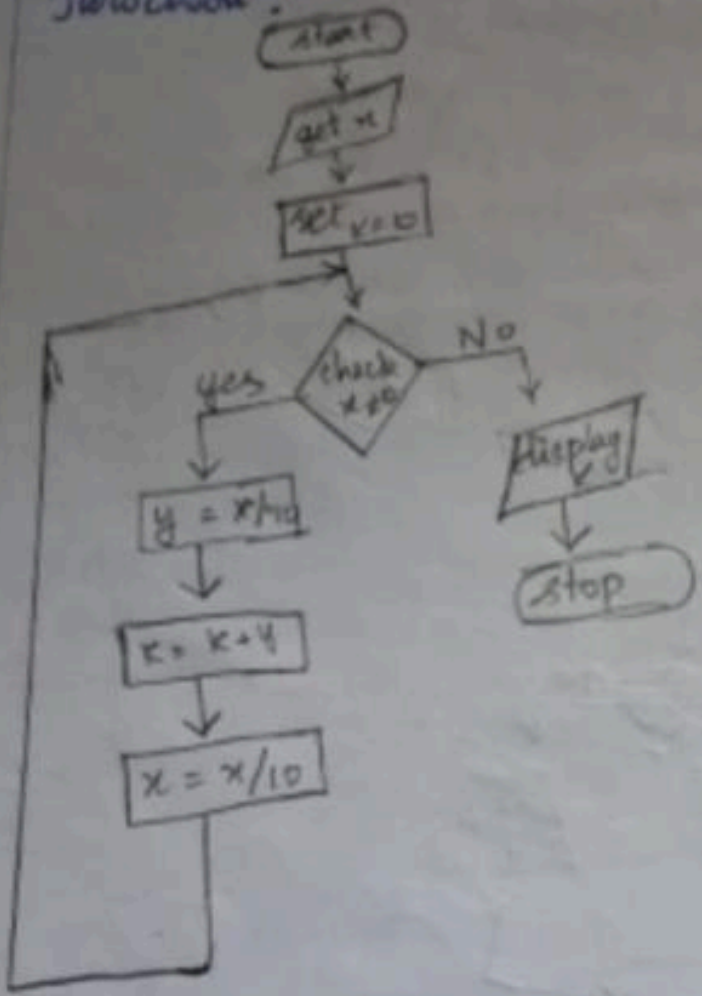
Ex.No:6 Date:

Write an algorithm and draw a flowchart to calculate the sum of digits in the given number

Algorithm

step1: start
step2: get the number from the user as x
step3: set k=0
step4: check whether x is not equal to 0, go to 5
step5: compute y = x % 10
step6: k = k + y
step7: compute x = x/10, goto 4
step8: display k
step9: stop

Flowchart:



Sample output

x = 1234
sum = 10

04/10/24

Week 0 completed.