Ex. No: 1

Date: [illegible]

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

Algorithm

step 1: start

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

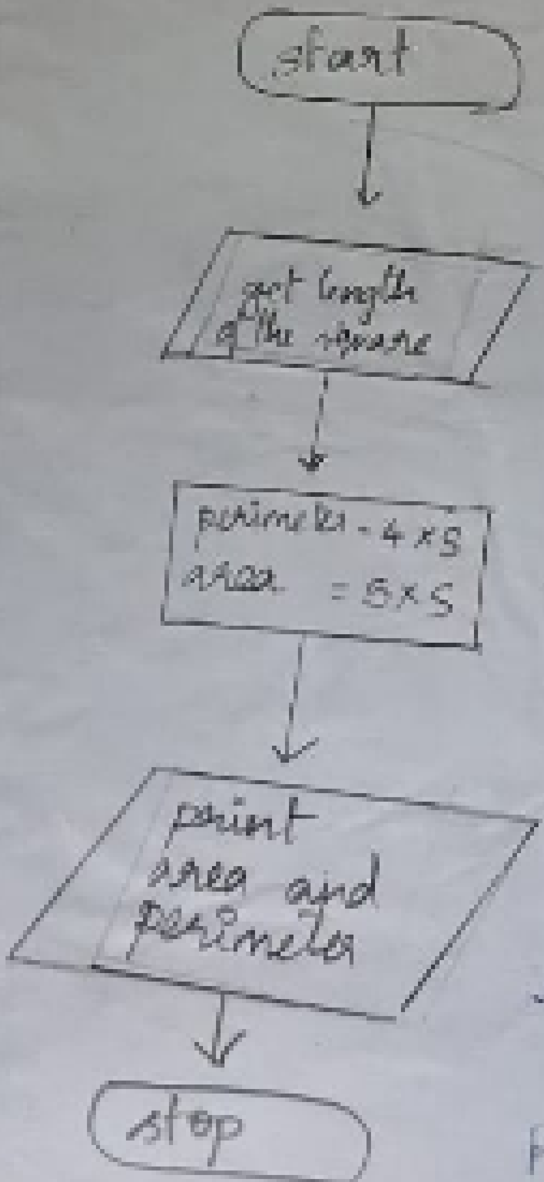
step 3: ~~Find~~ compute the area of the square $A = S \times S$

step 4: ~~Find~~ compute 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 [illegible]

Date: 3/10/24

Ex.No: 2
Write an algorithm and draw a flowchart to convert the given days into years and months

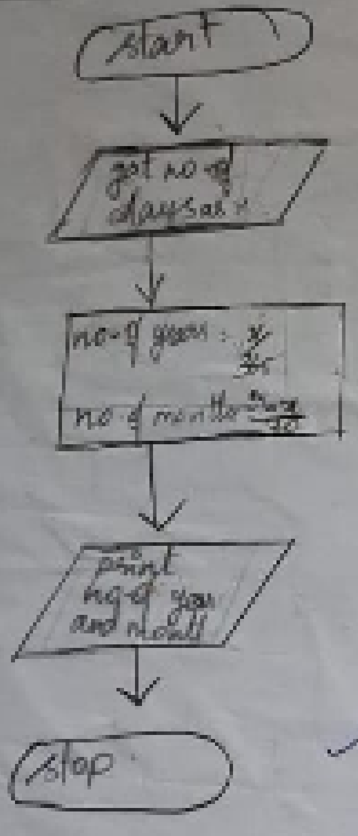
step1: Start
step2: Get the number of days from user as x
step3: Compute ~~num~~ number of years ; years = $\frac{x}{365}$
step4: Compute % x to get remaining days
step5: Compute the remaining days to get number of months = $\frac{\% x}{30}$

step6: Print number of years and number of monts

step 7: stop

$x / 365$

Flow chart



Sample output
x = 395
1 year + 1 month

Ex. No: 3

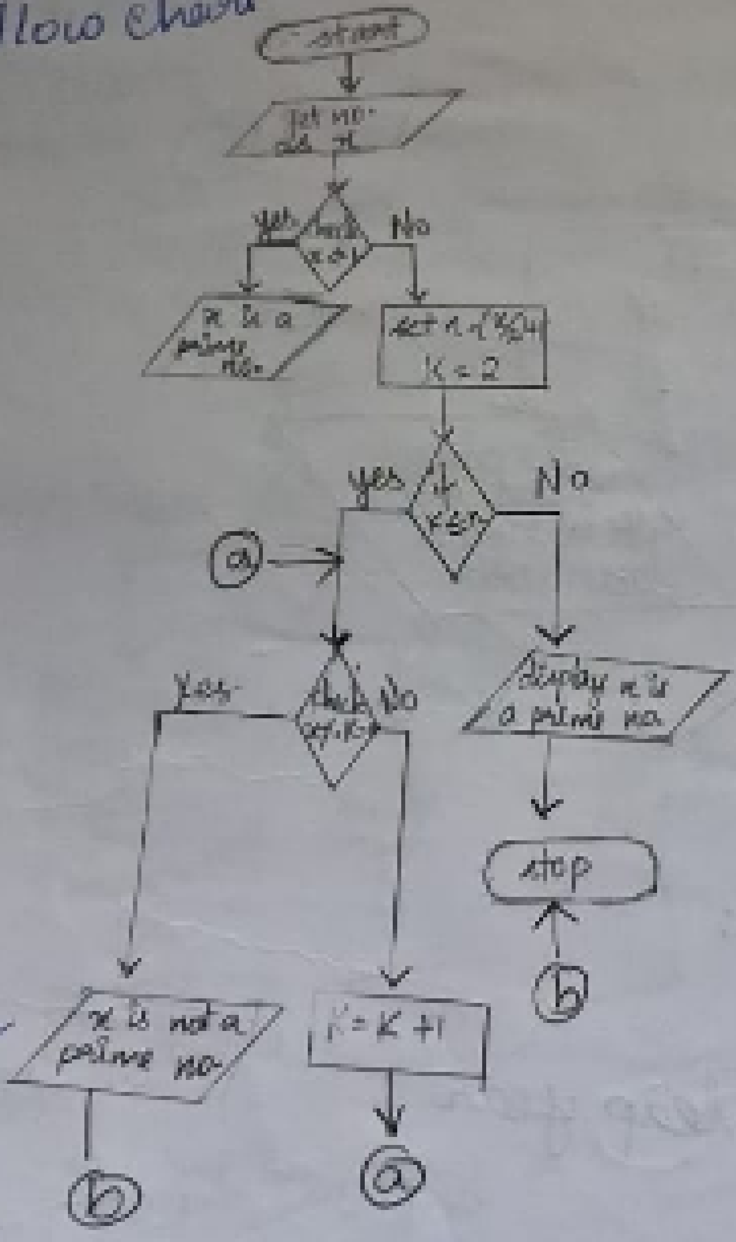
Date: 3/10/24

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 x
step3: Check whether x<=1 ; otherwise go to 5
step4: Display x is not a prime number
step5: set n=(x/2)+1, k=2
step6: if k<=n otherwise go to 10
step7: check x%k=0, otherwise go to 9
step8: Display x is not a prime number, go to 11
step9: k=k+1, go to 6
step10: display x is a prime number.
step11: stop
```

Flow chart



24/10/24

Sample output

x = 5 ; 5 is a prime number

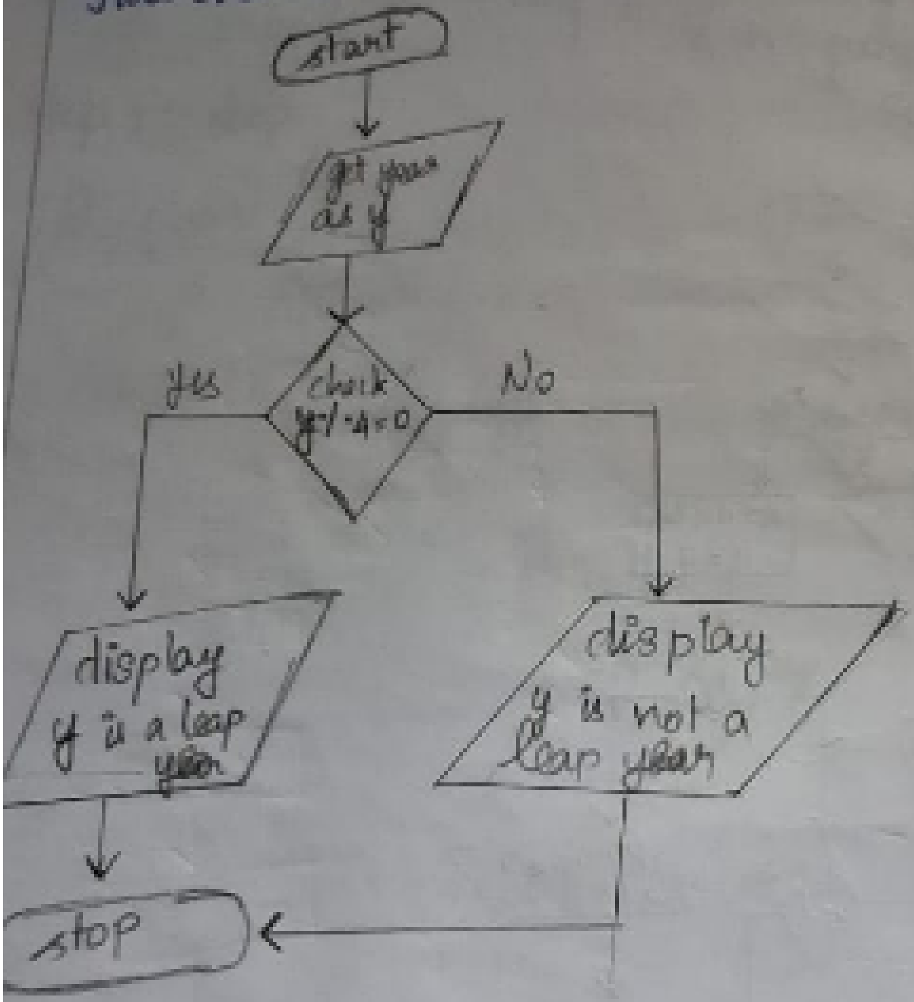
Ex. No: 4 Date: 3/10/24

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, goto 6
step 5 : Display y is not a leap year
step 6 : stop

Flowchart:



Sample output :

y = 2004
2004 is a leap year

04/10/24

Ex. No: 5

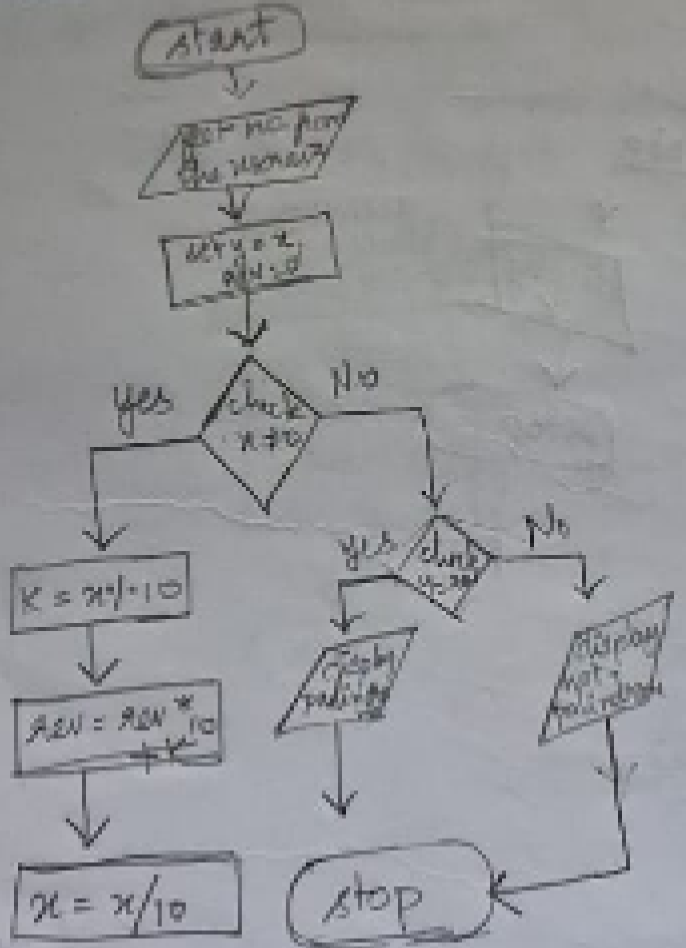
Date: [illegible]

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 : ~~st~~ x = z ; rev = 0
step 4 : check whether x is not equal to 0, otherwise go t
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

09/10/21

Ex. No: 6

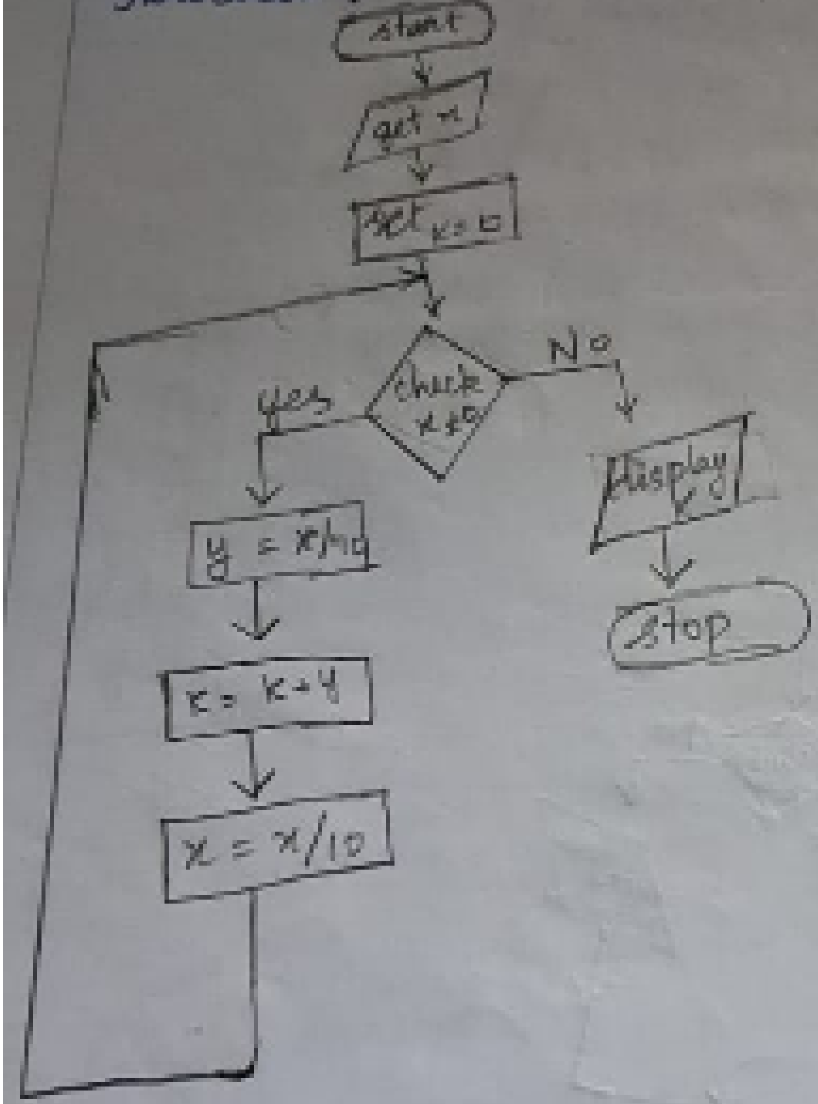
Date:

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 8
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

09/10/24

Week 0 completed.