

Ex. No.:

Date:

Calculate Area and Perimeter

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

Algorithm:

Step 1: Start

Step 2: Input the length (a) of the Square

Step 3: calculate the area $= a * a$

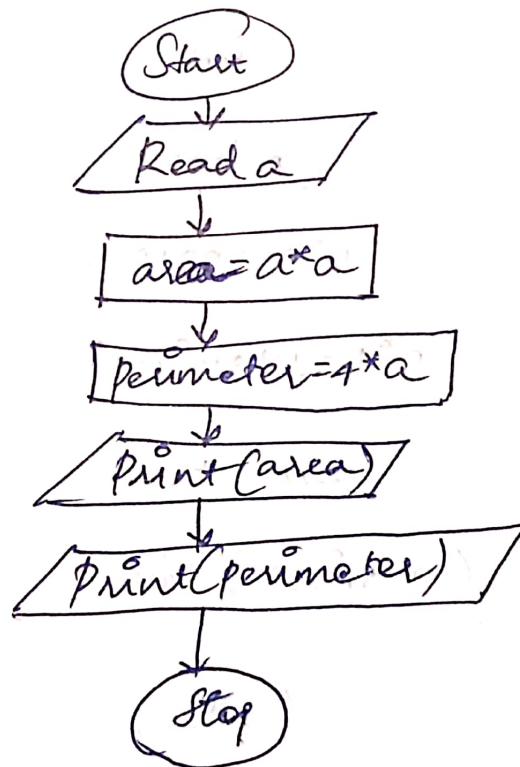
Step 4: Perimeter $= 4 * a$

Step 5: Print (perimeter)

Step 6: Print (area)

Step 7: Stop

Flowchart:



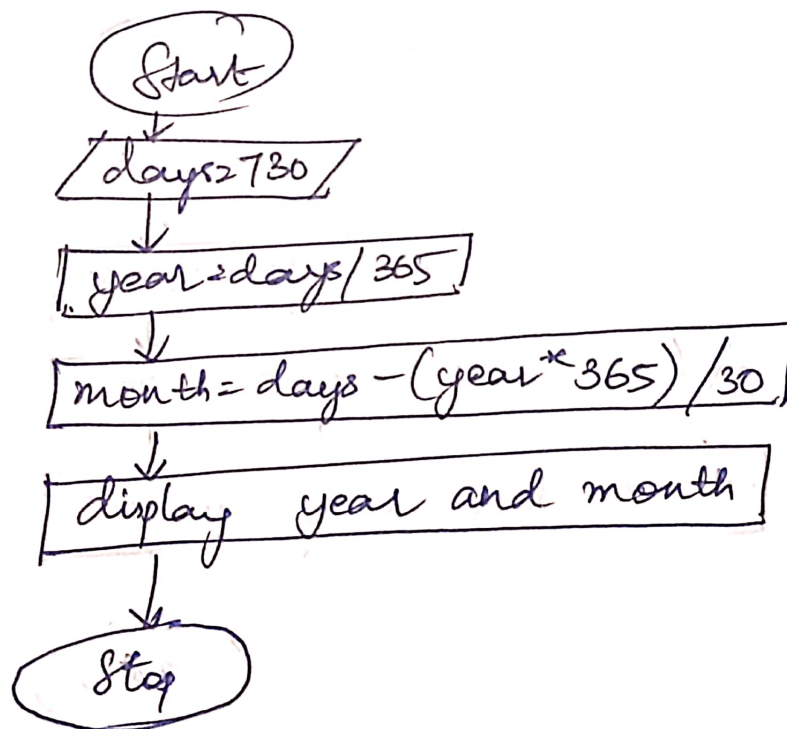
Days to Year Conversion

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

Algorithm:

Step 1: Start
Step 2: get days
Step 3: $\text{year} = \text{days} / 365$
Step 4: $\text{Month} = \text{days} - (\text{year} * 365) / 30$
Step 5: Display year and month
Step 6: Stop

Flowchart:



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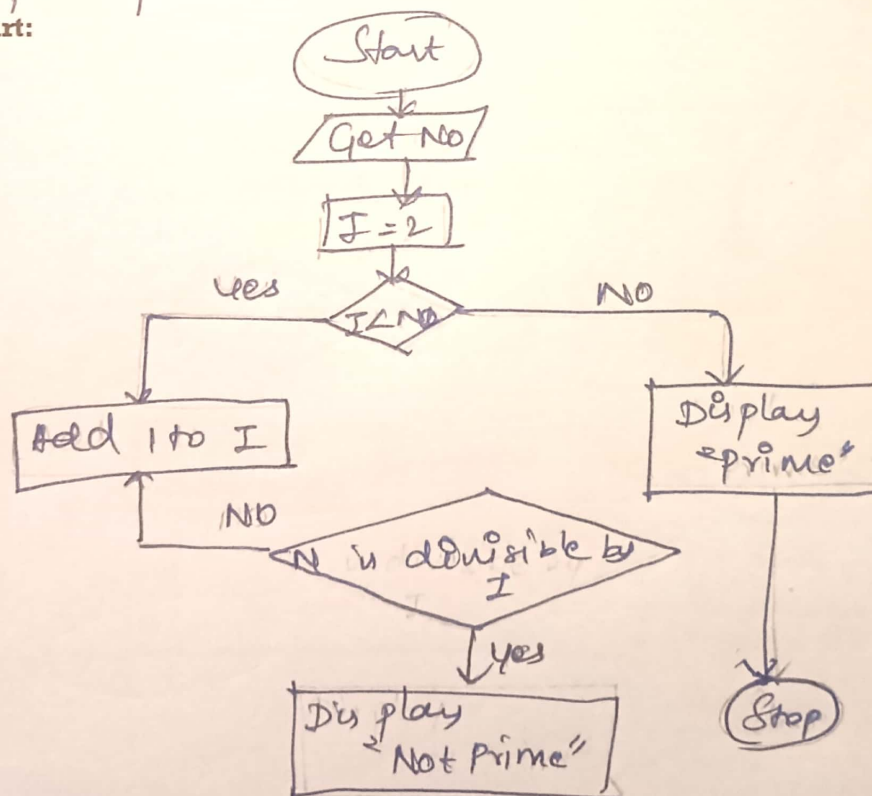
Prime Number

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

Algorithm:

Step 1: Start
 Step 2: Read Value n
 Step 3: Set i = 1 Count = 0
 Step 4: If $i \leq n$, if true go to Step 5, else go to Step 8
 Step 5: check the condition $n \% i == 0$ if true then go to Step 6, go to
 Step 6: Set Count Count + 1
 Step 7: $i = i + 1$ go to Step 4.
 Step 8: check Count, if Count = 2 display prime not
 it is not prime. display
 Step 9: Stop.

Flowchart:



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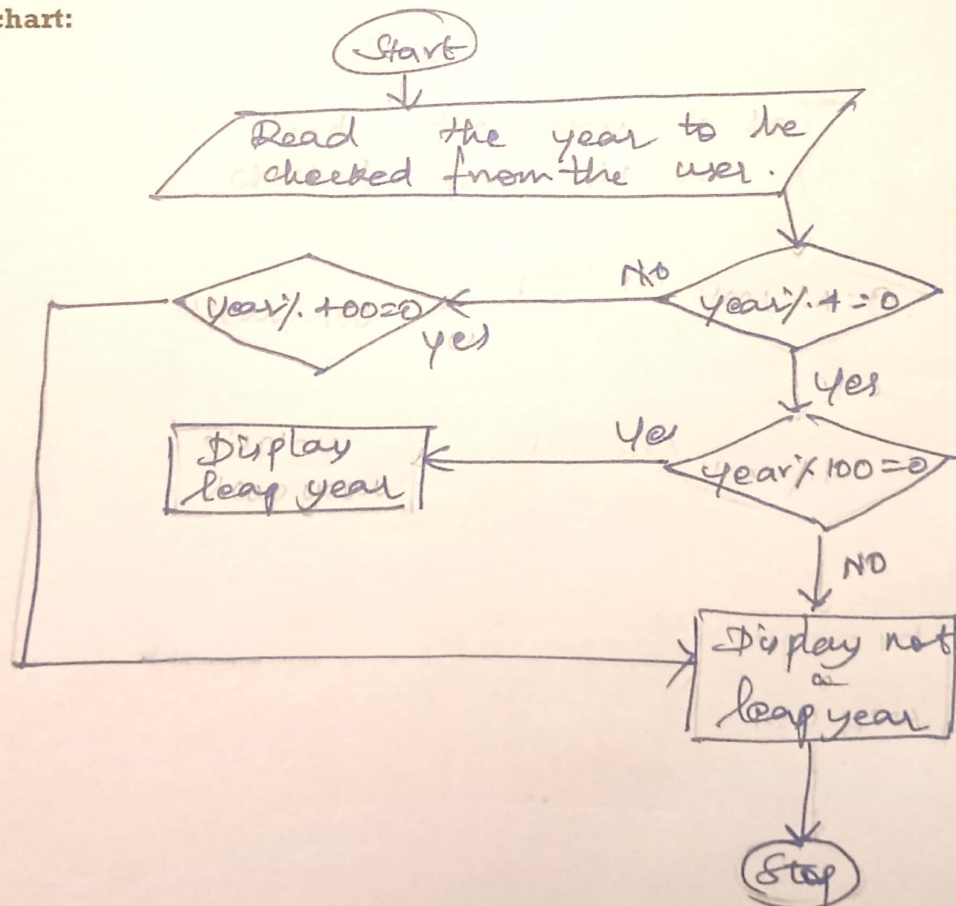
Leap Year

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

Algorithm:

- Step 1: Start
- Step 2: read the Value of the year to be checked from the user.
- Step 3: Assign the Value to a Variable say year
- Step 4: If $(\text{year}/4 = 0 \text{ and } \text{year}/100 \neq 0) \text{ or } \text{year}/400 = 0$
- Step 5: Display leap year
- Step 6: else display not leap year
- Step 7: Stop

Flowchart:



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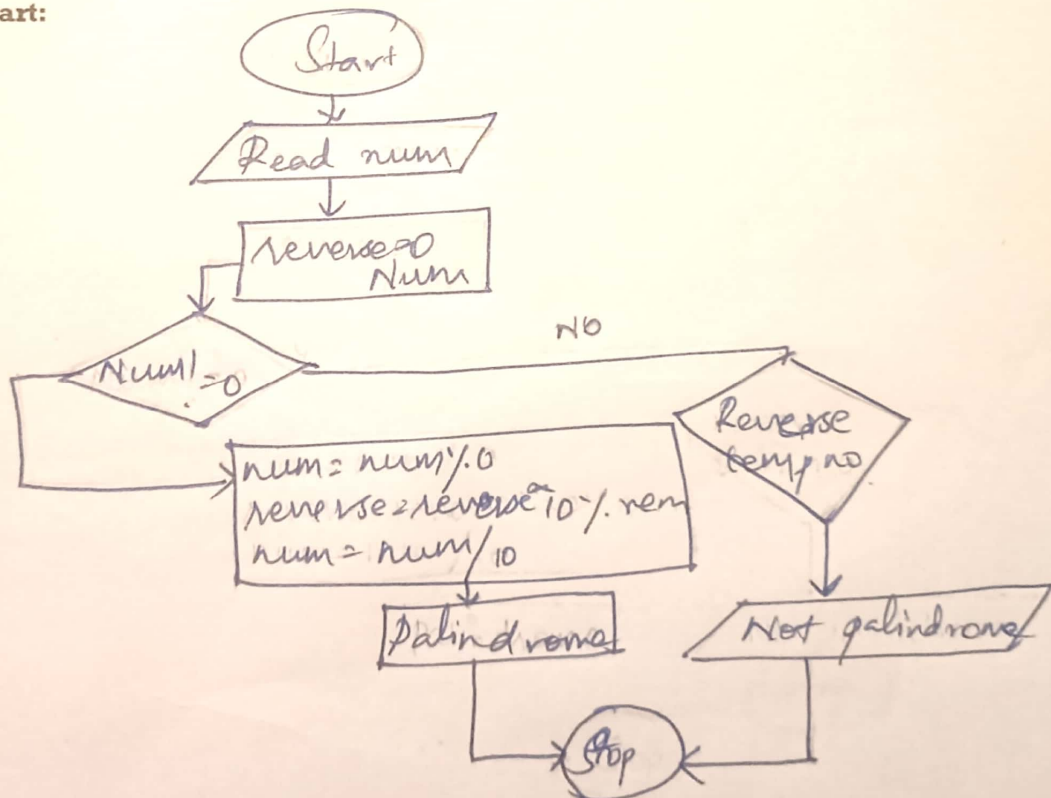
Palindrome Number

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 the input from the user.
 Step 3: Declare and initialize the variable reverse.
 and assign input to a variable temp num = Num
 Step 4: Start while loop temp num != 0 become false
 * rem = num / 10
 * reverse = reverse * 10 + rem
 * num = num / 10
 Step 5: check if reverse == temp no
 Step 6: if true no is a
 Step 7: if not true no is not palindrome
 Step 8: stop

Flowchart:



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Sum of Digits

Write an Algorithm and draw a Flowchart to calculate the sum of digits in the given number.

Algorithm:

- Step1: Get the number
 Step2: Construct a Variable to hold the total & initialize it to 0
 Step3: Repeat Steps 2 and 3 until the result is not 0
 Step4: Divide the number by 10 to obtain the right most digit using the remaining percent Operator then add it to be total
 Step5: Use the `|` operator to divide the integer eliminate the last digit on the right
 Step6: Display the total.

Flowchart:

