

Ex. No.: 1

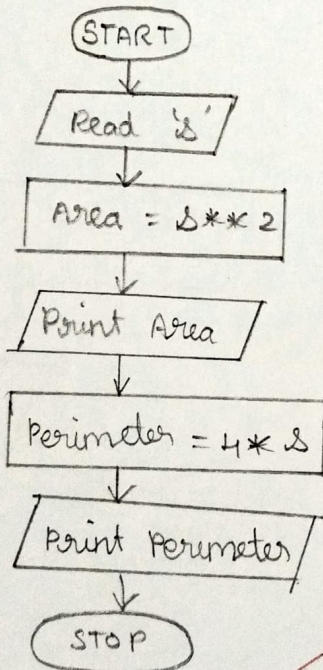
Date: 27.09.2024

**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: Read value for 's'  
Step 3: calculate  $s * s * 2$  and print the value.  
Step 4: calculate  $4 * s$  and print the value  
Step 5: stop

**Flowchart:***Rpr*



Ex. No.: 2

Date: 27-09-2024

**Days to Year Conversion**

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

**Algorithm:**

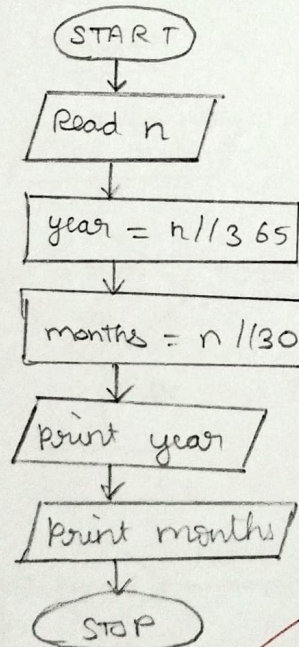
Step 1 : Start

Step 2 : Read value for n

Step 3 : To calculate number of years, divide  $n // 365$ Step 4 : To calculate number of months, divide  $n // 30$ 

Step 5 : Print the year and months

Step 6 : stop

**Flowchart:**



Ex. No.: 3

Date: 01-10-2024

**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: Read value for num

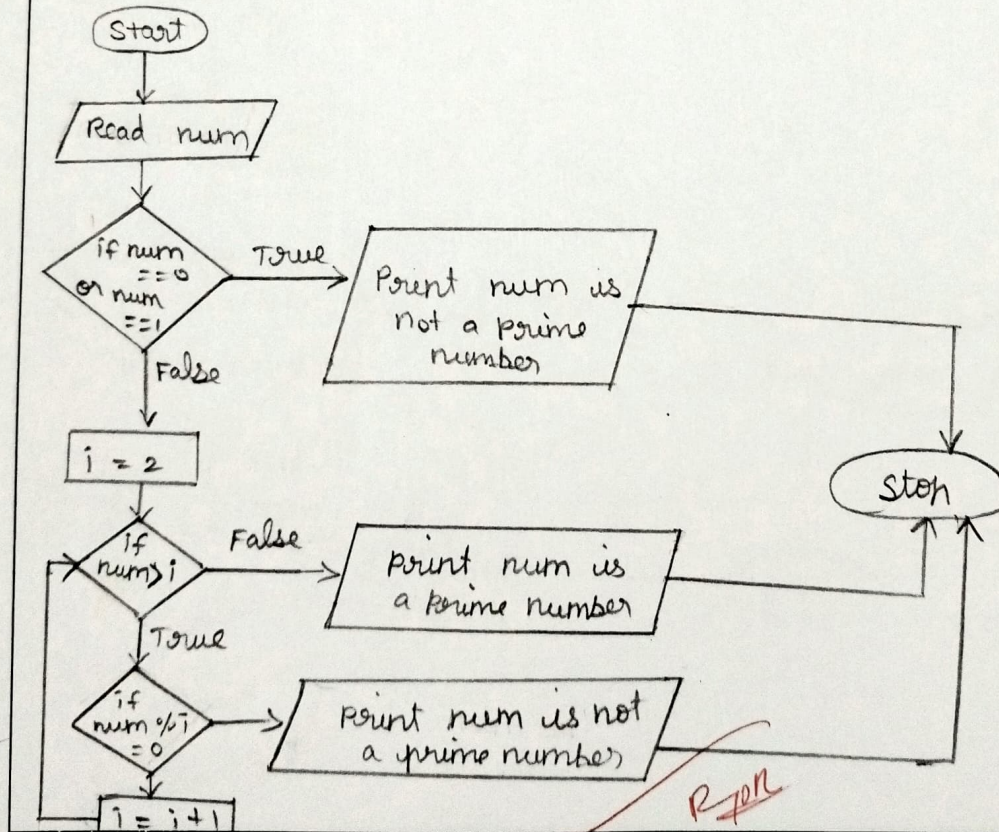
Step 3: If  $\text{num} == 0$  or  $\text{num} == 1$ , print num is not a prime number

Step 4: otherwise, initialise  $i = 2$ . If  $\text{num} > i$ , check if  $\text{num} \% i = 0$ . If  $\text{num} > i$  is false print num is a prime number.

Step 5: If  $\text{num} \% i = 0$  is true, print num is not a prime number

Step 6:  $i = i + 1$

Step 7: stop

**Flowchart:**



Ex. No.: 4

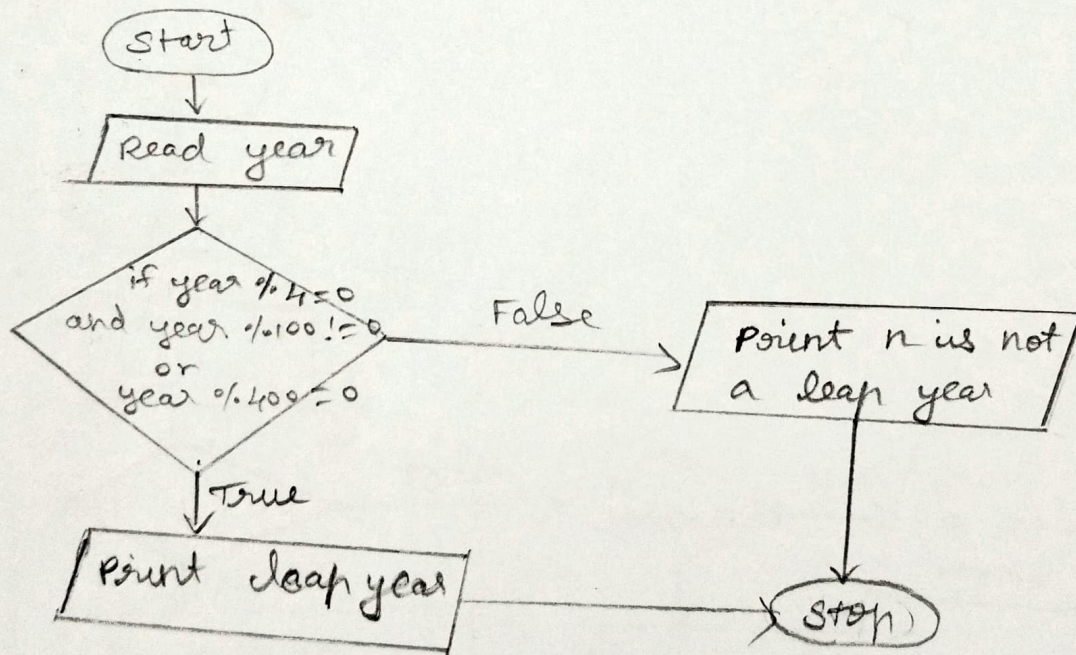
Date: 1-10-2024

**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 value for 'year'  
Step 3 : check if the year is divisible by 4 and not divisible by 100. If so print it is a leap year. otherwise check if the year is divisible by 400. If so print it is a leap year, otherwise print not a leap year.  
Step 4 : stop

**Flowchart:**



Ex. No.: 5

Date: 4-10-24

**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 : Read value for 'n'.

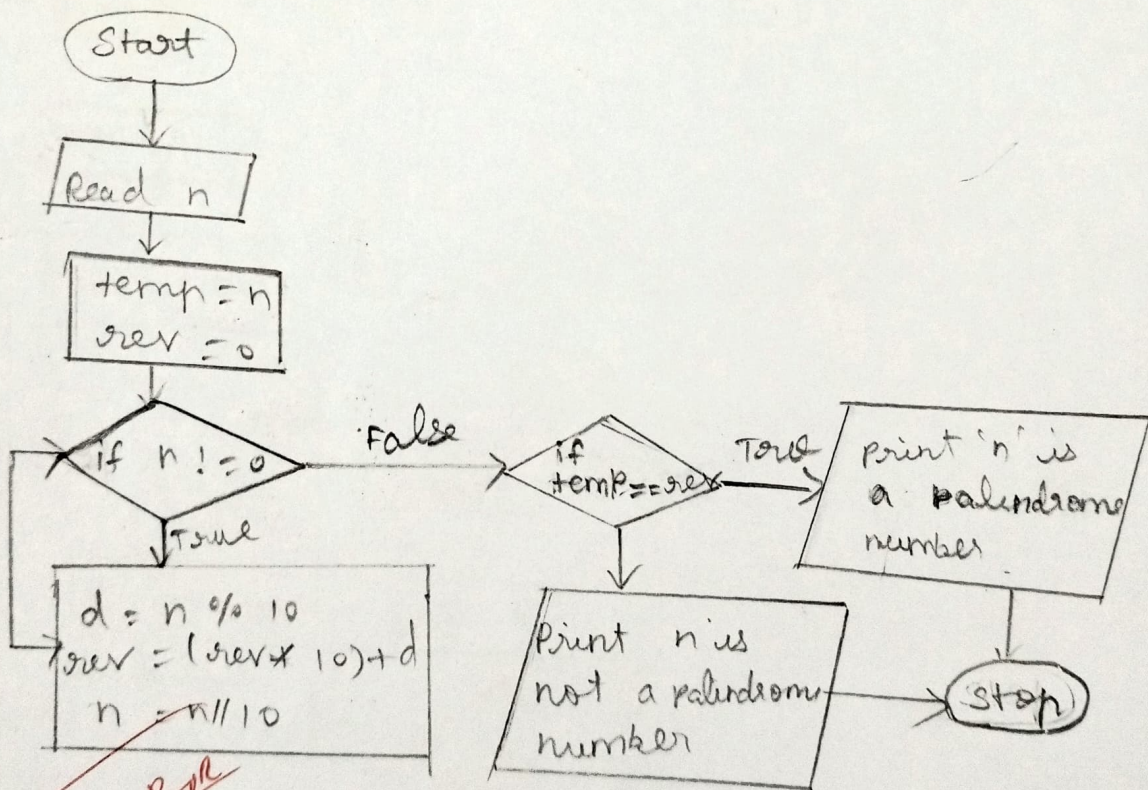
Step 3 : Initialise  $rev = 0$  and  $temp = n$ 

Step 4 : check if  $n \neq 0$ , if so,  $d = n \% 10$   
 $rev = (rev * 10) + d$   
 $n = n / 10$

Step 5 : otherwise check if  $temp = rev$ .  
 If yes, print n is a palindrome

Step 6 : number  
 If  $temp = rev$  is false, print n is not a

Step 7 : Palindrome number  
 Flowchart: stop





Ex. No.: 6

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 : Read value for n  
 Step 3 : Initialise sum = 0  
 Step 4 : check if n is greater than 0.  
 Step 5 : If so,  $sum = sum + (n \% 10)$   
                                    $n = n // 10$   
 Step 6 : If  $n > 0$  is false, print sum  
 Step 7 : stop

#### Flowchart:

