

Algorithm & Flowchart

Calculate Area and Perimeter

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

Algorithm:

STEP1:- start

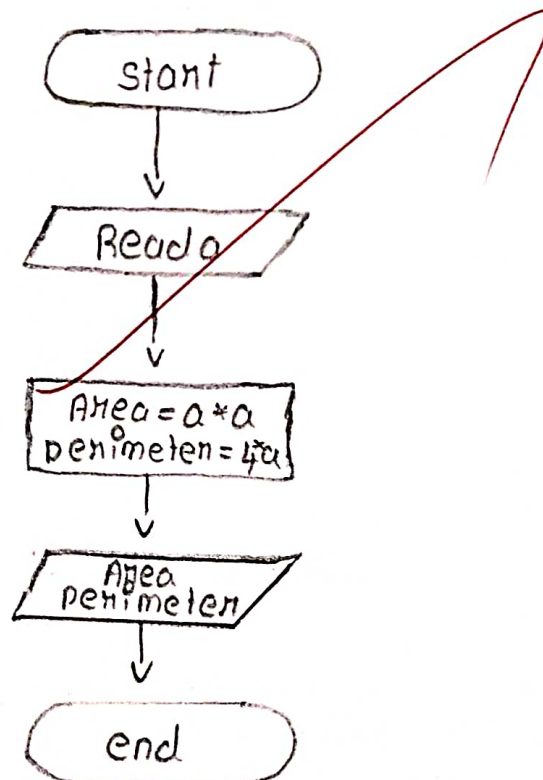
STEP2: Read a

STEP3: Area = $a * a$, perimeter = $4 * a$

STEP4: print "Area & perimeter"

STEP5: stop

Flowchart:



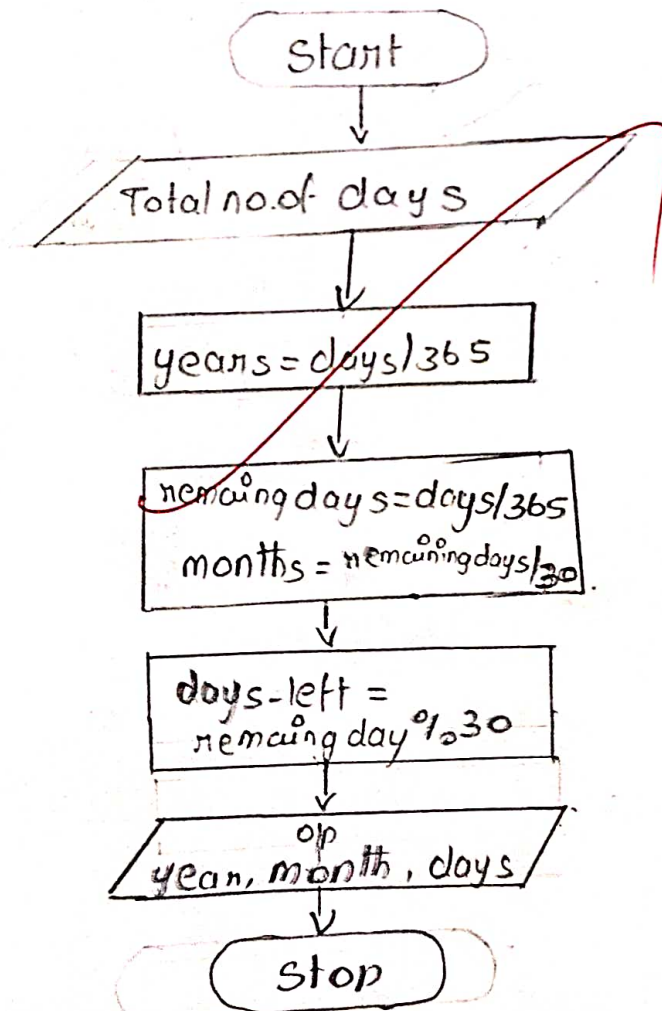
Days to Year Conversion

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

Algorithm:

- STEP1: Start
 STEP2: Input no. of days
 STEP3: calculate the no. of years $\text{years} = \text{days} // 365$
 STEP4: calculate the remaining days after calculating years. $\text{remaining days} = \text{days} \% 365$
 STEP5: calculate the remaining days
 $\text{months} = \text{remaining days} / 30$
 STEP6: calculate the remaining days after calculating months $\text{days-left} = \text{remaining} - \text{days} \% 30$
 STEP7: output the years, months, days left
 STEP8: End

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:

STEP1: Start

STEP2: Read n

STEP3: Set $f=1$

STEP4: If $n==1$, then print("n is not a prime number")
go to step 8

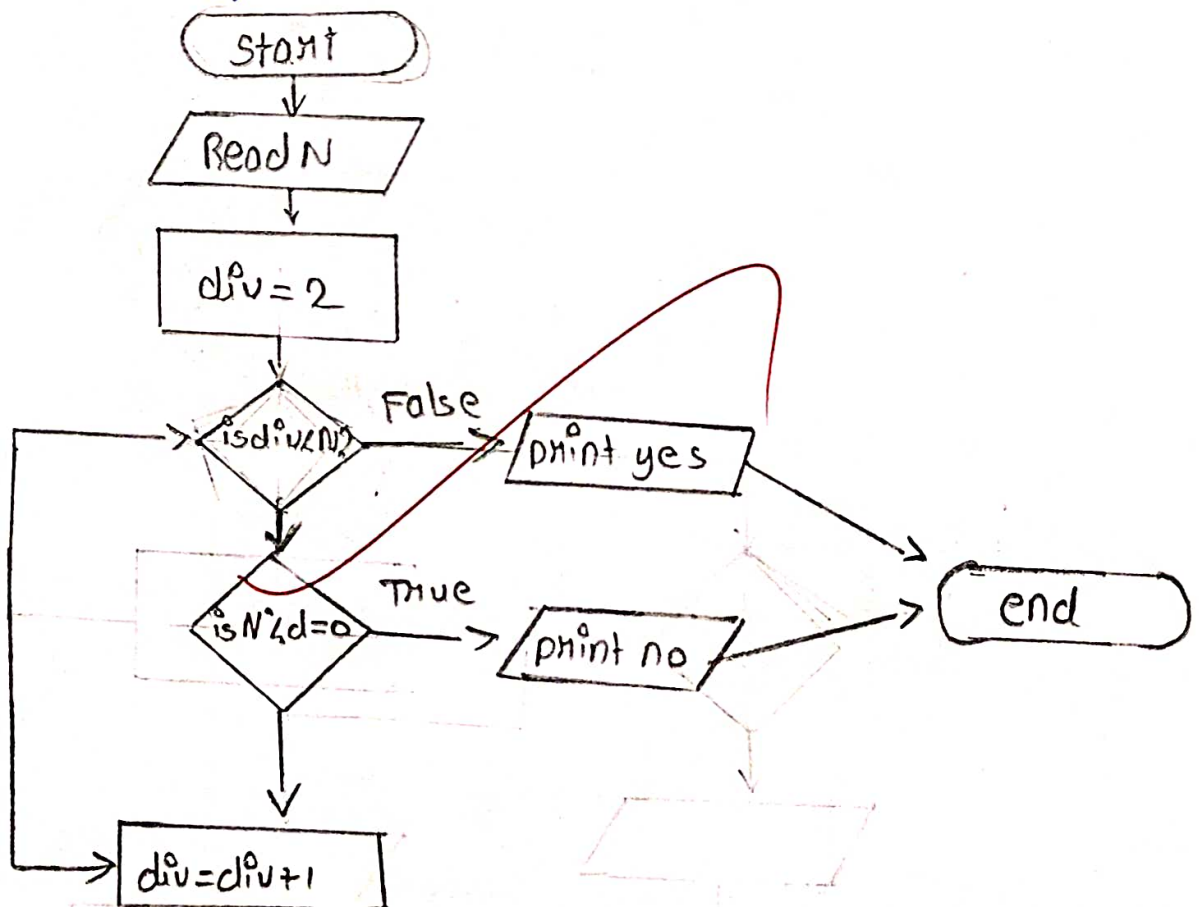
STEP5: for $i=2$ to $n-1$

STEP6: If $n \% i == 0$ then set $f=0$ & break
else go to step 5

STEP7: If $f==1$ then print("n is not a prime number")
else print("n is a prime number")

STEP8: 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:

STEP1: start

STEP2: Read year $year$

STEP3: $rem = year \% 400$

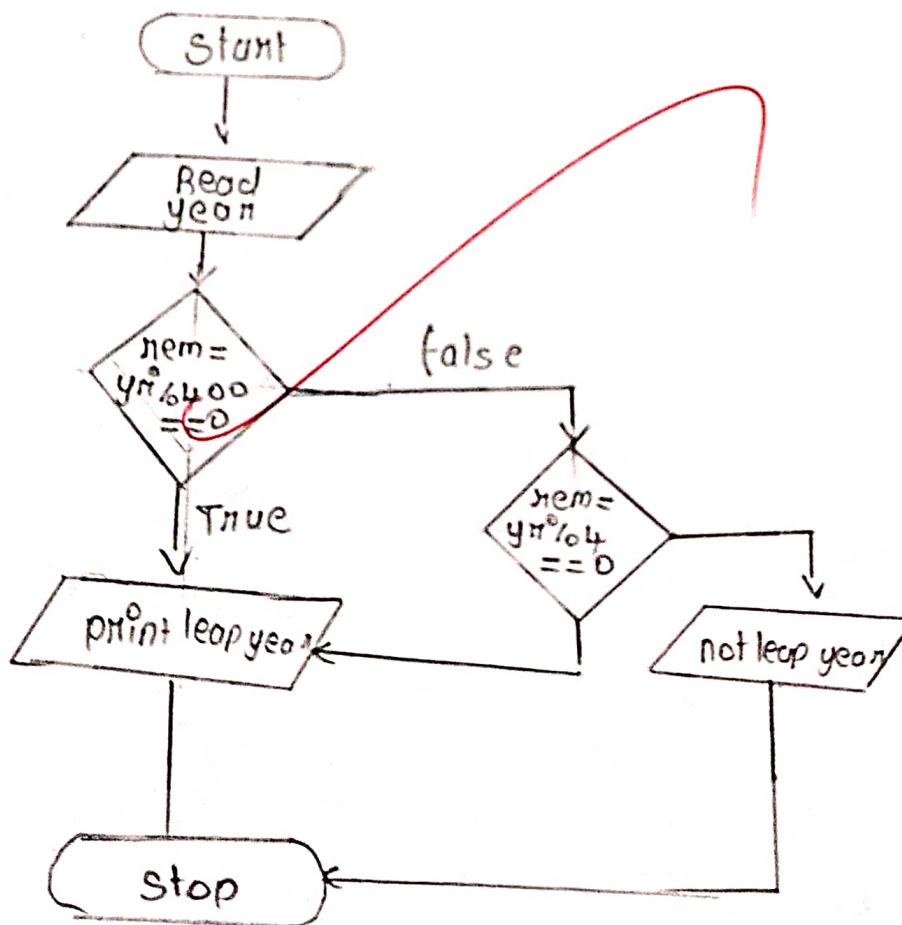
STEP4: if $rem == 0$ print("Leap year")

STEP5: if $rem = year \% 4 == 0$ print("Leap year")

STEP6: else print("Not a leap year")

STEP7: End

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:

STEP1: start

STEP2: Read the number n

STEP3: initialize:
set $original = n$ $reversed = 0$

STEP4: while $n > 0$

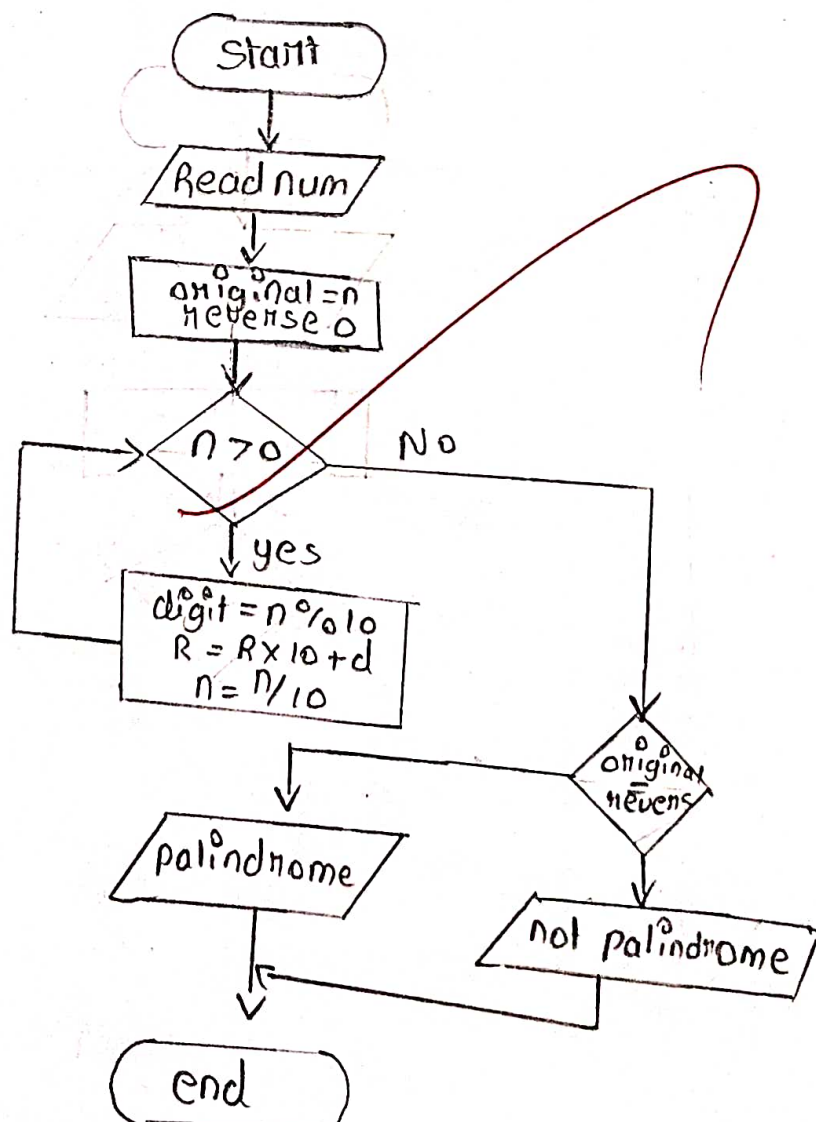
* set $digit = n \text{ mod } 10$ * update $reversed = reversed \times 10 + digit$ * update $n = n / 10$

STEP5: if $original = reversed$ print("palindrome")

STEP6: else print("not palindrome")

STEP7: End

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: Start

STEP2: Get 'n' from the user

STEP3: Initialise the sum is equal to zero

STEP4: check $n > 0$ true go to step5 else go to step6

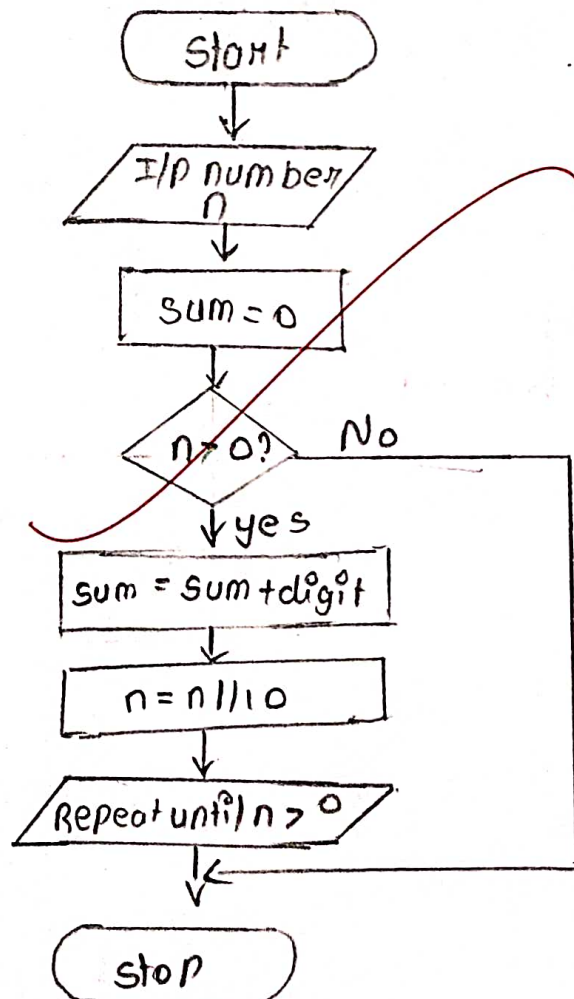
STEP5: $sum = sum + (n \% 10)$

STEP6: $n = n / 10$, go to step4

STEP7: print("sum")

STEP8: end

Flowchart:



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