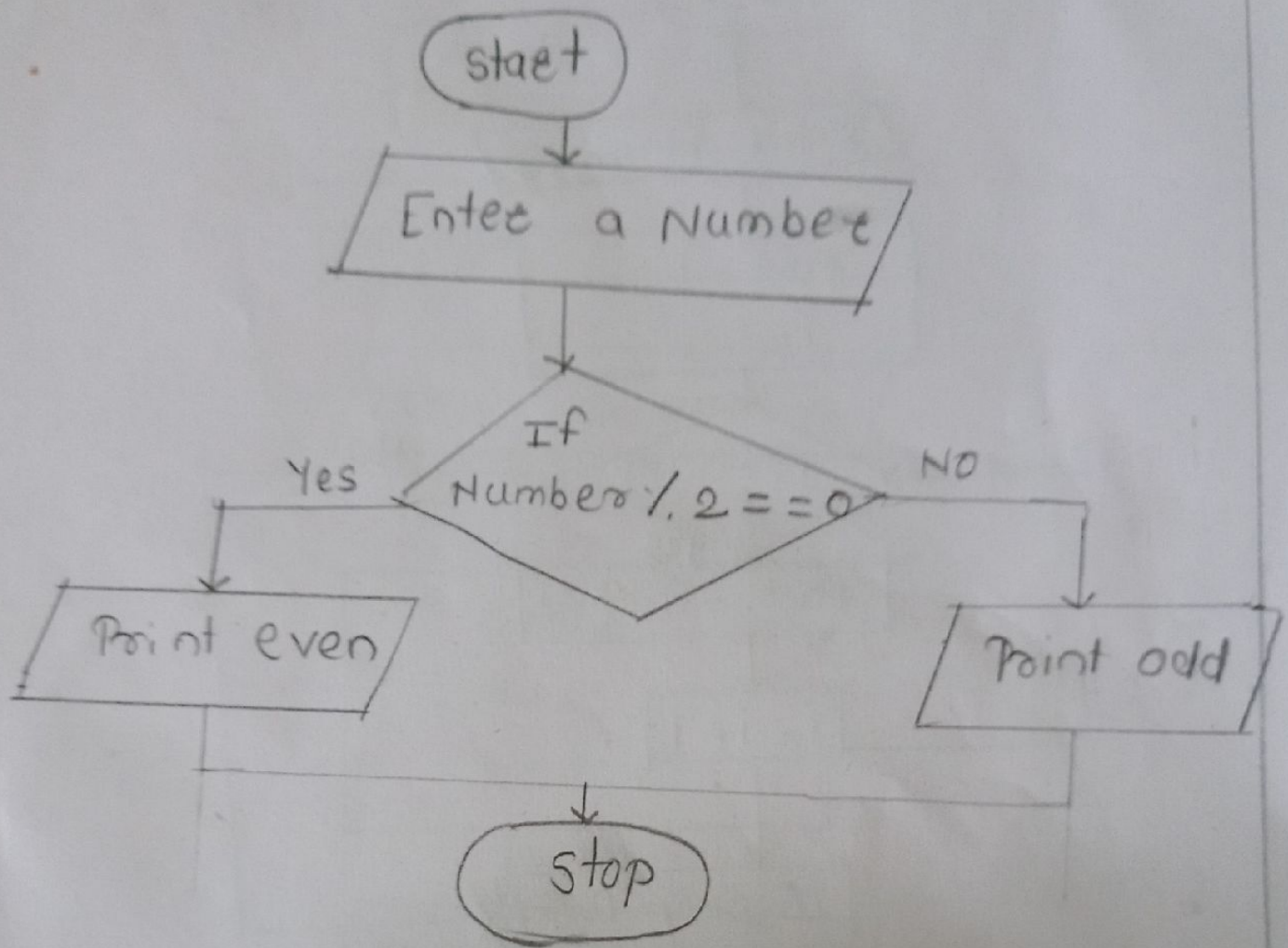


## Assignment No 1

Q.1] check if the given number is EVEN or ODD



Q.2] Write a Java Program to find the Factorial of a given number.

→ Step 1: Start

Step 2: Read a number n.

Step 3: Initialize variables:  $i = 1$ ,  $fact = 1$

Step 4: If  $i \leq n$  go to step 5 otherwise go to step 8

Step 5: calculate  $fact = fact * i$ .

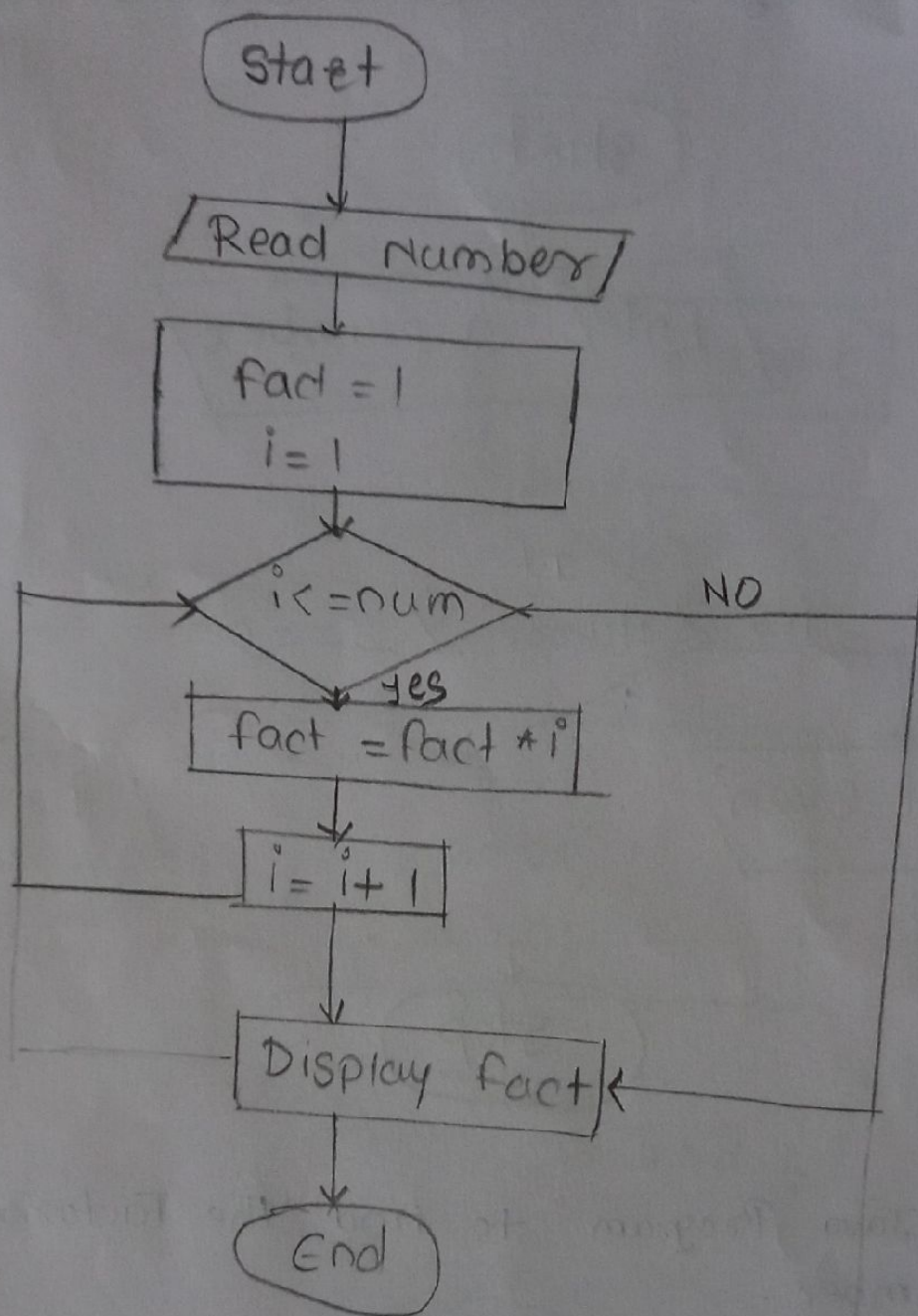
Step 6: Increment the  $i$  by 1 ( $i = i + 1$ ) and go to step 4

Step 7: Print Fact

Step 8: Stop.

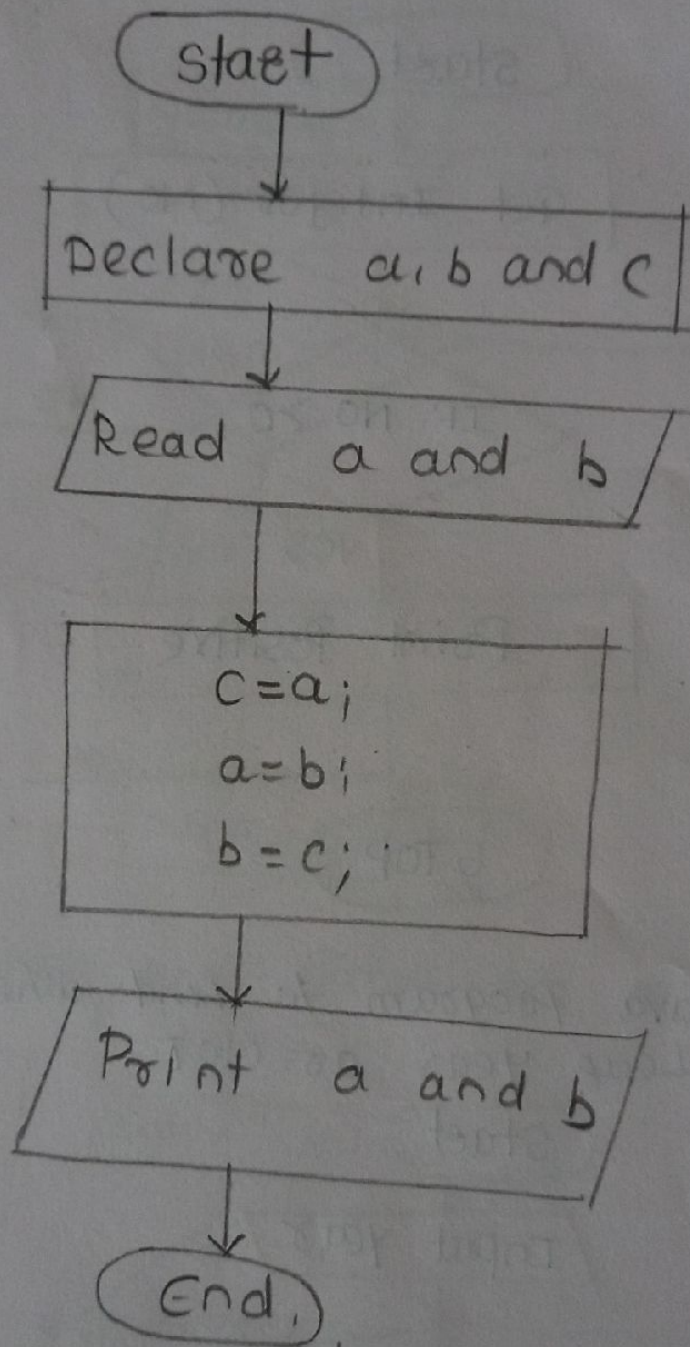


Q.3 Find the factorial of a number using Recursion.





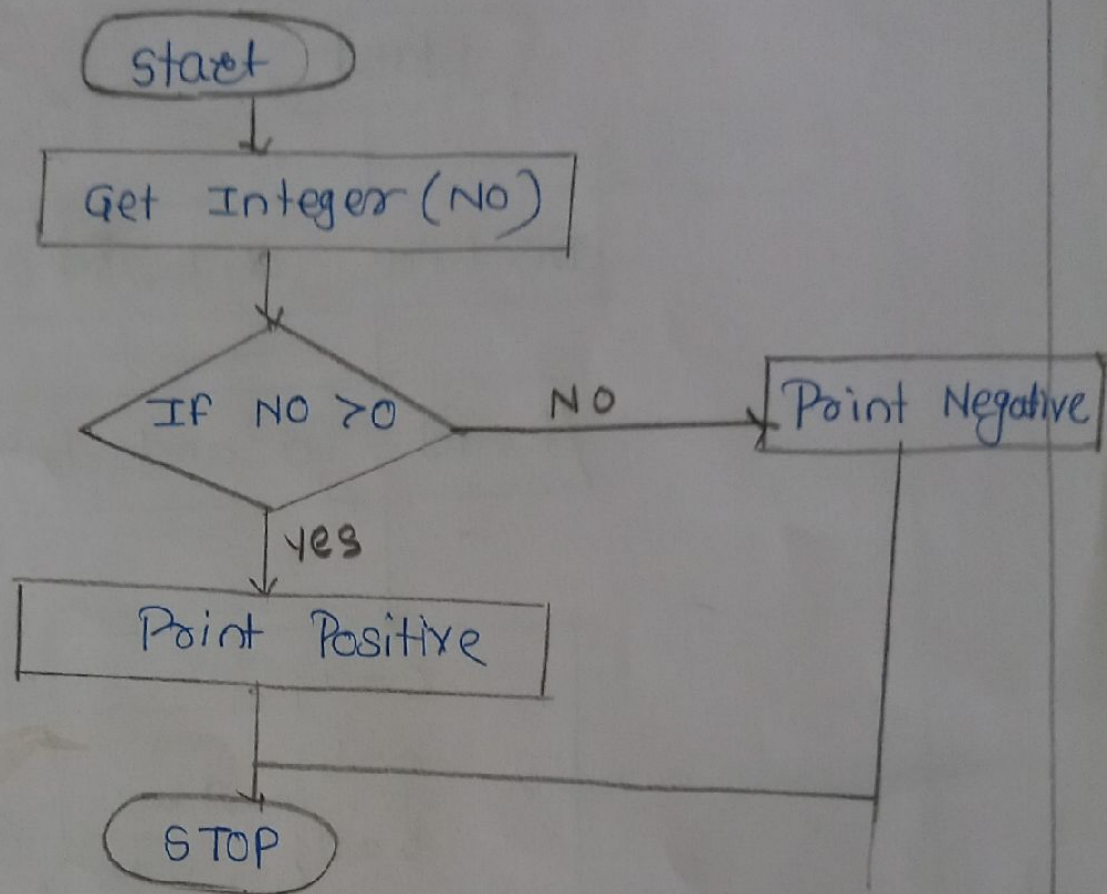
Q.4 Swap two numbers without using the third variable approach.





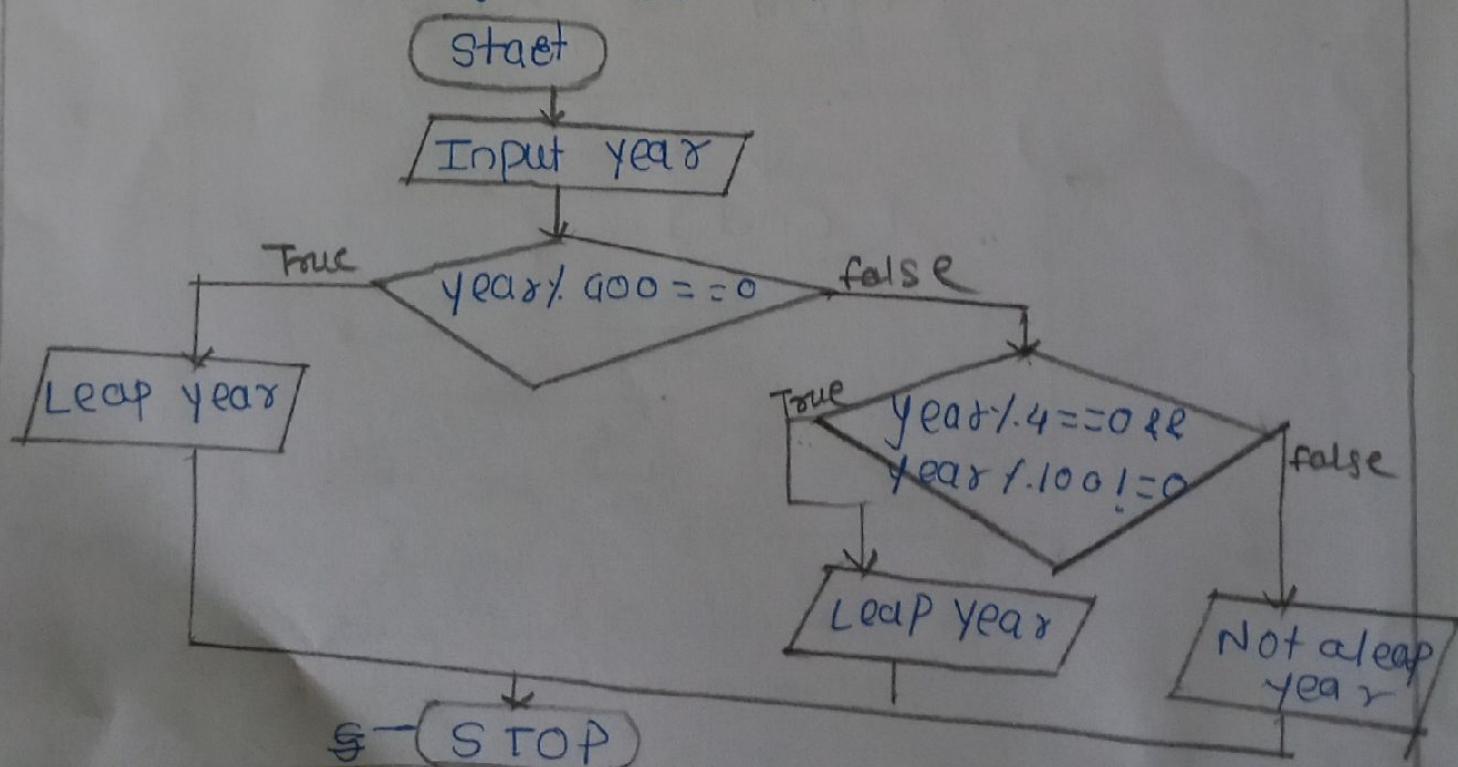
Q.5 How to check whether the given number is positive or negative in Java?

→

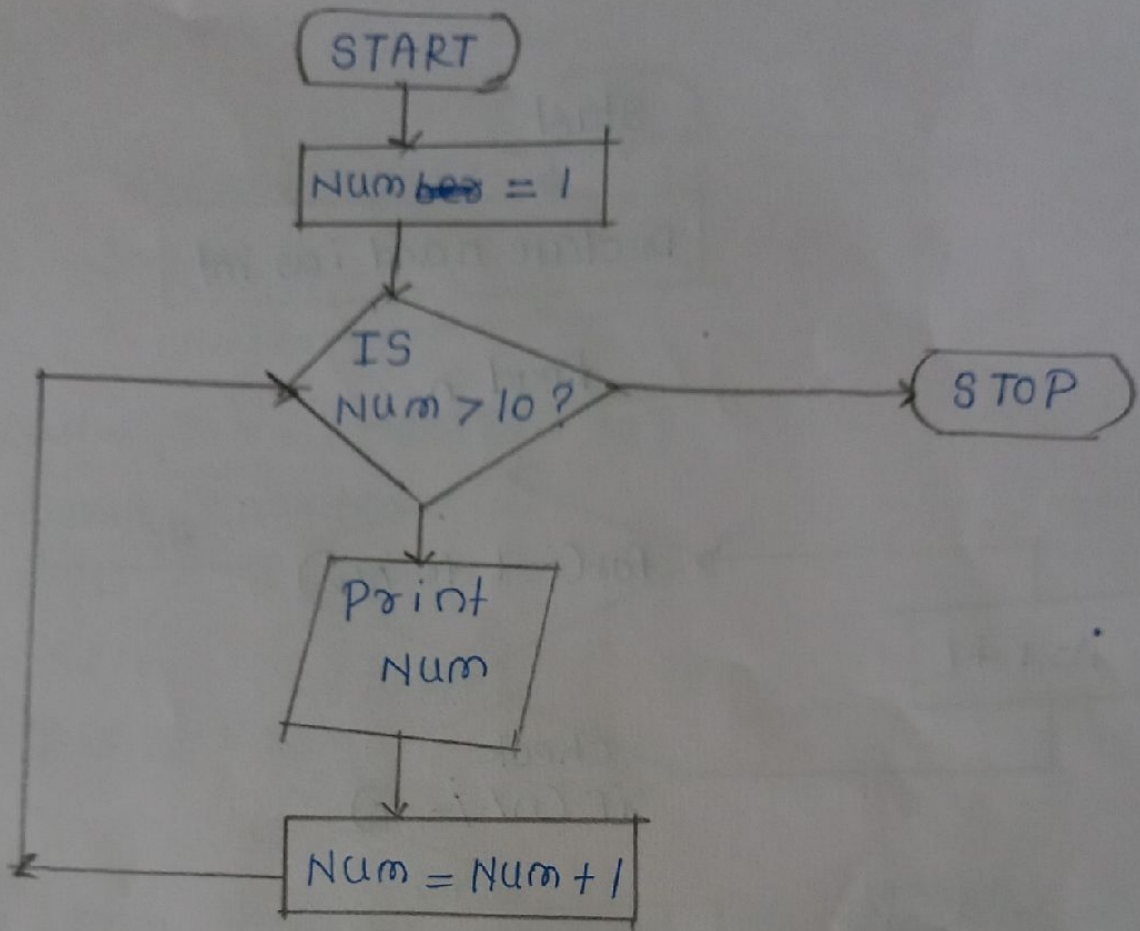


Q.6 Write a Java Program to find whether a given number is Leap year or NOT.

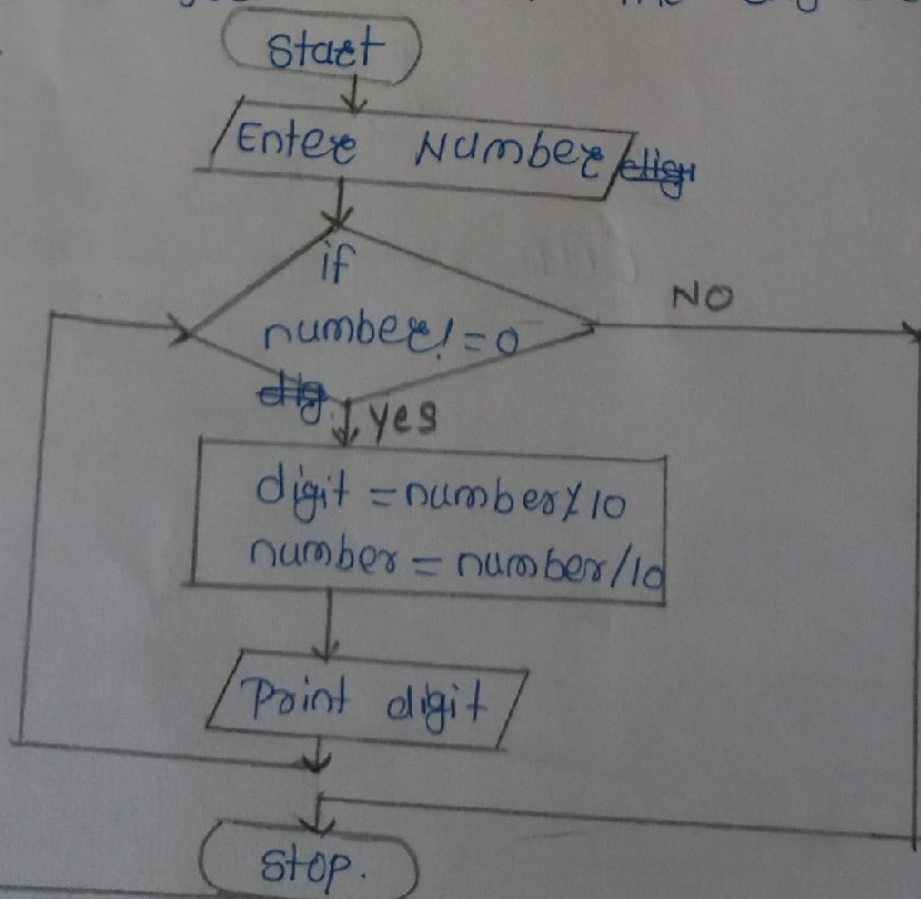
→



Q7 Write a Java Program to Print 1 to 10 without using loop.

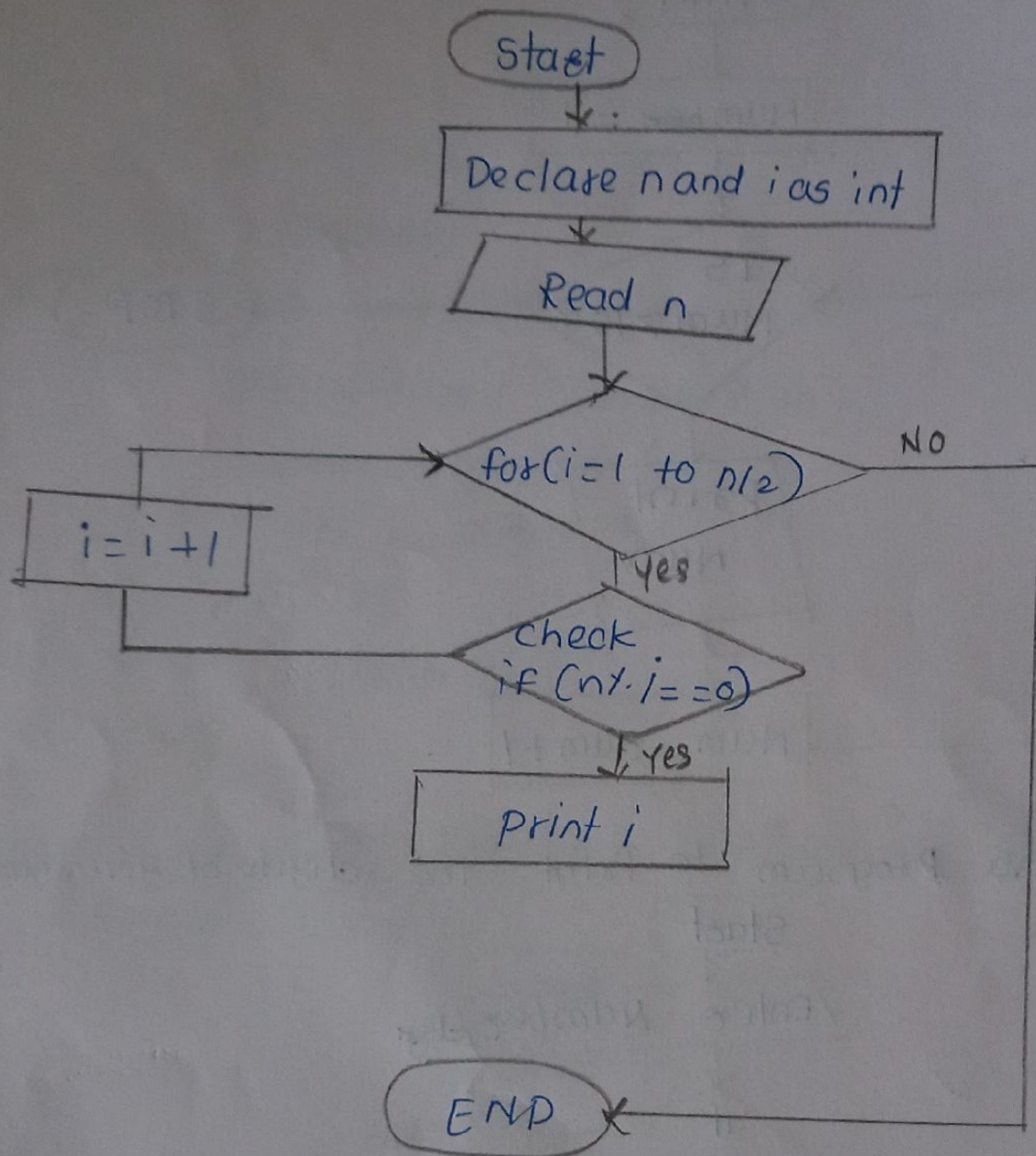


Q8 Write a Java Program to Print the digits of given number





99 Write a Java Program to print all the factors of the given number.

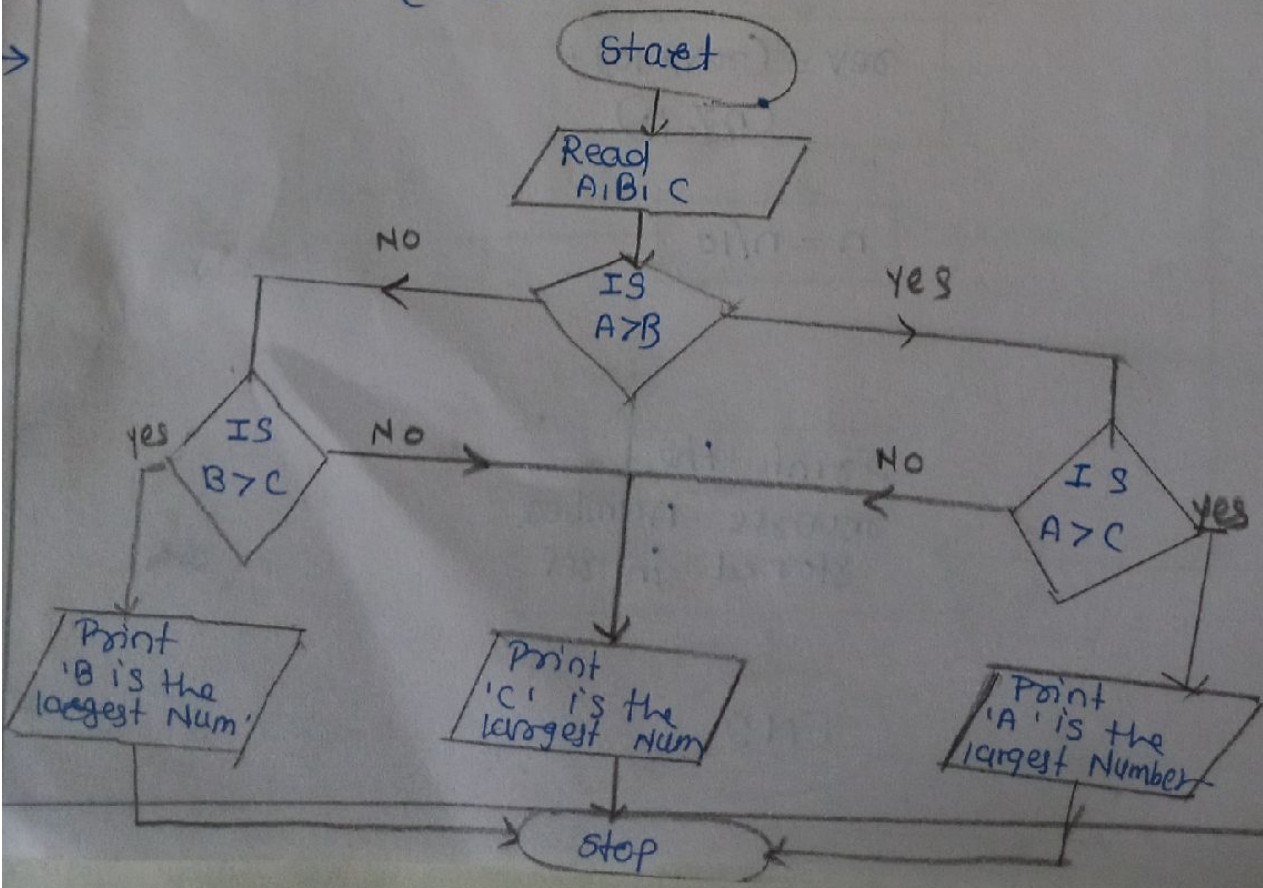




Q.1] Write a Java Program to find the sum of the digits of a given number.

- 1. Begin
- 2. digits = 0
- 3. Sum = 0
- 4. PRINT "Enter Number"
- 5. READ number
- 6. WHILE number  $\neq$  0
  - Sum = Sum + (number % 10)
  - number = number / 10
  - digits = digits + 1
- END WHILE
- 7. PRINT digits, sum
- 8. END

Q.2] Write a Java Program to find the ~~smallest~~ <sup>largest</sup> of 3 numbers (a, b, c).



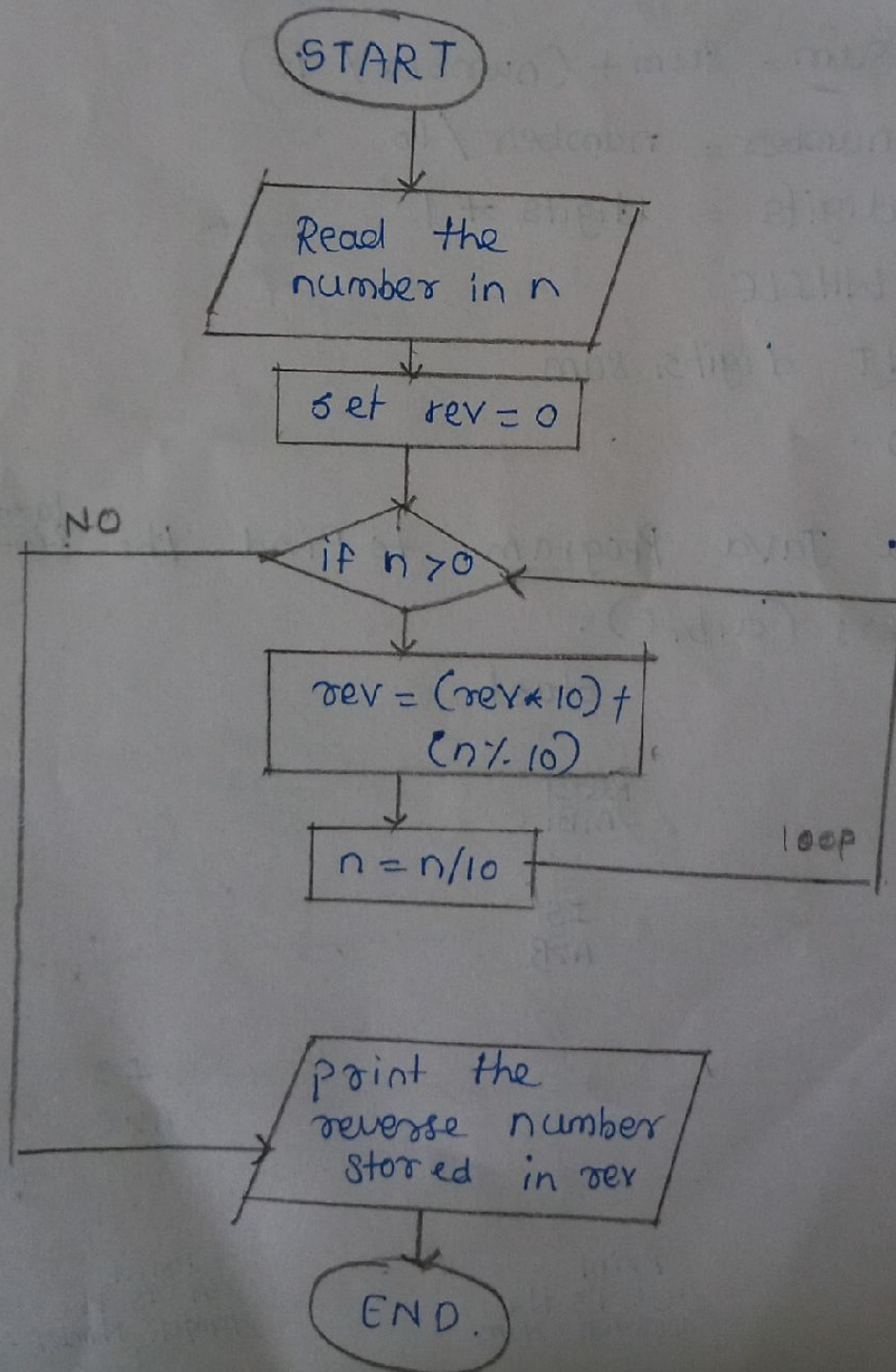


Q12 How to add two numbers without using the arithmetic operators in Java?

- 
1. `int carry = (a & b);`
  2. `a = a ^ b`
  3. `b = carry << 1;`
  4. `return a;`

Q13 Write a Java Program to Reverse a given number.

→





Q.19] WAP to find the GCD of two given numbers.

→ Algo:-

Step 1: Start

Step 2: Declare variable  $n_1, n_2, gcd=1, i=1$

Step 3: Input number 1 and number 2  
( $n_1$ ) ( $n_2$ )

Step 4: Repeat until  $i \leq n_1$  and  $i \leq n_2$

4.1] If  $n_1 \% i == 0$  &  $n_2 \% i == 0$

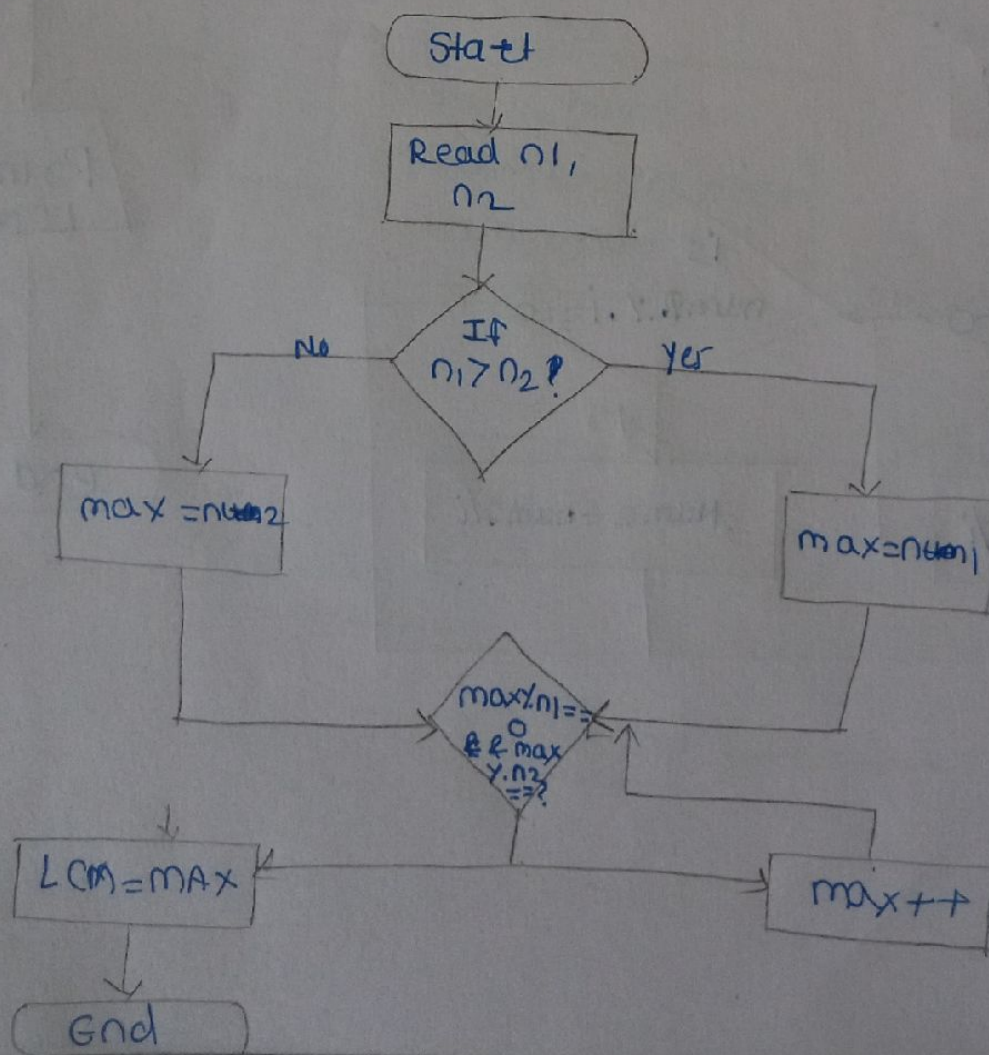
4.2]  $gcd = i$

Step 5: Print gcd

Step 6: Stop

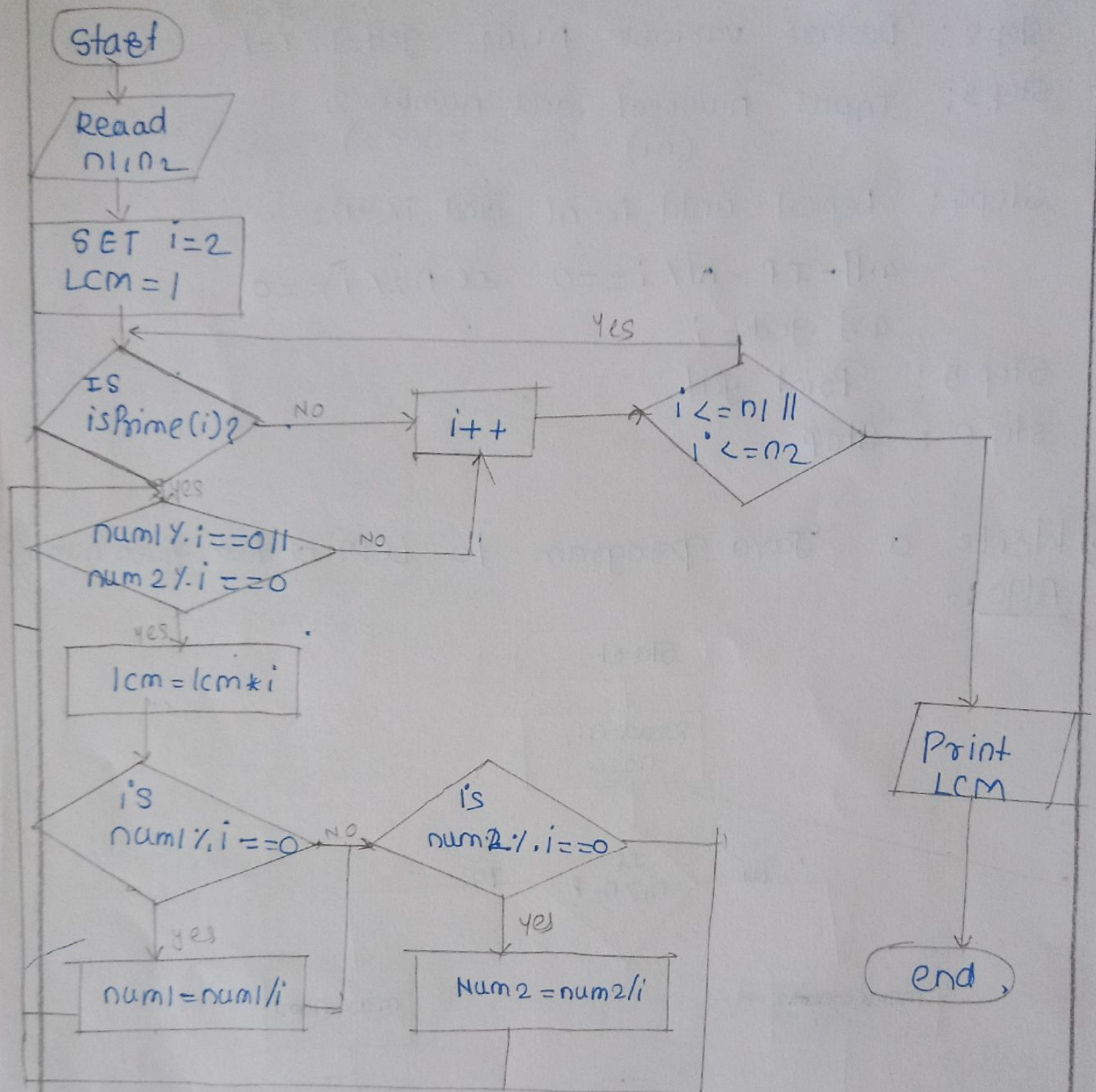
Q.20] Write a Java Program to LCM of two given number.

Algo:-





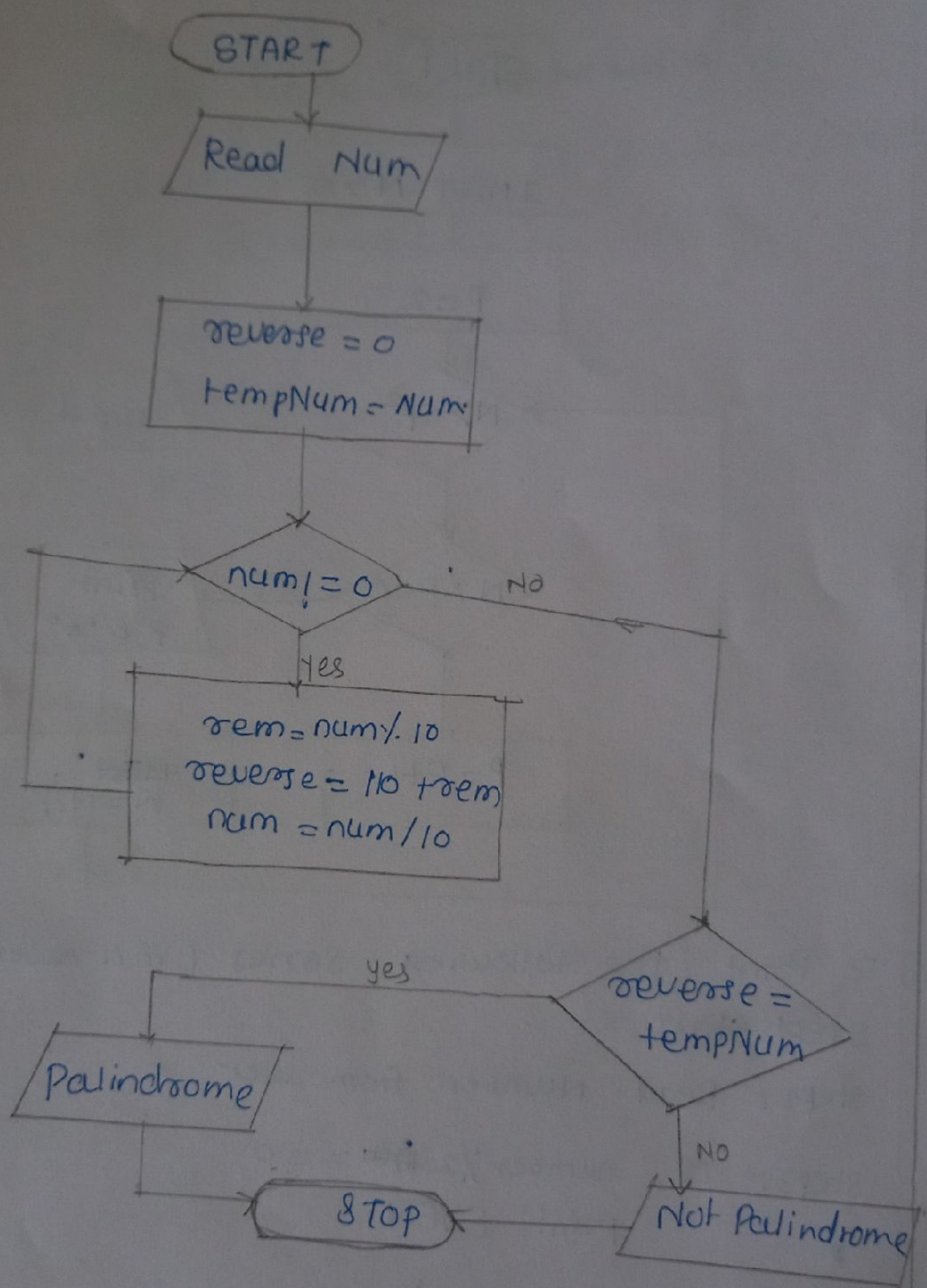
\* Write a Java Program to LCM of Two given numbers using the Prime Factors method.





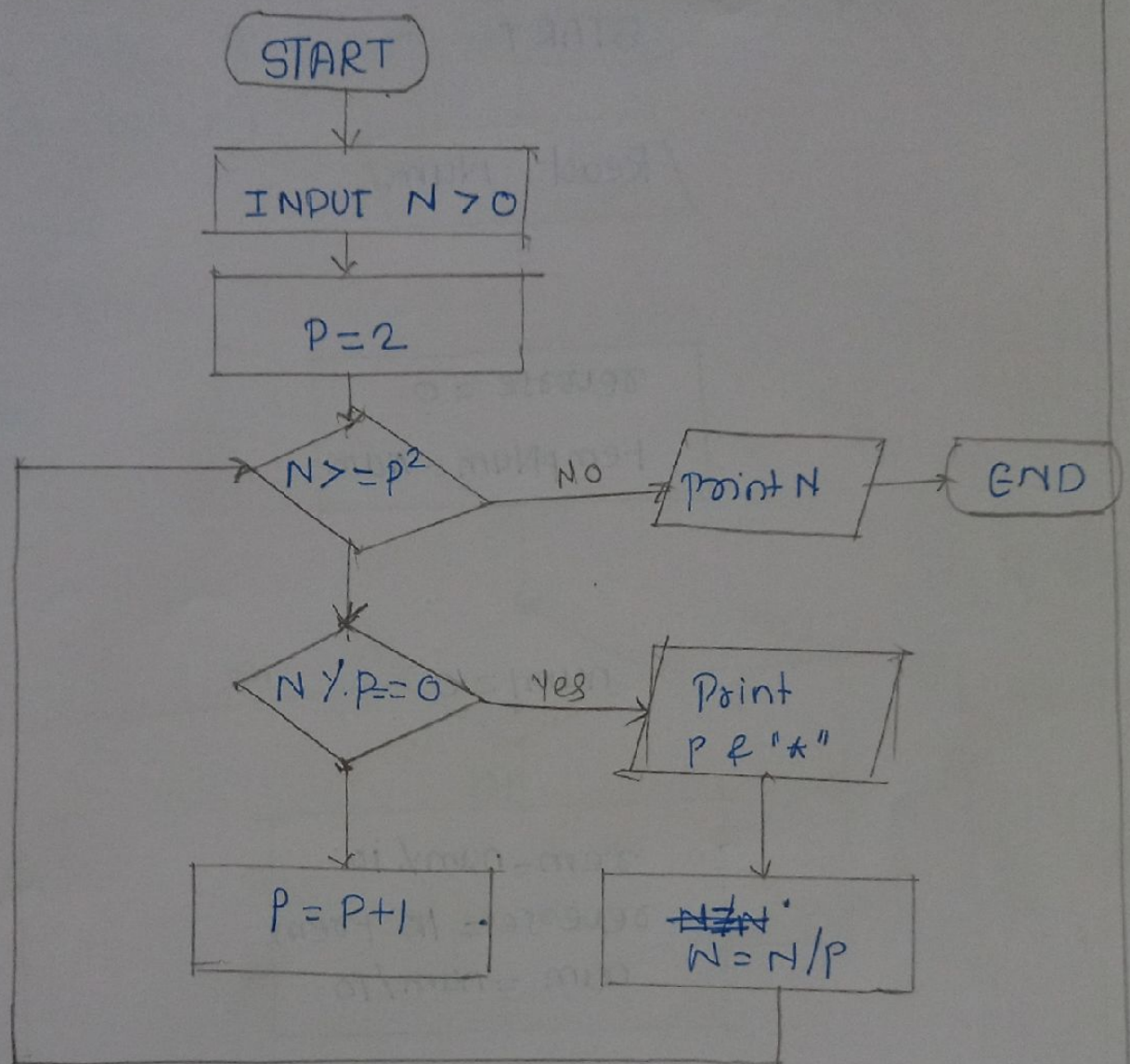
Q17] Check whether the Given number is a Palindrome or Not.

→





Q18] Write a Java Program to print all the prime factors of the Given number.



Q19] To Print the following series EVEN no series 2, 4, 6, 8, --

Step 1: start

Step 2: Read Number from user

Step 3: IF number % 2 ~~not~~ == 0

print EVEN

Step 4: END.



Q2) To print the following series ODD Number series.

Step 1 : Start

Step 2 : <sup>Read</sup> ~~Declare~~ variable ~~num and~~ ~~and~~ A n

Step 3 : Repeat step 3.1 to 3.3 while ( $n \leq 100$ )

Step 3.1 : if ( $n \% 2 \neq 0$ )

Step 3.2 : print n

Step 3.3 :  $n = n + 1$

Step 4 : STOP