

Assignment 1

By:- Yogi Rao_KH

Assignment 1

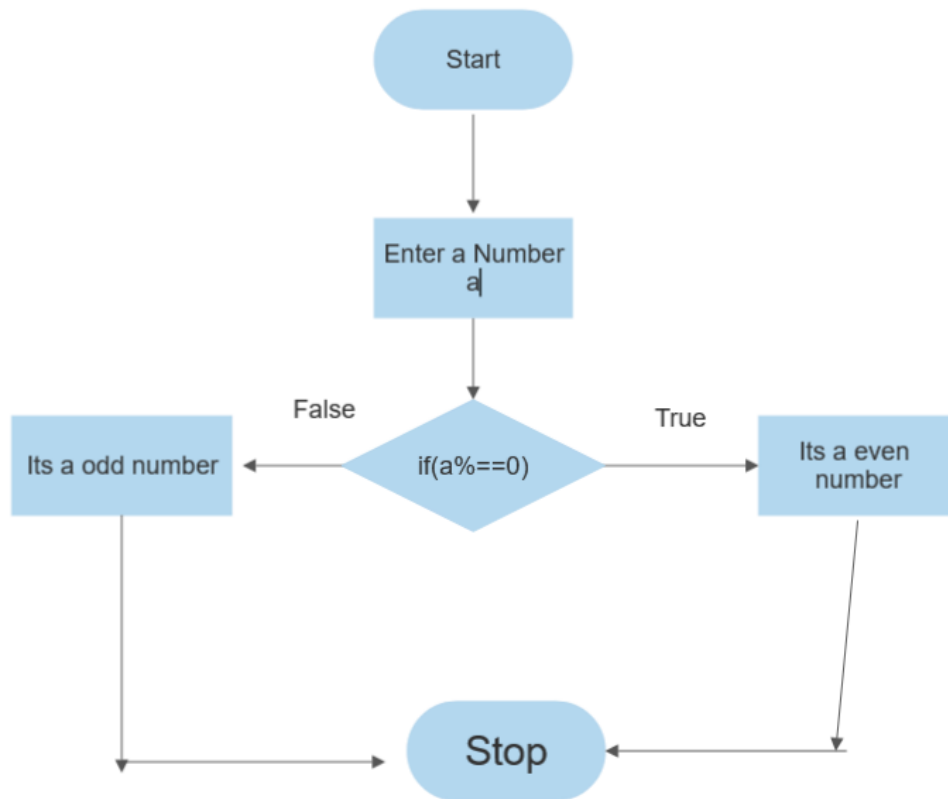
Date: 07.09.2022

Submission date: 12.09.2022

Write Algorithm & Flowchart for the following programs.

1. Check if the given number is EVEN or ODD.
2. Write a Java Program to find the Factorial of a given number.
3. Find the Factorial of a number using Recursion.
4. Swap two numbers without using the third variable approach.
5. How to check whether the given number is Positive or Negative in Java?
6. Write a Java Program to find whether a given number is Leap year or NOT.
7. Write a Java Program to Print 1 To 10 Without Using Loop.
8. Write a Java Program to print the digits of a Given Number.
9. Write a Java Program to print all the Factors of the Given number.
10. Write a Java Program to find the sum of the digits of a given number.
11. Write a Java Program to find the smallest of 3 numbers (a,b,c)
12. How to add two numbers without using the arithmetic operators in Java?
13. Write a java program to Reverse a given number.
14. Write a Java Program to find the GCD of two given numbers.
15. Write a java program to LCM of TWO given numbers.
16. Write a java program to LCM of TWO given numbers using the Prime Factors method.
17. Check whether the Given Number is a Palindrome or NOT.
18. Write a Java Program to print all the Prime Factors of the Given Number.
19. To print the following series EVEN number Series 2 4 6 8 10 12 14 16
20. To print the following series ODD number Series 1 3 5 7 9 11 13...

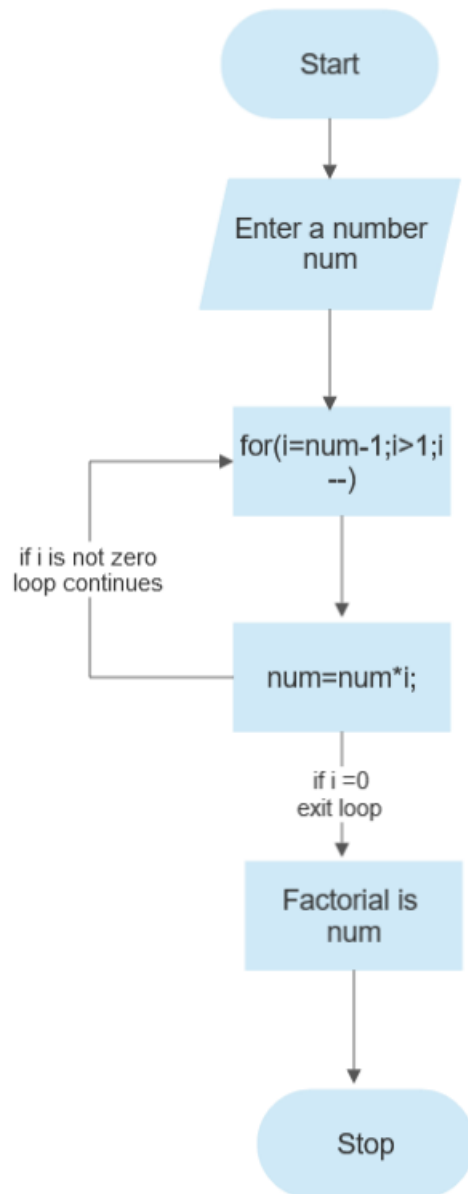
1. Check if the number is even or odd.



Algorithm

1. Start
2. Input a number
3. divide the number by 2
4. if completely divisible then even
5. if not completely divisible then odd.
6. Stop.

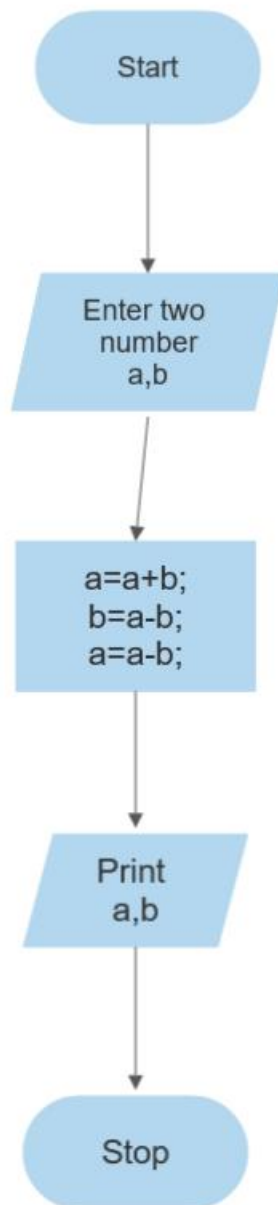
2. Write a java program to find factorial of a given program.



Algorithm:-

1. Input a number.
2. Initialise a For loop with decrement .
3. Store value in the same number by multiplying till number become 1.
4. Print the final value
5. Stop.

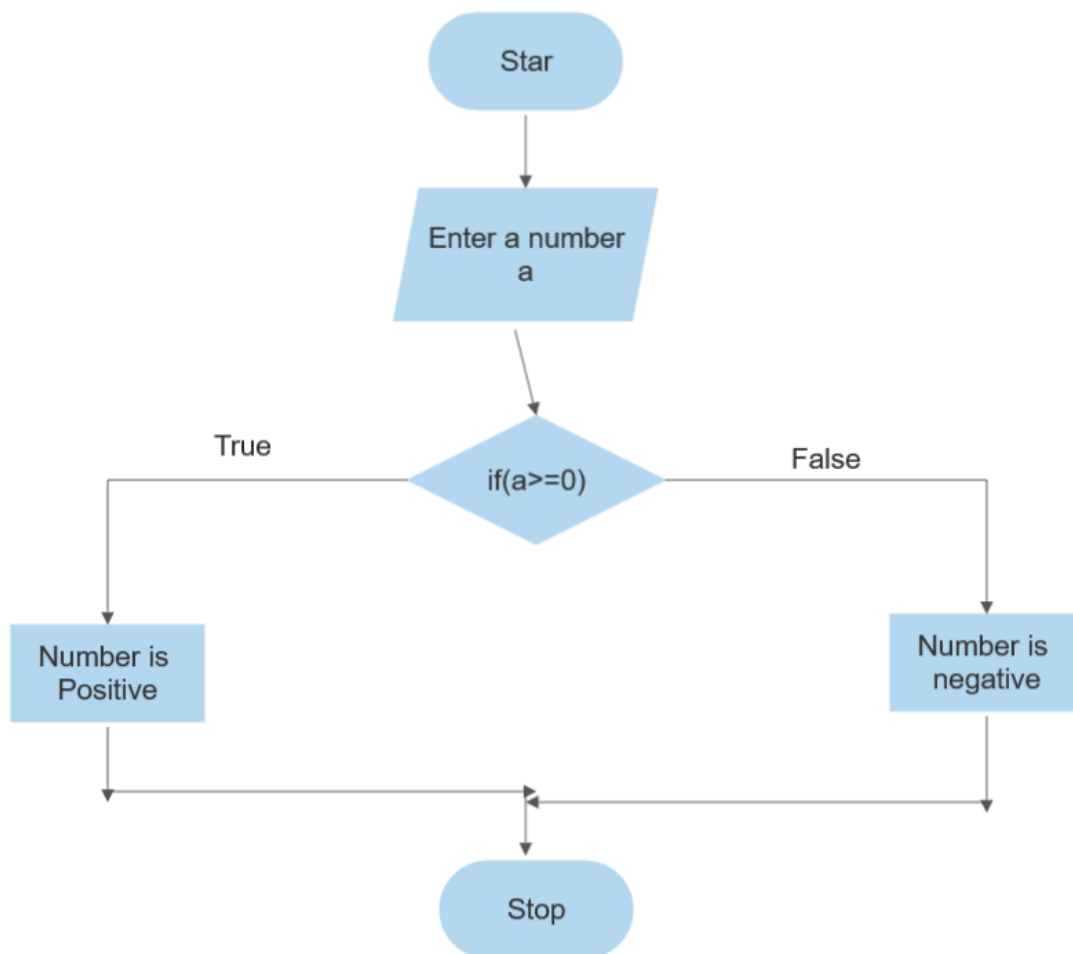
3. Swap two number without using third variable approach.



Algorithm :-

1. Start
2. Take two number as input.
3. Add both number and put value in first number.
4. Subtract second number from first number and store it in second number. Now second number has value of first number.
5. Now from the first number subtract second number and store it in first number. Now first number has value of second number.
6. Stop.

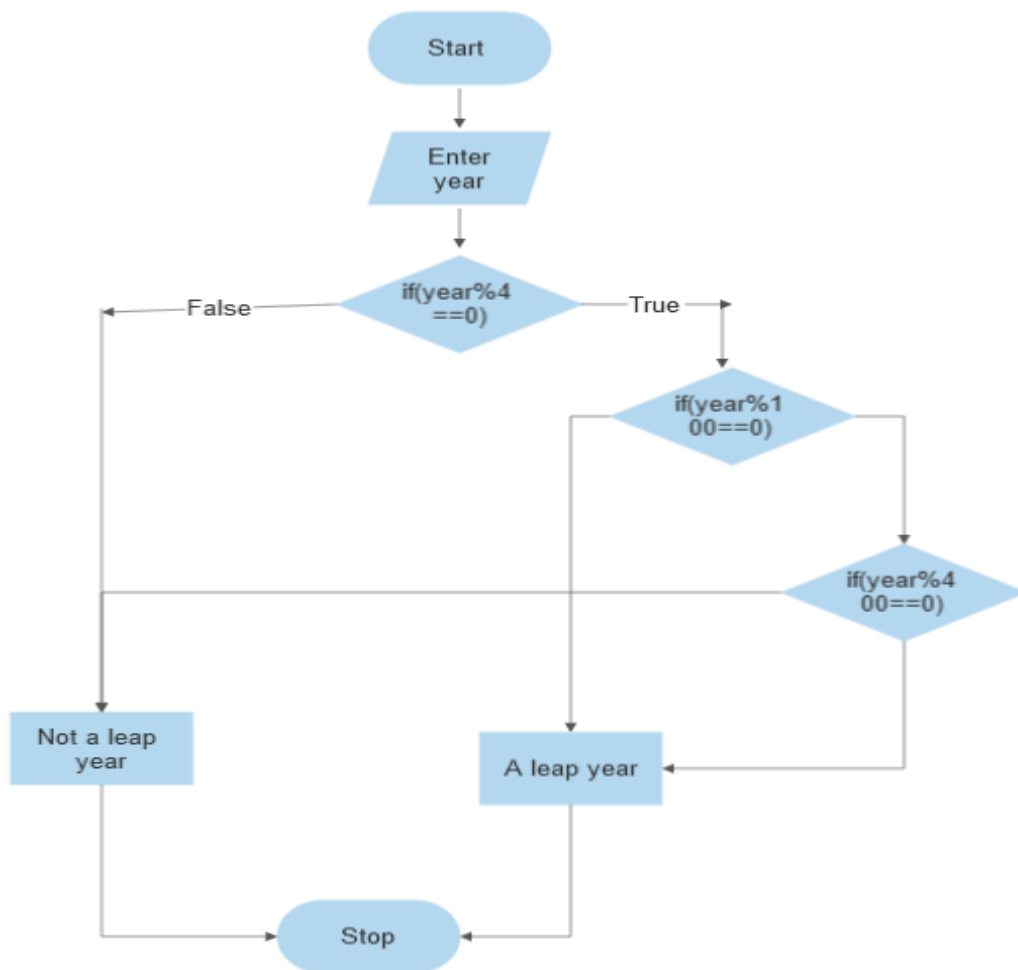
4. How to check whether the given number is positive or negative in java.



Algorithm

1. Start
2. Input a number.
3. Compare the number with zero.
4. if greater than zero then positive number.
5. if smaller than zero then negative number.
6. Stop.

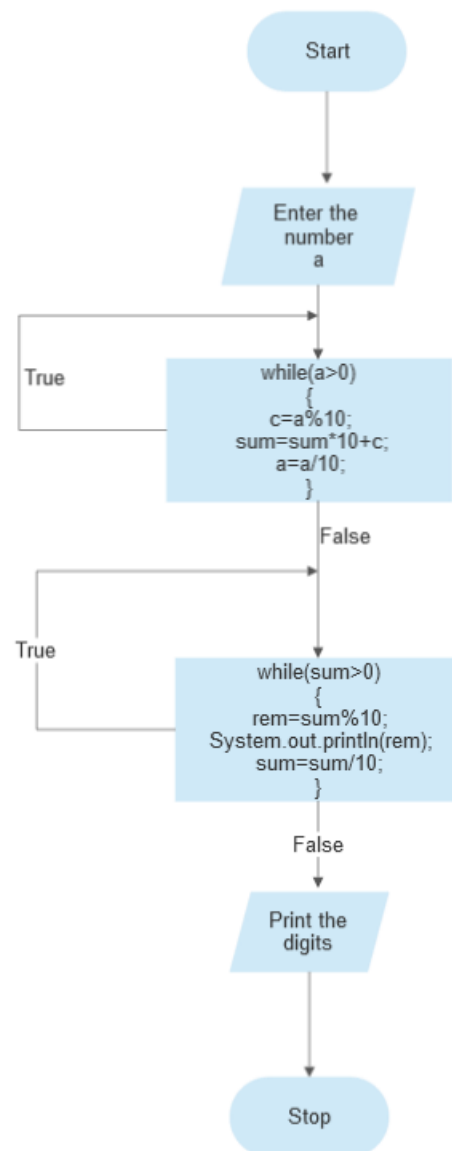
- 5.** Write a java program to find whether a given number is leap year or not.



Algorithm

1. Start
2. Get input year.
3. if year is not divisible by 4 then its not a loop year.
4. if divisible check for divisiblity by 100 if false its a leap year.
5. if True check for divisiblity by 400 if true then leap year else not.
6. Stop

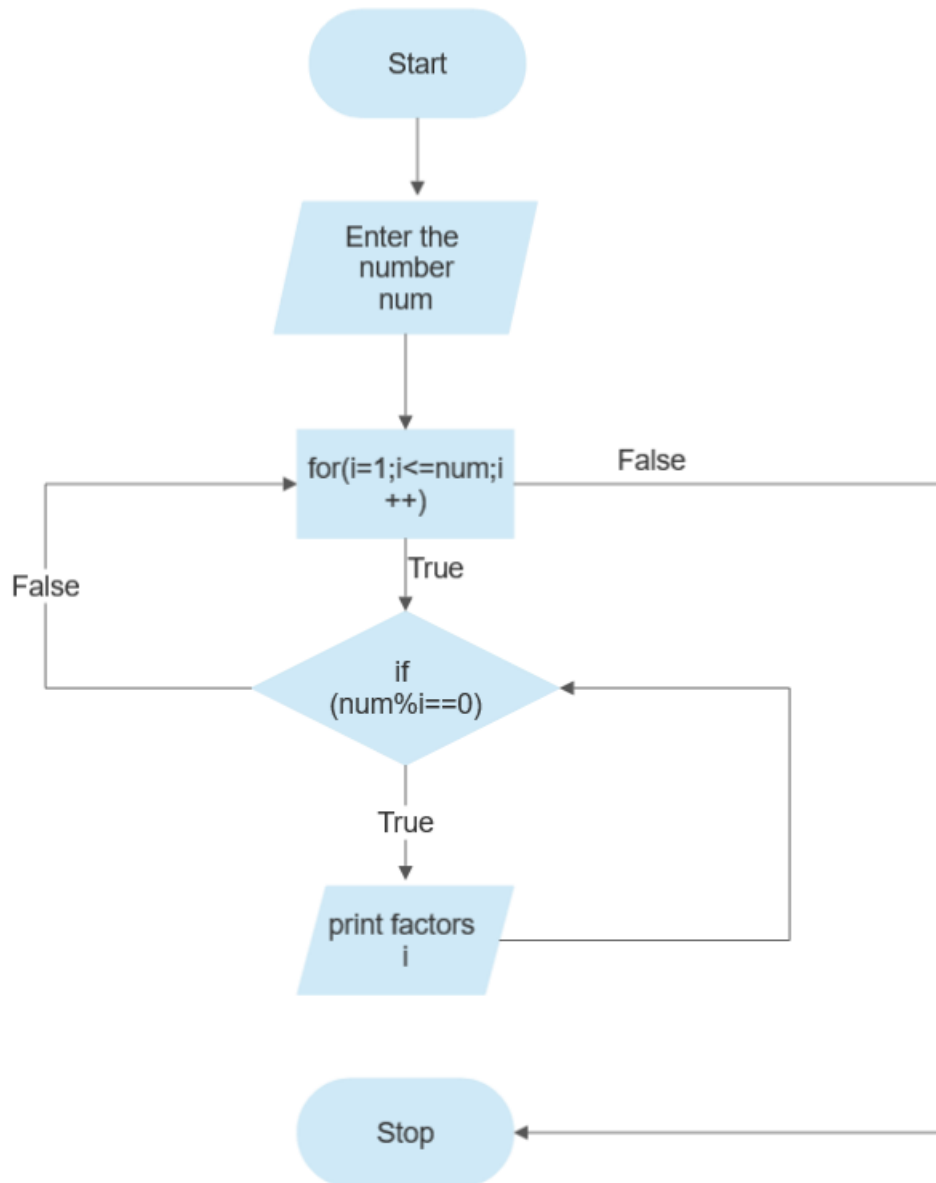
7. Write a java program to print the digits of the given number.



Algorithm

1. Start
2. Take a number as input.
3. Reverse the digit of the number.
4. Take modulus 10 of the number and print the number.
5. divide the number by 10 to remove the last digit of the number.

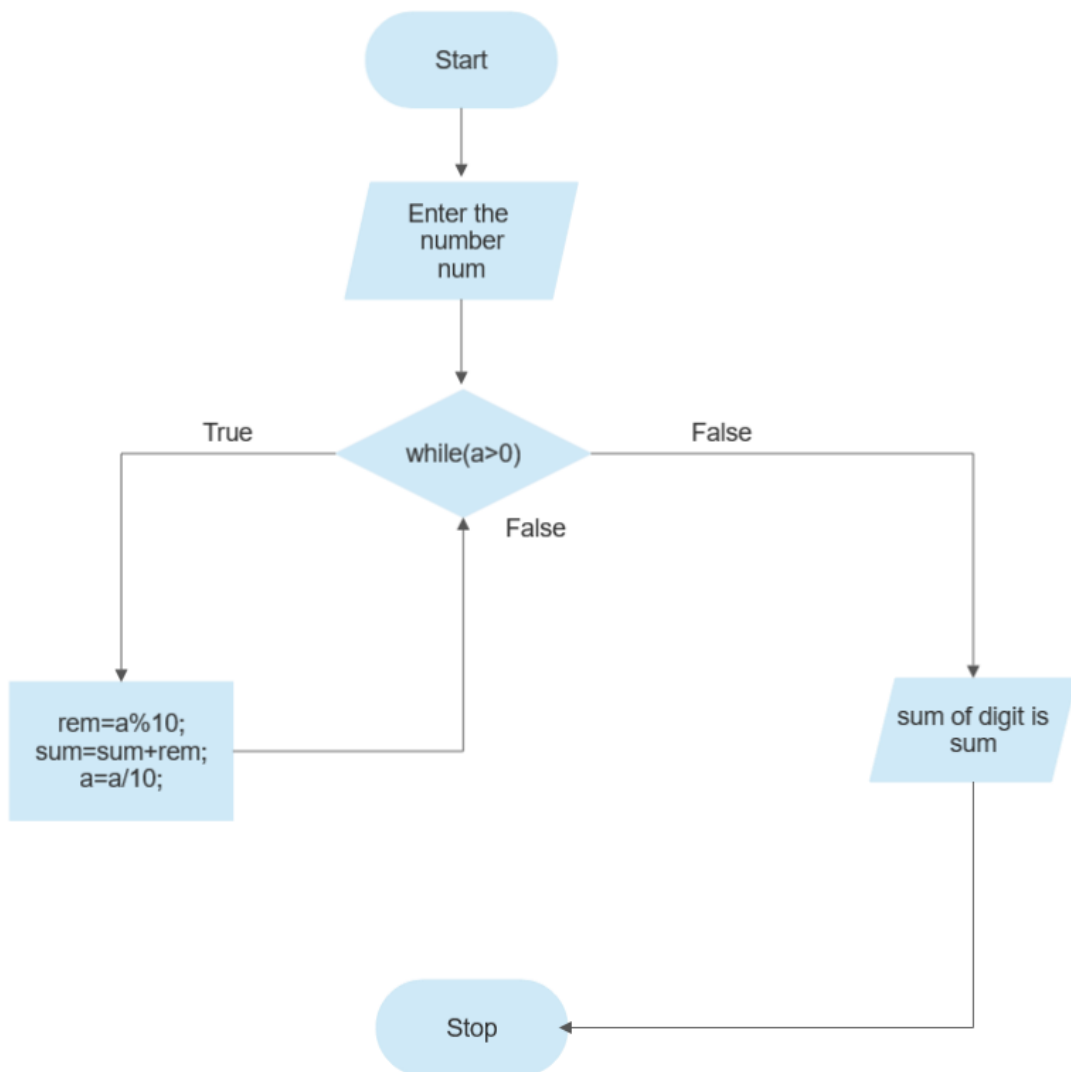
8. Write a java program to print all the factors of the given number.



Algorithm

1. Start
2. Take a number.
3. Divide that number from 1 to that number.
4. Output all the number with which the number is completely divisible.
5. Stop

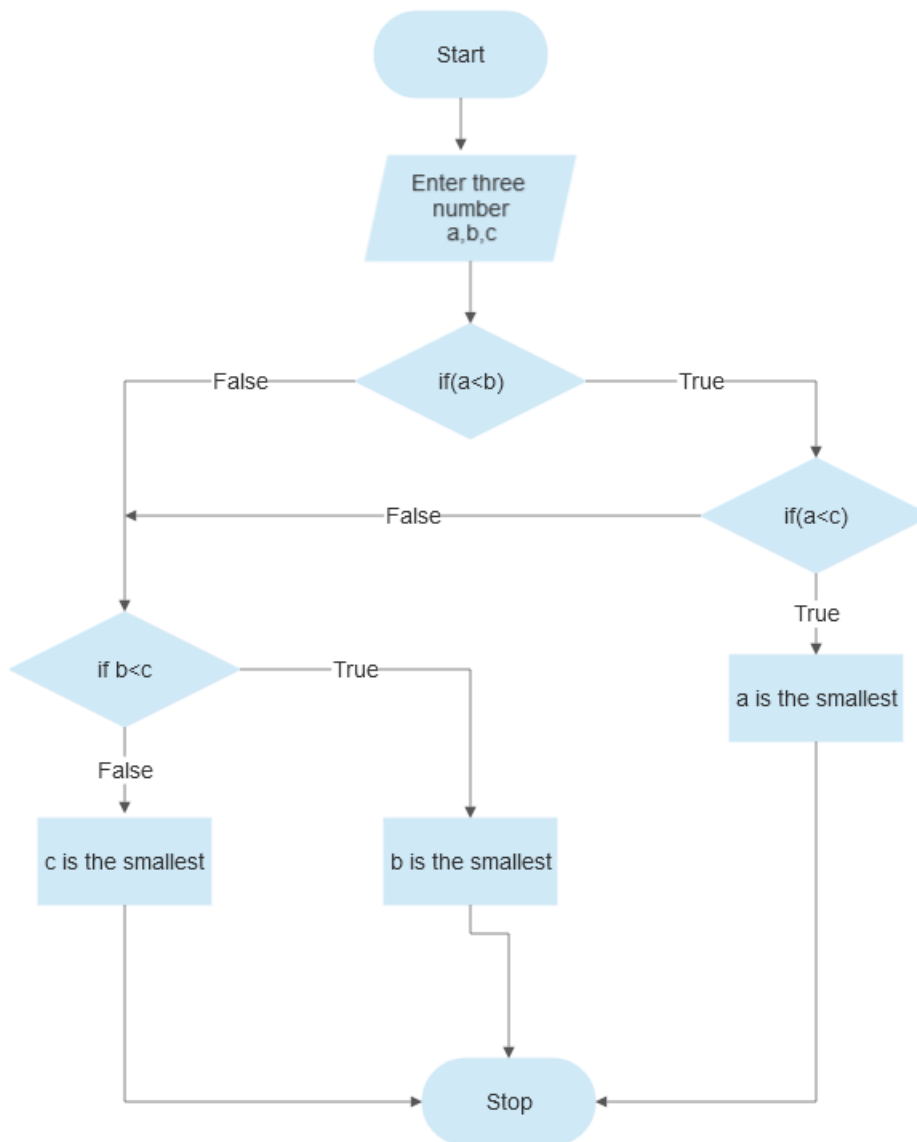
9. Write a java program to find the sum of the digits of a given number.



Algorithm:-

1. Start
2. Take a number as input.
3. Take modulus 10 of the input.
4. Store the remainder in another variable.
5. Divide the number by 10 to remove last digit.
6. Repeat till number become 0.
7. Print the variable that store the sum.
8. Stop

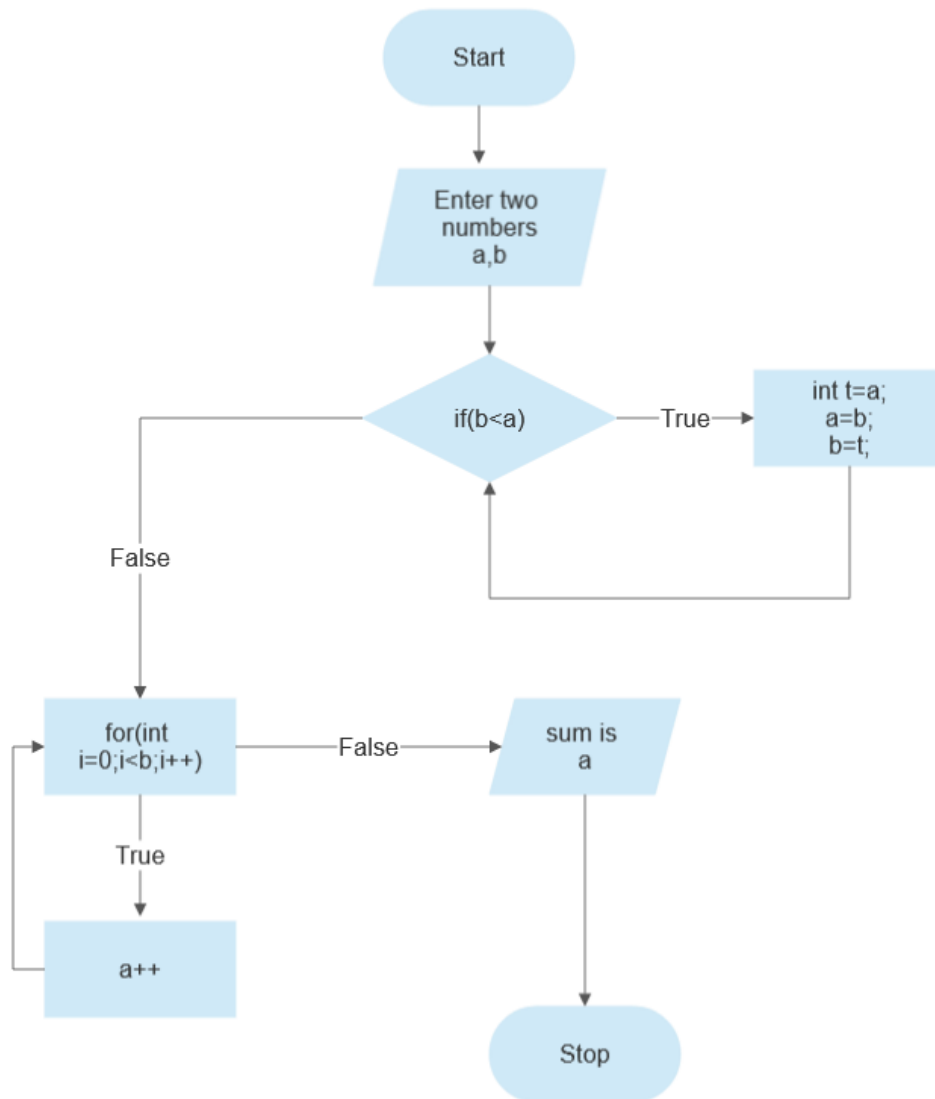
9. Write a java program to find the smallest of the three number.



Algorithm :-

1. Start
2. Take three number as input.
3. compare first number with second if true then compare with third
if that true ...a is the smallest number.
4. if third number smaller than first then compare second and third .
5. if step3 is false then compare second with third.
6. if true then b is smallest else third is smallest.
7. Stop

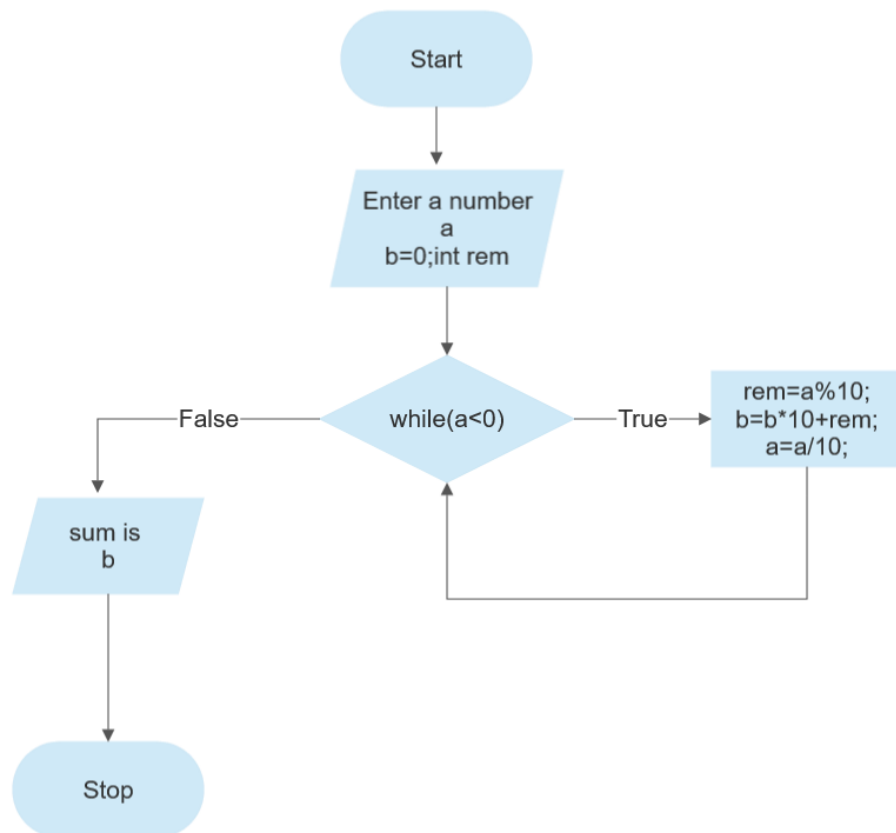
10. How to add two number without using the arithmetic operators in java.



Algorithm

1. Start
2. Input two number.
3. Increment first number by the value of second number using loop.
4. Output the final value after increment.
5. Stop

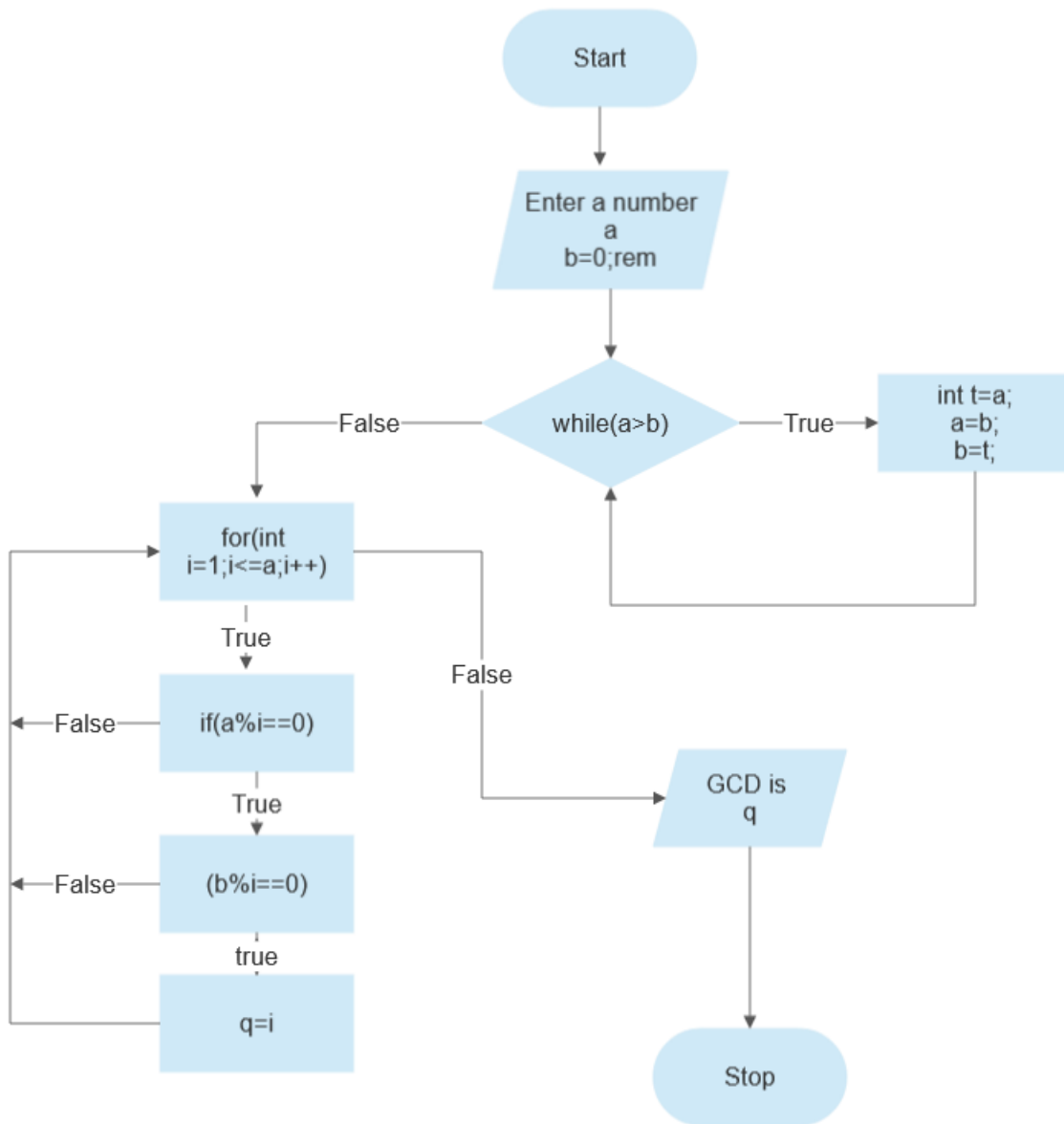
11. Write a java program to reverse a given number.



Algorithm

1. Start
2. Input a number.
3. Take remainder using modulus of 10. and initialise $b=0$
- 4 . $b=b*10+rem$;
5. divide the number to remove last digit.
- 5.repeat until num become zero
- 6.print b.
7. Stop

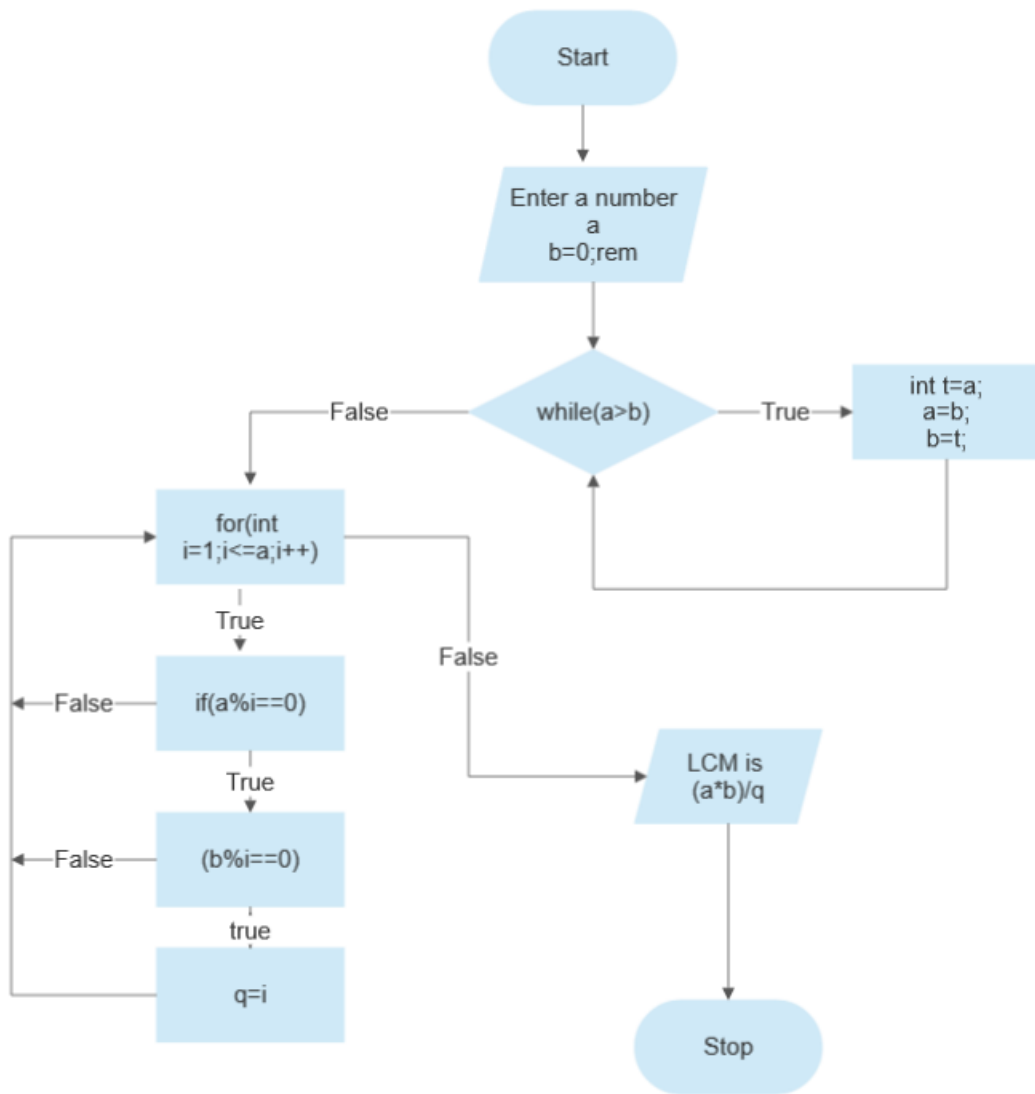
12. Write a java program to find the GCD of two given numbers.



Algorithm :

1. Start
2. Take two number as input.
3. if second number is smaller then swap the numbers.
4. Divide the first number from 1 to the number itself.
5. Store value in another variable.
6. Gcd is the value in another variable. Print it.
7. Stop.

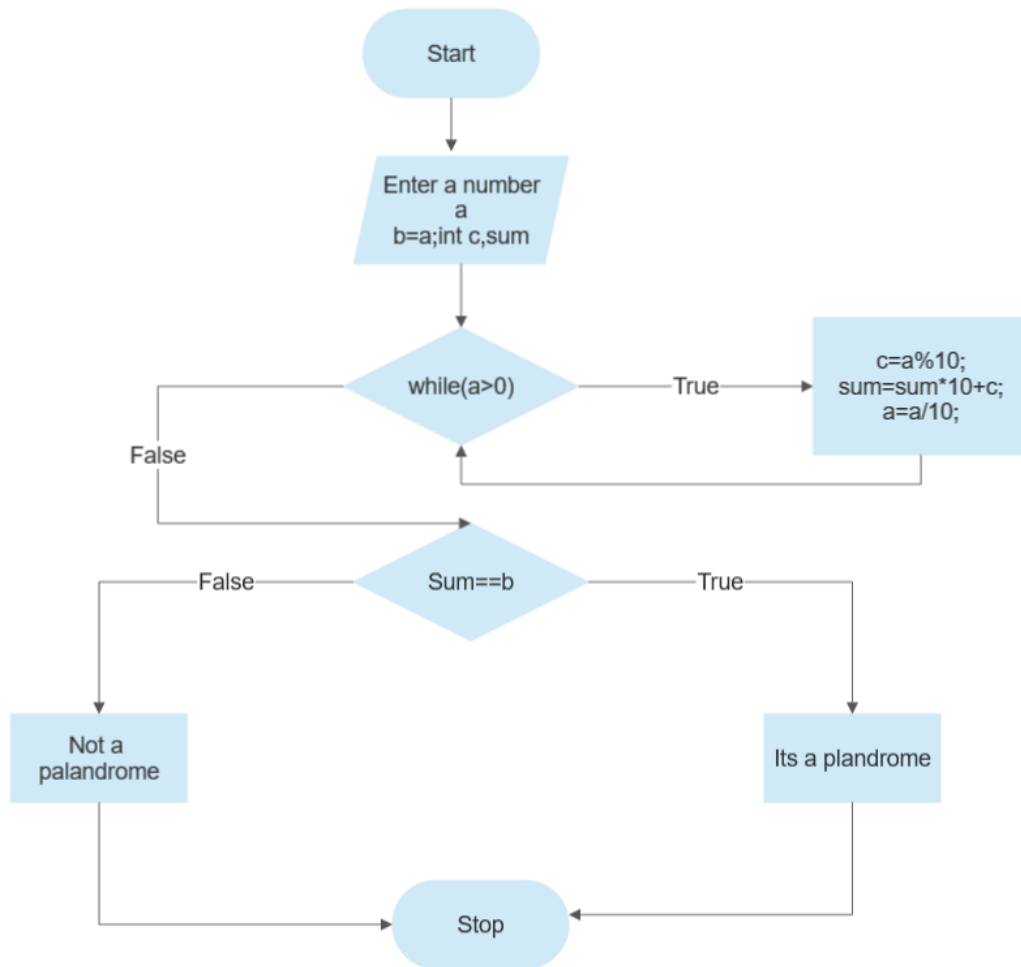
13. Write a java program to find the LCM of the two given numbers.



Algorithm :

1. Start
2. Take two number as input.
3. if second number is smaller then swap the numbers.
4. Divide the first number from 1 to the number itself.
5. Store value in another variable.
6. Gcd is the value in another variable.
7. Mutiply both number and divide with Gcd.
8. Print the output.
9. Stop.

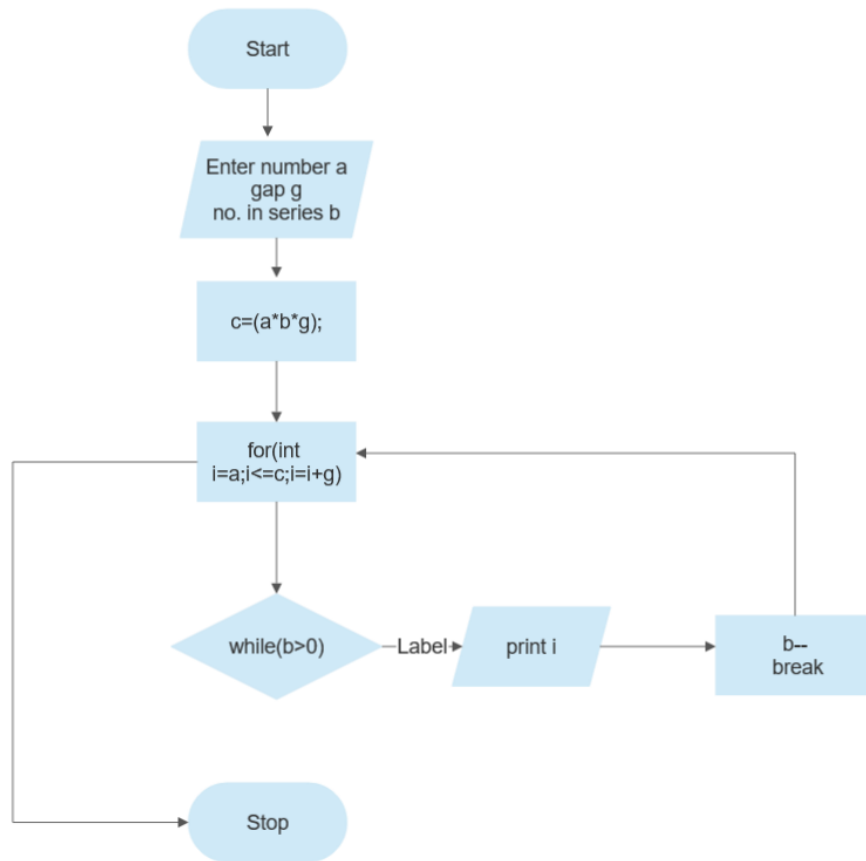
14. Check whether the given number is palindrome or not.



Algorithm :

1. Start.
2. Take a number. Also put its value in another variable.
3. Reverse the number.
4. Compare Reverse number value with value in another variable.
5. if True , then the number is pallandrome.
6. if false, then the number is not pallandrome.
7. Stop

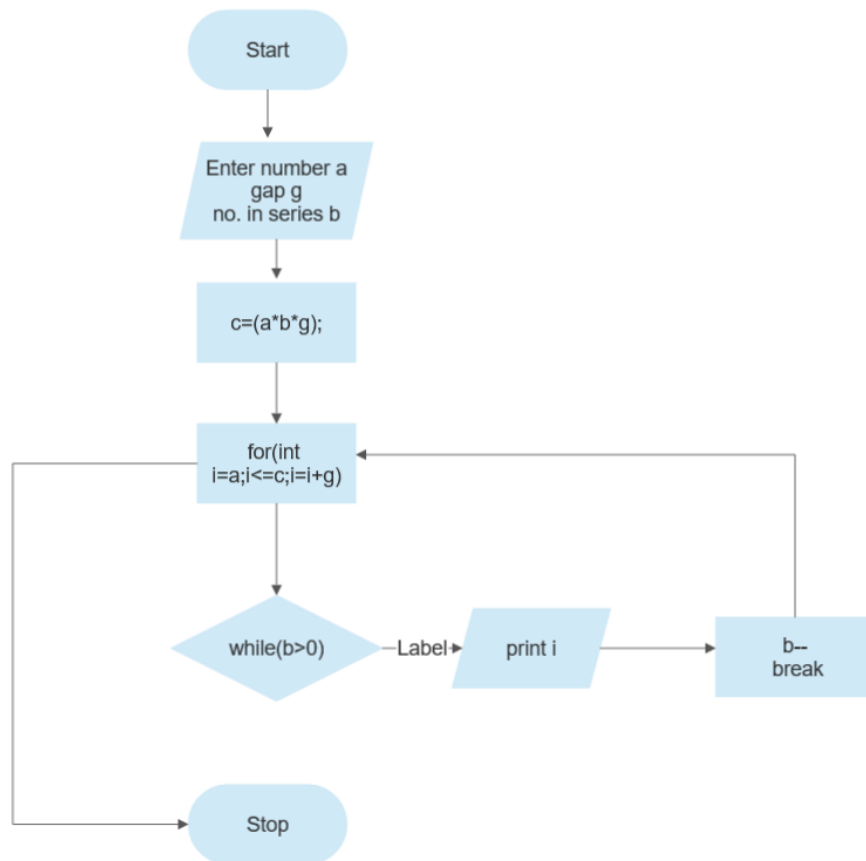
15. To print the following series even number series 2 4 6 8 10....



Algorithm :

1. Start
2. Take input(number,gap in series, range of the series)
3. In for loop initialise the number.
4. set condition equal to the range of the series.
5. set increment to the gap required in the series.
6. print Loop value.
7. Stop.

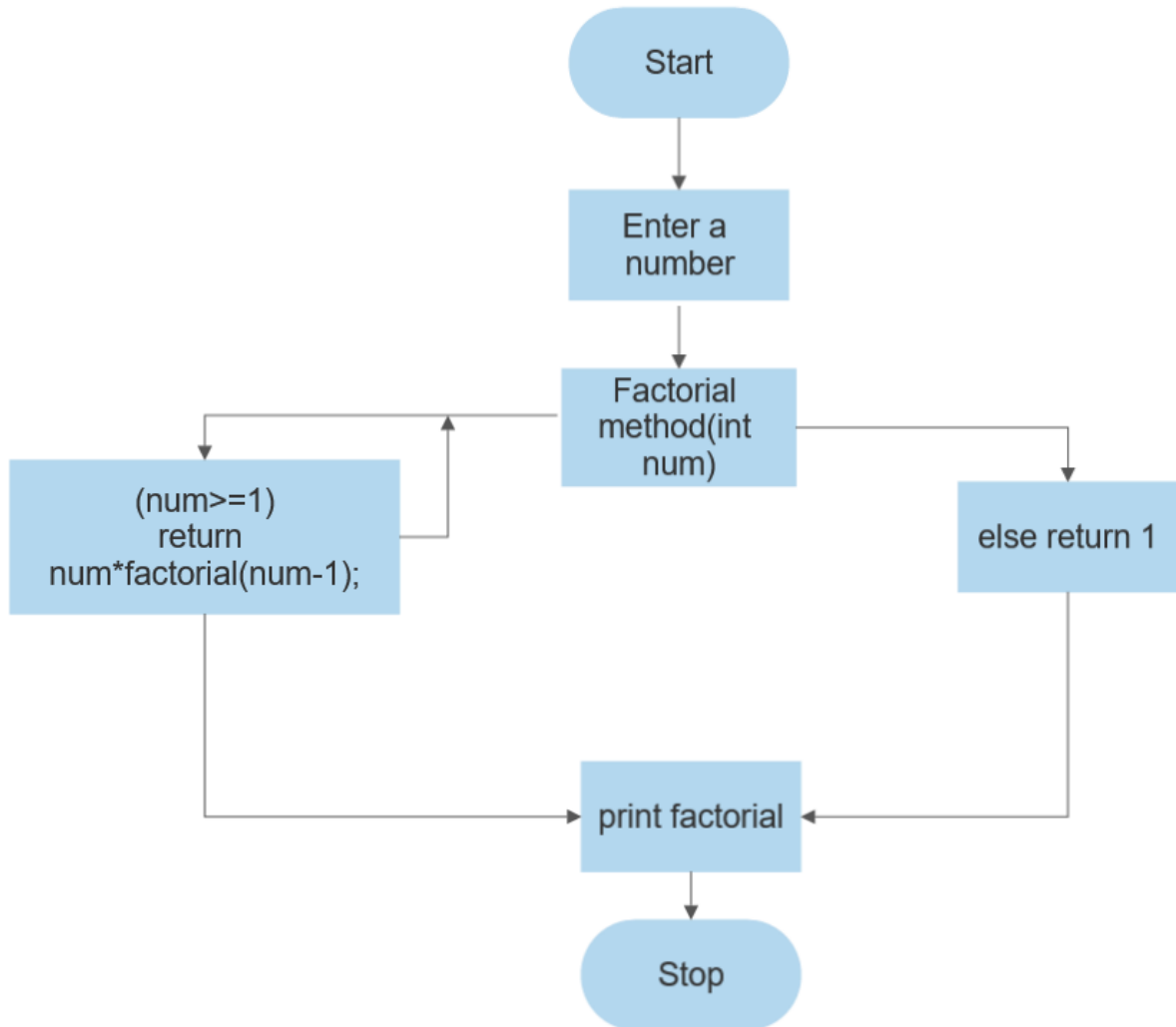
16. To print the following series odd number series 1 3 5 7 9....



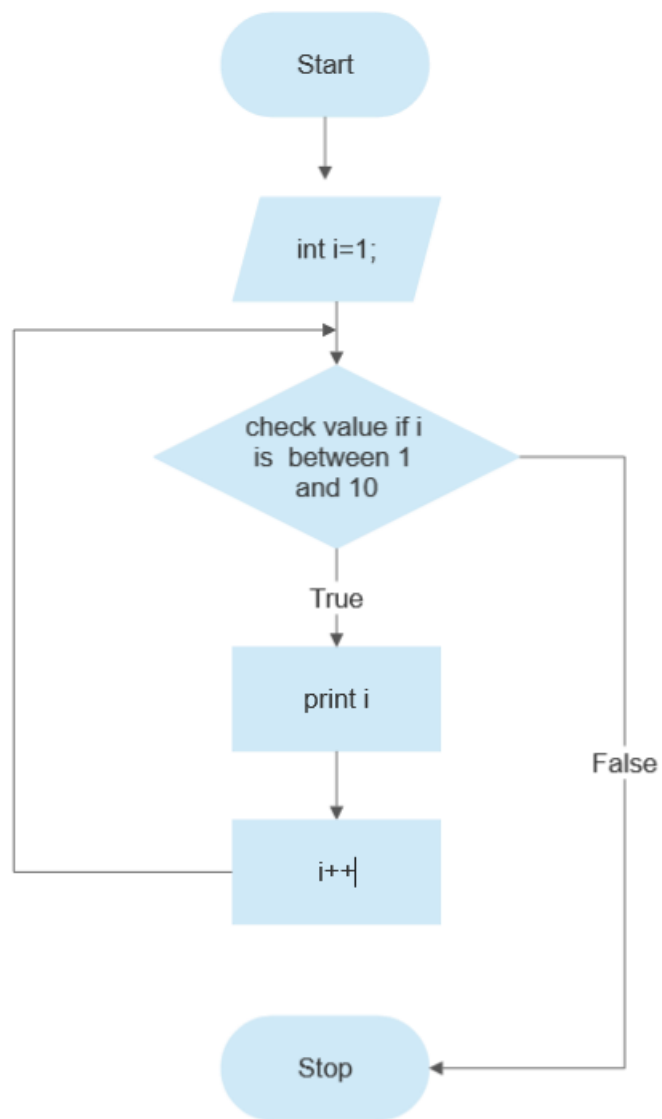
Algorithm :

1. Start
2. Take input(number,gap in series, range of the series)
3. In for loop initialise the number.
4. set condition equal to the range of the series.
5. set increment to the gap required in the series.
6. print Loop value.
7. Stop.

17. Find the factorial of a number using recursion.



18. Write a java program to print 1 to 10 without using loop.



Algorithm

1. Start
 2. Intialise i.
 3. Check if i lies between 1 to 10 .
 4. If true, print i , increment iand back to step 3.
 5. if False, stop.
 6. Stop.
-
19. Write a java program to LCM of two given numbers using prime factor method.
 20. Write a java program to print all the prime factors of the given number.