

## ❖ Find factorial of a Number

### Program1: Without using Function

```
import java.util.*;
class FactorialExample
{
    public static void main(String args[])
    {
        int i, number, fact=1;
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter your number: ");
        number = sc.nextInt();

        for(i=1;i<=number;i++)
        {
            fact=fact*i;
        }
        System.out.println("Factorial of "+number+" is: "+fact);
    }
}
```

### Program2: Using Function

```
import java.util.*;
class Test
{
    static int factorial(int n)
    {
        int fact = 1, i;
        for (i = 1; i <= n; i++)
            fact = fact*i;
        return fact;
    }
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter your number: ");
        int number = sc.nextInt();
        int fact = factorial(number);
        System.out.println("Factorial of " +number+ " is " + fact);
    }
}
```

## ❖ Find first “n” prime numbers

### Program1:

```
import java.util.*;
class prime
{
    public static void main(String args[])
    {
        int n=2, count=0;
        System.out.println("First 50 prime numbers are:");
        while(count!=50)
        {
            int flag=0;
            for(int i=2; i<=n/2; i++)
            {
                if(n%i == 0)
                {
                    flag=1;
                    break;
                }
            }
            if(flag==0)
            {
                System.out.print(n+", ");
                count++;
            }
            n++;
        }
    }
}
```

### **Program2:**

```
import java.util.*;
public class PrimeNumbers
{
    public static void main(String[] args)
    {
        int num, count;
        Scanner sc = new Scanner(System.in);

        System.out.print("Enter number upto which you want Prime Numbers: ");
        num = sc.nextInt();

        for (int i = 1; i <= num; i++)
        {
            count = 0;
            for (int j = 2; j <= i / 2; j++)
            {
                if (i % j == 0)
                {
                    count++;
                    break;        // Exit loop if a divisor is found
                }
            }
            if (count == 0)
            {
                System.out.println(i);
            }
        }
    }
}
```

### Program3:

```
class GFG
{
    static boolean isPrime(int n)
    {
        //since 0 and 1 is not prime return false.
        if(n==1 || n==0) return false;

        //Run a loop from 2 to n-1
        for(int i=2; i<n; i++)
        {
            if(n%i==0) return false;
        }
        //otherwise, n is prime number.
        return true;
    }

    // Driver code
    public static void main (String[] args)
    {
        int N = 100;

        for(int i=1; i<=N; i++)
        {
            if(isPrime(i))
            {
                System.out.print(i + " ");
            }
        }
    }
}
```