

Program 6. Factorial.

```
1 package intro;
2
3 import java.util.*;
4
5 public class factorial {
6
7     public static void main(String[] args) {
8         // TODO Auto-generated method stub
9
10        Scanner sc = new Scanner(System.in);
11        int prod = 1;
12        System.out.println("Enter the number ");
13        int n = sc.nextInt();
14        for( int i = n ; i > 0 ; i --)
15        {
16            prod = prod*i;
17        }
18        System.out.println(" the factorial of " + n +" is " + prod);
19    }
20 }
21
22
```

<terminated> factorial [Java Application] C:\Program Files\Java\jdk-14.0.2\bin\javaw.e
Enter the number
5
the factorial of 5 is 120

Program 7. Fibonacci

```
1 package intro;
2
3 import java.util.Scanner;
4
5 public class fibonacci {
6
7     public static void main(String[] args) {
8         // TODO Auto-generated method stub
9
10        Scanner sc = new Scanner(System.in);
11
12        int n = sc.nextInt();
13        int a = 0, b = 1;
14        int c, i;
15        System.out.print(a+ " " + b+ " ");
16        for(i = 0 ; i < n-2 ; i++)
17        {
18            c=a+b;
19            System.out.print(c+ " ");
20            a=b;
21            b=c;
22        }
23    }
24 }
25
```

<terminated> fibonacci [Java Application] C:\Program Files\Java\jdk-14.0.2\bin\j
8
0 1 1 2 3 5 8 13

Program 8. Prime or not

```
1 package intro;
2
3 import java.util.Scanner;
4
5 public class primeOrNot {
6
7     public static void main(String[] args) {
8         // TODO Auto-generated method stub
9         Scanner sc = new Scanner(System.in);
10        System.out.println(" Enter the number");
11        int n = sc.nextInt();
12        boolean p = true;
13        for (int i = 2 ; i *i <= n ; i++)
14        {
15            if(n%i==0) {
16                p = false;
17                break;
18            }
19        }
20        if(p)
21            System.out.println(n+ " is prime ");
22        else
23            System.out.println(n+ " is not prime");
24    }
25 }
26
27
```

<terminated> primeOrNot [Java Application] C:\Program Files\Java\jdk-14.0.2\bin\ja
Enter the number
13
13 is prime

Program 9. sum series type 1

```
1 package intro;
2 // series is 1+ 1/2+ 1/3+ 1/4+ ..... 1/n. input n and print the sum
3 import java.util.Scanner;
4
5 public class sumOfSeries1 {
6
7     public static void main(String[] args) {
8         // TODO Auto-generated method stub
9         Scanner sc = new Scanner(System.in);
10        System.out.println("Enter the number ");
11        int n = sc.nextInt();
12        float sum = 0;
13        for ( float i =1;i <=n;i++)
14        {
15            sum = sum + 1/i;
16        }
17        System.out.println(" the sum of the series 1+ 1/2+ 1/3+ 1/4+ ..... 1/n is ");
18        System.out.println(sum);
19    }
20 }
21
22
```

<terminated> sumOfSeries1 [Java Application] C:\Program Files\Java\jdk-14.0.2\bin\java.exe
Enter the number
2
the sum of the series 1+ 1/2+ 1/3+ 1/4+ 1/n is
1.5

Program 10. Sum series type 2

```
1 package intro;
2 //series is 1 - 1/2 + 1/3 - 1/4+ ..... 1/n. input n and print the sum
3 import java.util.Scanner;
4
5 public class sumOfSeries2 {
6
7     public static void main(String[] args) {
8         // TODO Auto-generated method stub
9         Scanner sc = new Scanner(System.in);
10        System.out.println("Enter the number ");
11        int n = sc.nextInt();
12        float sum = 0;
13        for ( float i =1;i <=n;i++)
14        {
15            if (i%2 != 0)
16                sum = sum + 1/i;
17            else
18                sum = sum - 1/i;
19        }
20        System.out.println(" the sum of the series 1 - 1/2 + 1/3 - 1/4+ ..... 1/n. is ");
21        System.out.println(sum);
22    }
23 }
24
25
```

<terminated> sumOfSeries2 [Java Application] C:\Program Files\Java\jdk-14.0.2\bin\java.exe
Enter the number
5
the sum of the series 1 - 1/2 + 1/3 - 1/4+ 1/n. is
0.78333336