

```
/*Check factorial of a number
```

Algorithm

- 1) User input
- 2) Forward or backward looping statement
- 3) Multiply the "b" with the every iteration of "i" and store the result in "b"
- 4) Print the result

Source: <https://www.youtube.com/watch?v=HWCWqZzHUtw>

```
*/
```

```
import java.util.Scanner;    // for taking input from user we need to import Scanner class

class Factorial
{
    int i,b=1;

    void disp()
    {
        Scanner n=new Scanner(System.in);    //creating object of Scanner class and passing
        "System.in" in Scanner constructor as an argument
        System.out.println("Enter your number = ");
        int a=n.nextInt();    // nextInt() method used for taking interger input from user.

        for(i=a;i>0;i--)    // backward looping statement
        {
            b=b*i;    //storing in third variable(b) after multiplying it(b) with the looping
            "i"

        }
        System.out.println("Factorial of "+a+" is = "+b);

        /*for(i=1;i<=a;i++)    // forward looping statement
        {
            b=b*i;    ////storing in third variable(b) after multiplying it with the
            looping "i" and third variable "b"
        }
        System.out.println("Factorial of "+a+" is = "+b);*/
    }
}

class Factorial_Main
{
    public static void main(String args[])
    {
        Factorial obj1=new Factorial();
        obj1.disp();
    }
}
```

Output

```
C:\Users\Dhruv\Desktop\Java>java Factorial_Main
Enter your number =
5
Factorial of 5 is = 120

C:\Users\Dhruv\Desktop\Java>java Factorial_Main
Enter your number =
6
Factorial of 6 is = 720
```