1. Review the Java code below then Re-write the whole program to improve the source code.

```
public class Factorial

{

public static void main(String[] args)

{ final int NUM = 100;

for(int i = 0; i < NUM; i++)

System.out.println( i + "! is " + factorial(i));

}


public static int factorial(int n)

{ int result = 1;

for(int i = 2; i <= n; i++)

result *= i;

return result;

}

}
```

```
public class Factorial {


   private static final int NUM = 100;

   public static void main(String[] args) {
      for (int i = 0; i < NUM; i++) {
         System.out.println(i + "!  =  " + factorial(i));
      }
   }


   public static long factorial(int n) {

      if (n == 0 || n == 1) {
         return 1;
      }

      long result = 1;
      for (int i = 2; i <= n; i++) {
         result *= i;
      }
      return result;
   }
}
```

New User