Factorial of a number in Java

Factorial of a non-negative integer, is multiplication of all integers smaller than or equal to n.

Example

Input: n = 6
Output: Factorial of given number is 720
Explanation: Factorial of 6 is 6*5*4*3*2*1 which is 720.

Iterative Solution:

```java
// Java program to find factorial of given number

class GfG {

    public static void main(String[] args) {

        int n = 6;

        int i = 1;

        while (n > 0) {

            i = i * n;

            n--;

        }
```

```java
        System.out.println("Factorial of given number is "

                            + i);

    }

}
```

Output

Factorial of given number is 720

Time Complexity: O(n)
Auxiliary Space: O(1)