

```
1 using System;
2 using System.Collections.Generic;
3 using System.IO;
4 using System.Linq;
5 using System.Text;
6
7 namespace Algorithms
8 {
9     public class Factorial
10    {
11        public static void Main()
12        {
13            new Factorial().Run(Console.In, Console.Out);
14        }
15        public void Run(TextReader reader, TextWriter writer)
16        {
17            writer.Write(F(15));
18            reader.ReadLine();
19        }
20        /// <summary>
21        /// Computes n! recursively
22        /// </summary>
23        /// <param name="n">A nonnegative integer n</param>
24        /// <returns>The value of n!</returns>
25        public int F(int n)
26        {
27            if (n == 0) return 1;
28            else return F(n - 1) * n;
29        }
30    }
31 }
32
```