**Train Problem II**

**Time Limit: 2000/1000 MS (Java/Others)    Memory Limit: 65536/32768 K (Java/Others)  
Total Submission(s): 6300    Accepted Submission(s): 3420**

**Problem Description**

As we all know the Train Problem I, the boss of the Ignatius Train Station want to know if all the trains come in strict-increasing order, how many orders that all the trains can get out of the railway.

**Input**

The input contains several test cases. Each test cases consists of a number N(1<=N<=100). The input is terminated by the end of file.

**Output**

For each test case, you should output how many ways that all the trains can get out of the railway.

**Sample Input**

1

2

3

10

**Sample Output**

1

2

5

16796

***Hint***

The result will be very large, so you may not process it by 32-bit integers.

**Author**

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**Recommend**

We have carefully selected several similar problems for you:  [1133](http://acm.hdu.edu.cn/showproblem.php?pid=1133) [1130](http://acm.hdu.edu.cn/showproblem.php?pid=1130) [1131](http://acm.hdu.edu.cn/showproblem.php?pid=1131) [1134](http://acm.hdu.edu.cn/showproblem.php?pid=1134) [1267](http://acm.hdu.edu.cn/showproblem.php?pid=1267)