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Summary

Title	Test Problem with Mathematical Expressions
Source	Test Platform
URL	https://example.com/problem/1
Difficulty	Easy
Tags	
Scraped on	2025-08-25

Problem Statement

Given integers N and M, find the number of ways to arrange them such that 1 ≤ N ≤ 10^6 and 2 ≤ M ≤ N × 2. The answer should be computed modulo 10^9 + 7.

Input

First line contains T (1 ≤ T ≤ 5). Each test case contains two integers N and M (1 ≤ N ≤ 1000, 1 ≤ M ≤ 1000).

Output

For each test case, output the result on a separate line.

Constraints

1 ≤ T ≤ 5\n1 ≤ N ≤ 1000\n1 ≤ M ≤ 1000\nN × M ≤ 10^6\nThe sum of all test cases is at most 6 × 10^5

Sample Test Cases

Sample 1

Input:

```
1\n3 4
```

Output:

```
12
```

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