H. Count Clog

Score: 1

CPU: 5s
Memory: 1024MB

Given **N** distinct integers from 1 to **N**, you have to find the number of ways the **N** integers can be rearranged in **M** empty slots such that, no integer matches with its slot index. Note that, slots are indexed from 1 to **M**.

For example, if **N = 3** and **M = 5**, then here is a possible arrangement:

2		1	3	

Here 2 is placed in slot 1, 1 is placed in slot 3 and 3 is placed in slot 4. Slot 2 and 5 are kept empty.

Input

An integer **T <= 200**, the number of test cases. Next **T** lines will contain two space separated integers **N** and **M**.

Constraints:

0 < N <= M <= 100,000

Output

Print the number of ways modulo **23377788**.

Sample

Input	Output
1 2 3	Case 1: 3

Explanation:
Let us consider 0 as blank space and check the value for sample input.
1 2 3 (m=3 positions)
1 2 0 (invalid)
1 0 2 (invalid)
2 1 0 (valid)
2 0 1 (valid)
0 1 2 (valid)
0 2 1 (invalid)