

# Sherlock and Permutations



Watson asks Sherlock:

Given a string  $S$  of  $N$  0's and  $M$  1's, how many unique permutations of this string start with 1?

Help Sherlock by printing the answer modulo  $(10^9 + 7)$ .

## Input Format

First line contains  $T$ , the number of test cases.

Each test case consists of  $N$  and  $M$  separated by a space.

## Output Format

For each test case, print the answer modulo  $(10^9 + 7)$ .

## Constraints

$1 \leq T \leq 200$

$1 \leq N, M \leq 1000$

## Sample Input

```
2
1 1
2 3
```

## Sample Output

```
1
6
```

## Explanation

Test1: Out of all unique permutations ie. 01 and 10, only second permutation satisfies. Hence, output is 1.

Test2: Out of all unique permutations ie. 00111 01011 01101 01110 10011 10101 10110 11001 11010 11100, only 10011 10101 10110 11001 11010 11100 satisfy. Hence, output is 6.