Merge List

Shashank is very excited after learning about the *linked list*. He learned about how to *merge* two linked lists. When we merge two linked lists, the order of the elements of each list doesn't change. For example, if we merge $[1, 2, 3]$ and $[4, 5, 6]$, $[1, 4, 2, 3, 5, 6]$ is a valid merge, while $[1, 4, 3, 2, 5, 6]$ is not a valid merge because 3 is appears before 2.

Shashank wants you to solve a problem for him: You are given two lists having sizes N and M. How many ways can we merge both the lists? It is given that all $N + M$ elements are distinct. As your answer can be quite large, Shashank wants you to print it $\mod 10^9 + 7$.

Input Format

The first line contains an integer T, the number of test cases.
Each of the next T lines contains two integers N and M.

Output Format

Print the value of the answer $\mod 10^9 + 7$.

Constraints

$1 \leq T \leq 10$
$1 \leq N \leq 100$
$1 \leq M \leq 100$

Sample Input

```
1
2 2
```

Sample Output

```
6
```

Explanation

Suppose the two lists are $[1, 2]$ and $[3, 4]$. The different ways of merging these lists are given below:

$[1, 2, 3, 4]$
$[1, 3, 2, 4]$
$[3, 4, 1, 2]$
$[3, 1, 4, 2]$
$[1, 3, 4, 2]$
$[3, 1, 2, 4]$