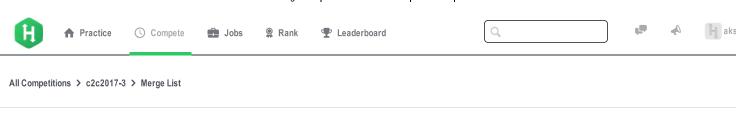
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Merge List



Problem Submissions Leaderboard Discussions

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 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.

Constraints

- $1 \le T \le 10$
- $1 \le N \le 100$
- $1 \le M \le 100$

Output Format

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

Sample Input 0

22

Sample Output 0

6

Explanation 0

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]

f y i

Submissions: 10 Max Score: 40

Difficulty: Medium
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Cu	rrent Buffer (saved locally, editable) 🤌 🕥	Python 3	~	5.7	•
1					
<u>1</u> U	pload Code as File Test against custom input		Run Code	Subm	it Code

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