



Requirement

by HackerRank

Problem

Submissions

Leaderboard

Discussions

Editorial

There are n variables and m requirements. Requirements are represented as $(x \leq y)$, meaning that the x^{th} variable must be less than or equal to the y^{th} variable.

Your task is to assign non-negative numbers smaller than **10** to each variable and then calculate the number of different assignments satisfying all requirements. Two assignments are different if and only if at least one variable is assigned to a different number in both assignments. Print your answer modulo $10^3 + 7$.

Input Format

The first line contains **2** space-separated integers, n and m , respectively. Each of the m subsequent lines contains **2** space-separated integers describing the respective x and y values for an $(x \leq y)$ requirement.

Constraints

- $0 < n < 14$
- $0 < m < 200$
- $0 \leq x, y < n$

Output Format

Print your answer modulo $10^3 + 7$.

Sample Input

```
6 7
1 3
0 1
2 4
0 4
2 5
3 4
0 2
```

Sample Output


```
1000
```

 Submissions: [483](#)

Max Score: 80

Difficulty: Advanced

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```
1 import java.io.*;
2 import java.util.*;
3 import java.text.*;
4 import java.math.*;
5 import java.util.regex.*;
6
7 public class Solution {
8
9     public static void main(String[] args) {
10         /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
11     }
12 }
```

Line: 1 Col: 1

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Test against custom input

Run Code

Submit Code

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