Problem Q. Path in a Matrix

OS Linux

Given a matrix, find the number of ways to reach from the top-left cell to the right-bottom cell. At any step, from the current cell (i,j) you can either move to (i+1,j) or (i,j+1) or (i+1, j+1). Please note that certain cells are forbidden and cannot be used.

Input Format

First line of input contains T - number of test cases. First line of each test case contains N, M - size of the matrix and B - number of forbidden cells. Its followed by B lines each containing a pair (i,j) - index of the forbidden cell.

Constraints

20 points
1 <= N, M <= 10

80 points
1 <= N, M <= 100

General Constraints
1 <= T <= 500
0 <= i < N
0 <= j < M

Output Format

For each test case, print the number of ways, separated by newline. Since the output can be very large, print output % 1000000007

Sample Input 0

```
5
5 2 1
2 0
7 3 1
1 0
6 3 1
5 2
2 9 1
```

```
0 1
5 6 2
0 1
1 0
```

Sample Output 0

```
4
24
0
2
129
```

Explanation 0

Self Explanatory