Queens on Board

by HackerRank

Problem Submissions Leaderboard Discussions

Queens on Board

You have an *N* * *M* chessboard on which some squares are blocked out. In how many ways can you place one or more queens on the board, such that, no two queens attack each other? Two queens attack each other, if one can reach the other by moving horizontally, vertically, or diagonally without passing over any blocked square. At most one queen can be placed on a square. A queen cannot be placed on a blocked square.

Input Format

The first line contains the number of test cases *T*. *T* test cases follow. Each test case contains integers *N* and *M* on the first line. The following *N* lines contain *M* characters each, and represent a board. A '#' represents a blocked square and a '.' represents an unblocked square.

Constraints

1 <= *T* <= 100
1 <= *N* <= 50
1 <= *M* <= 5

Output Format

Output *T* lines containing the required answer for each test case. As the answers can be really large, output them modulo 10^9+7.

Sample Input

```
4
3 3
...
...
...
3 3
.#.
.#.
...
2 4
.#..
....
1 1
#
```

Sample Output

```
17
18
14
0
```

Submissions:494

Max Score:70
Difficulty: Hard

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Current Buffer (saved locally, editable)

Java 7

```
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

Upload Code as File Test against custom input Run Code Submit Code