

Submissions

Year of More Code Jam

5pt Not attempted  
16/17 users correct  
(94%)

12pt Not attempted  
9/15 users correct  
(60%)

Min Perimeter

5pt Not attempted  
17/19 users correct  
(89%)

15pt Not attempted  
4/13 users correct  
(31%)

Doubly-sorted Grid

10pt Not attempted  
16/16 users correct  
(100%)

20pt Not attempted  
4/5 users correct  
(80%)

Wi-fi Towers

3pt Not attempted  
22/22 users correct  
(100%)

25pt Not attempted  
9/12 users correct  
(75%)

Marbles

7pt Not attempted  
16/19 users correct  
(84%)

32pt Not attempted  
2/8 users correct  
(25%)

Lights

21pt Not attempted  
2/4 users correct  
(50%)

45pt Not attempted  
1/2 users correct  
(50%)

Top Scores

ACRush	168
qizichao	87
wata	81
ZhukovDmitry	70
dzhulgakov	69
nika	62
Vitaliy	62
kalinov	55
halyavin	54
bmerry	50

Problem C. Doubly-sorted Grid

This contest is open for practice. You can try every problem as many times as you like, though we won't keep track of which problems you solve. Read the Quick-Start Guide to get started.

Small input  
10 points

Solve C-small

Large input  
20 points

Solve C-large

Problem

A rectangular grid with lower case English letters in each cell is called *doubly sorted* if in each row the letters are non-decreasing from the left to the right, and in each column the letters are non-decreasing from the top to the bottom. In the following examples, the first two grids are doubly sorted, while the other two are not:

abc	ace	aceg	base
def	ade	cdef	base
ghi	bdg	xyxy	base

You are given a partially-filled grid, where some of the cells are filled with letters. Your task is to compute the number of ways you can fill the rest of the cells so that the resulting grid is doubly sorted. The answer might be a big number; you need to output the number of ways modulo 10007.

Input

The first line of input gives the number of test cases, **T**. **T** test cases follow. Each test case starts with a line containing two integers **R** and **C**, the number of rows and the number of columns respectively. This is followed by **R** lines, each containing a string of length **C**, giving the partially-filled grid. Each character in the grid is either a lower-case English letter, or '.', indicating that the cell is not filled yet.

Output

For each test case, output one line. That line should contain "Case #X: y", where **X** is the case number starting with 1, and **y** is the number of possible doubly-sorted grids, modulo 10007.

Limits

1 ≤ **T** ≤ 40

Each character in the partially-filled grid is either '.' or a lower-case English letter.

Small dataset

1 ≤ **R**, **C** ≤ 4

Large dataset

1 ≤ **R**, **C** ≤ 10

Sample

Input	Output
3	Case #1: 23
2 2	Case #2: 7569
ad	Case #3: 0
c.	
3 3	
.a.	
a.z	
.z.	
4 4	
....	
.g..	
.cj.	
....	

---

All problem statements, input data and contest analyses are licensed under the [Creative Commons Attribution License](#).

© 2008-2017 Google [Google Home](#) - [Terms and Conditions](#) - [Privacy Policies and Principles](#)

Powered by



Google Cloud Platform