

Assignment: 编程作业—深搜1

You have not submitted. You must earn 50/100 points to pass.

Deadline Pass this assignment by June 12, 11:59 PM PDT

Instructions (</learn/suanfa-jichu/programming/bAErK/bian-cheng-zuo-ye-shen-sou-1>) Discussions (</learn/suanfa-jichu/programming/bAErK/bian-cheng-zuo-ye-shen-sou-1>)

编程题 # 1: 棋盘问题

来源: POJ (<http://cxsjsxmooc.openjudge.cn/test2/>) (Coursera声明: 在POJ上完成的习题将不会计入Coursera的最后成绩。)

注意: 总时间限制: **1000ms** 内存限制: **65536kB**

描述

在一个给定形状的棋盘（形状可能是不规则的）上面摆放棋子，棋子没有区别。要求摆放时任意的两个棋子不能放在棋盘中的同一行或者同一列，请编程求解对于给定形状和大小的棋盘，摆放k个棋子的所有可行的摆放方案C。

输入

输入含有多组测试数据。

每组数据的第一行是两个正整数，n k，用一个空格隔开，表示了将在一个n*n的矩阵内描述棋盘，以及摆放棋子的数目。 $n \leq 8, k \leq n$

当为-1 -1时表示输入结束。

随后的n行描述了棋盘的形状：每行有n个字符，其中#表示棋盘区域，.表示空白区域（数据保证不出现多余的空白行或者空白列）。

输出

对于每一组数据，给出一行输出，输出摆放的方案数目C（数据保证 $C < 2^{31}$ ）。

样例输入

```

2 1
#.
.#
4 4
...#
..#.
.#..
#...
-1 -1

```

样例输出

```

2
1

```

编程题 # 2: A Knight's Journey

来源: POJ (<http://cxsjsxmooc.openjudge.cn/test2/J/>)(Coursera声明: 在POJ上完成的习题将不会计入Coursera的最后成绩。)

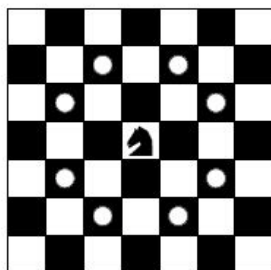
注意: 总时间限制: **1000ms** 内存限制: **65536kB**

描述

Background

The knight is getting bored of seeing the same black and white squares again and again and has decided to make a journey

around the world. Whenever a knight moves, it is two squares in one direction and one square perpendicular to this. The world of a knight is the chessboard he is living on. Our knight lives on a chessboard that has a smaller area than a regular 8 * 8 board, but it is still rectangular. Can you help this adventurous knight to make travel plans?



The eight possible moves of a knight

Problem

Find a path such that the knight visits every square once. The knight can start and end on any square of the board.

输入

The input begins with a positive integer n in the first line. The following lines contain n test cases. Each test case consists of a single line with two positive integers p and q , such that $1 \leq p * q \leq 26$. This represents a $p * q$ chessboard, where p describes how many different square numbers $1, \dots, p$ exist, q describes how many different square letters exist. These are the first q letters of the Latin alphabet: A, . . .

输出

The output for every scenario begins with a line containing "Scenario #i:", where i is the number of the scenario starting at 1. Then print a single line containing the lexicographically first path that visits all squares of the chessboard with knight moves followed by an empty line. The path should be given on a single line by concatenating the names of the visited squares. Each square name consists of a capital letter followed by a number.

If no such path exist, you should output impossible on a single line.

样例输入

```
3
1 1
2 3
4 3
```

样例输出

```
Scenario #1:
A1

Scenario #2:
impossible

Scenario #3:
A1B3C1A2B4C2A3B1C3A4B2C4
```

来源

TUD Programming Contest 2005, Darmstadt, Germany

How to submit

When you're ready to submit, you can upload files for each part of the assignment on the "My submission" tab.

