Problem E
The Cross

Input file: *testdata.in*
Time limit: 2 second

Problem Description

We have a square land consisting of $N \times N$ square unit cells. The owner of the land wants to build a house on the land. The owner wants the house to be as large as possible, but unfortunately there are two constraints. First, there are several cells in the land that cannot be used as construction purpose. Second, the house must be a "cross" shape. Please refer to Figure 1 for an illustration.

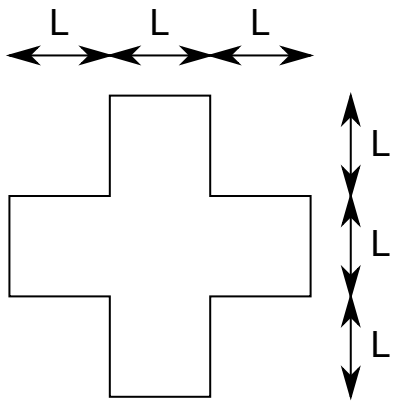

Figure 1: A cross shape house

Now given the land, please compute size of the largest house one can build, and the number of them one can build. For example, the largest house one can build in Figure 2 is 2, and there are only two places one can build

them. Note that the cells from two possible building sites can overlap, as in Figure 2 the blue site and the red cite do overlap.

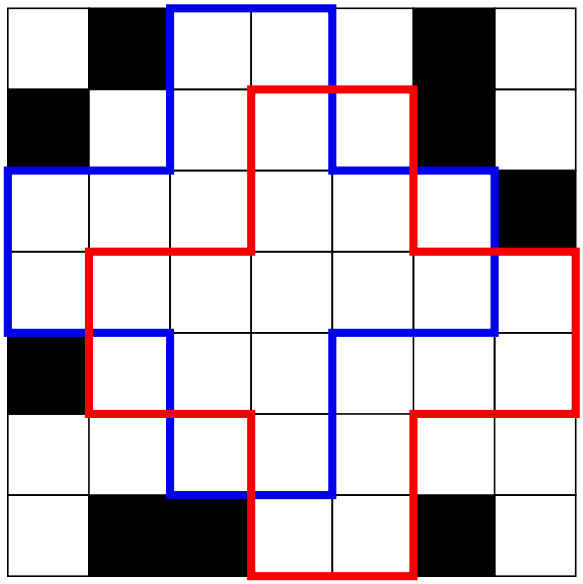

Figure 2: A land with two building sites of size 2

Technical Specification

1. $T \leq 100$
2. $N \leq 1000$

Input Format

The first line of the input contains an integer T indicating the number of test cases. For each test case, the first line contains an integers N indicating the size of the land. The following N lines represent the size of the land. Then, there are N lines of length N containing the status of cells for each row of the land. A 'o' indicates a cell good for construction, and an 'x' indicates a cell bad for construction.

Output Format

For each test case, output the size of the largest houses and the number of these houses in a single line, separated by a space. If there is no available placement event for the smallest, size-1 house, output "0 0" in a line.

Sample Input

```
1
7
oxoooxo
xooooxo
oooooox
ooooooo
xooooo
ooooooo
oxxooxo
```

Sample Output

```
2 2
```