Colorful Tribune

`tribune.c`, `tribune.cpp`, `tribune.c11`, `Tribune.java`, `tribune.py`

You are visiting your friends on a summer holiday sports camp. When you arrive there is a volleyball tournament going on. Various clubs from the villages in the camp neighborhood are taking part in the tournament. Each club is recognized by a color which is different from the colors of all other clubs and also the fans of each particular club are wearing t-shirts with the color of their club.

Amazingly, the tribune on which the fans are sitting is suited very well for the tournament: The number of seat rows and also the number of seat columns (perpendicular to the seat rows) is equal to the number of the clubs participating in the tournament. Moreover, quite unbelievably, the number of fans of each club is also equal to the number of clubs.

The last game of the tournament is to begin shortly. To make the display on the tribune more attractive, the fans decided to arrange themselves in such way that each fan will occupy exactly one seat and each row and each column will be occupied by fans of all clubs. After some scramble, they manage to achieve this configuration and the game is about to start. Suddenly, someone in the crowd around you points to the tribune and shouts "Hey, John is not wearing his club's color!". You do not know who John is and therefore you do not know where is he sitting or what color he should be wearing. Nevertheless, if John is the only person on the tribune who failed to be dressed in proper color then it is possible, just by careful observation of the tribune, to find him and determine the color of his club.

Input Specification

In this problem, we denote the colors of the clubs by capital letters "`A`", "`B`", ..., "`Z`". There are more test cases. Each case starts with a line containing one integer N ($3 \leq N \leq 26$) which is the number of teams taking part in the tournament. Next, there are N lines describing the colors worn by the fans on the tribune. Each line corresponds to one row of sets and it contains one string of length N. Each character in the string represents the color which the corresponding fan is wearing. The order of seats on the tribune is the same as the order of characters in the input.

Output Specification

For each test case, print a single line with two integers R, C, and a character V. The values of R and C specify the row and the column on the tribune where John is sitting and the letter V specifies the color of his club. Rows and columns are numbered $1, 2, \ldots, N$. The successive values on the output line should be separated by one space.

Sample Input

```
6
OEYCDK
EYOKCD
KDCEOY
CKHOYE
YOEDKC
DCKYEO
3
IWL
GIW
WLI
```

Output for Sample Input

```
4 3 D
2 1 L
```