Cavity Map

Problem Statement

You are given a square $n \times n$ map. Each cell of the map has a value in it denoting the depth of the appropriate area. We will call a cell of the map a cavity if and only if this cell is not on the border of the map and each cell adjacent to it has **strictly smaller depth**. Two cells are adjacent if they have a common side.

You need to find all the cavities on the map and depict them with character uppercase **X**.

Input Format

The first line contains an integer n $(1 \leq n \leq 100)$, denoting the size of the map. Each of the following n lines contains n positive digits without spaces. A digit (1-9) denotes the depth of the appropriate area.

Output Format

Output n lines, denoting the resulting map. Each cavity should be replaced with character `X`.

Sample Input

```
4
1112
1912
1892
1234
```

Sample Output

```
1112
1X12
18X2
1234
```