## **Cavity Map**

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You are given a square map of size n x n. Each cell of the map has a value denoting its depth. 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 (edge).

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

**Input Format**

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

**Constraints**

1 <= n <= 100

**Output Format**

Output 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

**Explanation**

The two cells with the depth of 9 fulfill all the conditions of the Cavity definition and have been replaced by X.