1256 – Word Puzzle

You are given a puzzle board where there are **n** words. Initially they are scattered. Your task is to find a order of the words such that the first character of **i**th word is same as the last character of the **(i-1)**th word **(1 < i ≤ n)**.

For example, you are given **{"abef", "pqrs", "fzzp", "zama", "pxrp"}**, the solution is

zama abcf fzzp pxrp pqrs

Input

Input starts with an integer **T (≤ 20)**, denoting the number of test cases.

Each case starts with a line containing two an integer **n (1 ≤ n ≤ 1000)**. Each of the next **n** lines contains a word whose length is between **1** and **20** (inclusive). You can assume that the words contain lowercase letters only.

Output

For each case, print the case number and **'Yes'** if such a ordering can be possible, or **'No'** if there is no such ordering. If the result is yes, then in the next line you should print the **n** words in a valid order. Print a single space between two consecutive words. There can be multiple solutions, any valid one will do.

Sample Input	Output for Sample Input
2 5 abcf pqrs fzzp zama pxrp 3 yes no notsolvable	Case 1: Yes zama abcf fzzp pxrp pqrs Case 2: No

Note

This is a special judge problem. Wrong output format may cause wrong answer.