# Longest Common Substring

Substrings are consecutive parts of a string. A problem usually solved with dynamic programming is to find the longest common substring problem is to find the longest string (or strings) that is a substring (or are substrings) of two strings.
Your task is to find the length of the longest common substring of K strings.

## Input

The first line contains an integer T, the number of test cases $(1 \leq T \leq 20)$ . Each test case, consists of one line containing an integer K $(1 \leq K \leq 10)$, and K lines, each containing a string (length of s <= 10^4), the strings only contain the character 'a' – 'z'.

## Output

Output T lines, one for each test case, containing the required sequence, with a blank space between consecutive terms. It is guaranteed that all terms in the sequence are integers.

## Example

**Input:**
2
2
aaabbb
bbaabb
3
icode
coder
contest

**Output:**
4
2