COCI '13 Contest 5 #1 Lozinka

Time limit: 1.0s **Memory limit:** 32M

Mirko is an evil plotting genius and has gotten hold of a list of all possible passwords for a certain user account. The first thing he noticed was all the passwords are of **odd length**. Mirko assumes that the correct password is the one which can be found in **both the original and reverse order** in the list. For example, if the word <u>tulipan</u> would be the correct password, the word <u>napilut</u> has to also appear in the list. Given that both words are correct passwords, Mirko will try to use both, one at a time.

Help Mirko discover what the correct password is and output its length and central character.

Input Specification

The first line of input contains the integer N ($1 \le N \le 100$), the number of possible passwords.

Each of the following N lines contains a single word, its length being an **odd number greater than 2 and less than 14**. All characters are lowercase letters of the English alphabet.

Output Specification

The first and only line of output must contain the length of the correct password and its central letter. **The solution will be unique.**

Sample Input 1

4 las god psala sal

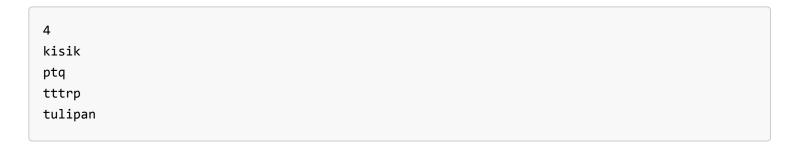
Sample Output 1

3 a

Explanation for Sample Output 1

The required pair of words is las and sal. Their length is 3 letters and the central character is a.

Sample Input 2



Sample Output 2

5 s

Explanation for Sample Output 2

The word kisik can be found in both the original and reverse order on the list (the word is a palindrome), so it is a valid correct password.