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 `tulipan` would be the correct password, the word `napilut` 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 $(1 \leq N \leq 100)$, 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

```
4
kisik
ptq
tttrp
tulipan
```

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.