

## Problem B

### Code Names

You are given  $W$ , a set of  $N$  words that are anagrams of each other. There are no duplicate letters in any word. A set of words  $S \subseteq W$  is called “swap-free” if there is no way to turn a word  $x \in S$  into another word  $y \in S$  by swapping only a single pair of (not necessarily adjacent) letters in  $x$ . Find the size of the largest swap-free set  $S$  chosen from the given set  $W$ .



#### Input

The first line of input contains an integer  $N$  ( $1 \leq N \leq 500$ ). Following that are  $N$  lines each with a single word. Every word contains only lowercase English letters and no duplicate letters. All  $N$  words are unique, have at least one letter, and every word is an anagram of every other word.

#### Output

Output the size of the largest swap-free set.

##### Sample Input 1

```
6
abc
acb
cab
cba
bac
bca
```

##### Sample Output 1

```
3
```

##### Sample Input 2

```
11
alerts
alters
artels
estral
laster
ratels
salter
slater
staler
stelar
talers
```

##### Sample Output 2

```
8
```



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**Sample Input 3**

```
6
ates
east
eats
etas
sate
teas
```

**Sample Output 3**

```
4
```