ICPC North America Regionals 2019

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TWO SIGMA

ICPC Southeast USA Regional Contest

Swap Free

Time limit: 1 second

A set of words is called *swap free* if there is no way to turn any word in the set into any other word in the set by swapping only a single pair of (not necessarily adjacent) letters.

You are given a set of n words that are all anagrams of each other. There are no duplicate letters in any word. Find the size of the largest *swap free* subset of the given set. Note that it is possible for the largest *swap free* subset of the given set to be the set itself.

Input

The first line of input contains a single integer n ($1 \leq n \leq 500$).

Each of the next n lines contains a single word w ($1 \leq |w| \leq 26$).

Every word contains only lower-case letters and no duplicate letters. All n words are unique, and every word is an anagram of every other word.

Output

Output a single integer, which is the size of the largest *swap free* subset.

Sample Input

Sample Output

Sample Input	Sample Output
6 abc acb cab cba bac bca	3
11 alerts alters artels estral laster ratels salter slater staler stelar talers	8
6 ates east eats etas sate teas	4