

Verbum Profundum

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On a regular day, Emre and Alp are walking around the Golet (one of the greatest beauties of ITU) as Emre talks about his super power to Alp: his word memory. He knows more words than average. But how he can do that? With a simple technique, he can memorize words much easier than usual: If the reverse of the first half (including median at words with odd length) of any word can be found as a suffix of any word in his memory, then he can remember a whole set of words much more easily.

Emre defines the number of words that hold this property as **Verbum Profundum**. After this conversation Alp gets curious about his own **Verbum Profundum** and he tries calculating it as he continues his morning walk. Can you help him find his **Verbum Profundum**?

Input Format

First line consists of one integer n which is the number of words Alp knows.

Next n lines consist of one string each, S , which consists of lowercase English letters.

Constraints

$$1 \leq n, \text{ (length of } s)$$
$$(\text{max length of } s) * n \leq 10^6$$

Output Format

Print one integer denoting the **Verbum Profundum** of Alp.

Sample Input

3
kmnbbb
bbcnmk
bbbxx

Copy

Sample Output

2

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Sample Explanation

kmnbbb and bbbxx satisfy the rule.

Submit Solution

✓ **Points:** 1

⌚ **Time limit:** 2.0s

Java: 4.0s

Java 8: 4.0s

Javascript v8: 6.0s

Mono C#: 4.0s

Python: 6.0s

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