

Problem C. Ctrl+C Ctrl+V

Input file: standard input
Output file: standard output
Time limit: 5 seconds
Memory limit: 1024 megabytes

- How are you doing with that autobiography?
- Er, Ania, what? Was there any homework for the Polish class?
- Come on, we were supposed to write an autobiography. Did you forget?
- I forgot. Can I copy it from you?
- You want to copy an autobiography!? Fine, but at least make some changes.

You are given a string s consisting of lowercase English letters. This is an autobiography written by Ania, which means it may contain the word **ania** as a contiguous substring, perhaps even multiple times. Determine the minimum number of characters that need to be changed in s so that it does not contain the word **ania** as a contiguous substring.

Input

The first line of input contains the number of test cases z ($1 \leq z \leq 10\,000$). The descriptions of the test cases follow.

The first and only line of each test case contains the string s - Ania's autobiography. The string's length is l ($1 \leq l \leq 10^6$). It solely consists of lowercase letters of the English alphabet.

The total length of the strings in all test cases does not exceed 5 000 000.

Output

For each test case, in a separate line, write one integer, representing the minimum number of changes that have to be made to the autobiography so that it does not contain a substring **ania**.

Example

standard input	standard output
3	1
aniasieurodzilaapotemnic sieniedzialo	2
nicciekawegouanianiagniesz kiania licji	0
jeszczekrotsza autobiografiaani	