Day 73 coding Statement :

A string is called *boring* if all the characters of the string are **same**.

You are given a string *S* of length *N*, consisting of lowercase english alphabets. Find the length of the longest *boring* substring of *S* which occurs **more than once**.

Note that if there is no *boring* substring which occurs more than once in *S*, the answer will be 00.

A substring is obtained by deleting some (possibly zero) elements from the beginning of the string and some (possibly zero) elements from the end of the string.

Input Format

- The first line of input will contain a single integer *T*, denoting the number of test cases.
- Each test case consists of two lines of input.
    - The first line of each test case contains an integer *N*, denoting the length of string *S*.
    - The next contains string *S*.

Output Format

For each test case, output on a new line, the length of the longest *boring* substring of *S* which occurs **more than once**.

Sample Input

4

3

aaa

3

abc

5

bcaca

6

caabaa

Sample Output

2

0

1

2