

3943 Liking's Letter

Just before the Nanjing Regional Contest begins, the ACM Team gets a letter from Liking at Normal University of Absolute Angel (NUAA). In the letter Liking says that she misses all his friends at the NUAA ACM Team and sends her best wishes to the Contest Committee and the contestants from NUAA although she can not come here for some reasons. At the end of the letter, Liking leaves some strange strings that her friends do not understand. This problem comes to Ray, her best friend.

“I think I know the trick”, says Ray. “But we have to take part in the competition first, otherwise we will be late. However, I’m going to give you some clues and maybe you could think of it if you solve all the contest problems earlier. You just need to find the longest substring that appears more than once in the original string, then you may know what Liking means.”

Then the Regional Contest Begins ...

Input

There are multiple test cases in the input file. For each test case, there is an integer n (no more than 200,000) on the first line indicating the length of the string. The next line contains a string of lowercase letters which is the string Liking writes. There is a blank line between each test case. Proceed to the end of the Input file.

Output

For each test case, output exactly one integer on a line which is the length of the longest substring that appears more than once in the original string Liking writes. Please output as that in the Sample Output.

Sample Input

```
2
aa

10
likinglike
```

Sample Output

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Case 1: 1
Case 2: 3
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