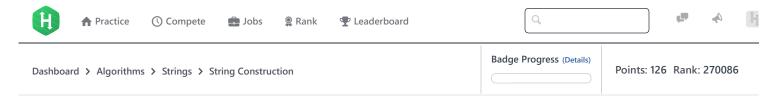
15/11/2017 HackerRank



String Construction



Problem	Submissions	Leaderboard	Discussions	Editorial 🔒

Amanda has a string, **s**, of **m** lowercase letters that she wants to copy into a new string, **p**. She can perform the following operations any number of times to construct string **p**:

- Append a character to the end of string p at a cost of 1 dollar.
- Choose any substring of p and append it to the end of p at no charge.

Given n strings (i.e., $s_0, s_1, \ldots, s_{n-1}$), find and print the minimum cost of copying each s_i to p_i on a new line.

Input Format

The first line contains a single integer, n, denoting the number of strings. Each line i of the n subsequent lines contains a single string, s_i .

Constraints

- $1 \le n \le 5$
- $1 \le m \le 10^5$

Subtasks

• $1 \le m \le 10^3$ for 45% of the maximum score.

Output Format

For each string s_i (where $0 \le i < n$), print the minimum cost of constructing string p_i on a new line.

Sample Input

2 abcd abab

Sample Output

4

Explanation

Query 0: We start with s = "abcd" and p = "".

- 1. Append character 'a' to p at a cost of 1 dollar, p = "a".
- 2. Append character 'b' to p at a cost of 1 dollar, p = "ab".
- 3. Append character 'c' to ${m p}$ at a cost of ${m 1}$ dollar, ${m p}=$ "abc".
- 4. Append character 'd' to p at a cost of 1 dollar, p = "abcd".

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Because the total cost of all operations is 1+1+1+1=4 dollars, we print 4 on a new line.

Query 1: We start with s = "abab" and p = "".

- 1. Append character 'a' to p at a cost of 1 dollar, p = "a".
- 2. Append character 'b' to p at a cost of 1 dollar, p = "ab".
- 3. Append substring "ab" to p at no cost, p = "abab".

Because the total cost of all operations is 1 + 1 = 2 dollars, we print 2 on a new line.

Note

A substring of a string S is another string S, that occurs "in" S (Wikipedia). For example, the substrings of the string "abc" are "a", "b", "c", "ab", "bc", and "abc".

f in Submissions:16324
Max Score:25
Difficulty: Easy
Rate This Challenge:
☆☆☆☆☆

Run Code

Submit Code

```
Current Buffer (saved locally, editable) & 49
                                                                                           Java 7
                                                                                                                             Ö
1 ▼ import java.io.*;
2 import java.util.*;
3
   import java.text.*;
    import java.math.*;
5
    import java.util.regex.*;
6
7 ▼ public class Solution {
8
9 ▼
        static int stringConstruction(String s) {
10
            // Complete this function
11
12
        public static void main(String[] args) {
13 🔻
14
            Scanner in = new Scanner(System.in);
15
            int q = in.nextInt();
            for(int a0 = 0; a0 < q; a0++){
16 ▼
                String s = in.next();
17
                int result = stringConstruction(s);
18
19
                System.out.println(result);
20
21
            in.close();
22
        }
23
    }
24
                                                                                                                    Line: 1 Col: 1
```

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1 Upload Code as File

Test against custom input