



HOME TOP CATALOG CONTESTS GYM PROBLEMSET GROUPS RATING EDU API CALENDAR HELP

PROBLEMS SUBMIT STATUS STANDINGS CUSTOM TEST

A. Cipher Shifer

time limit per test: 1 second memory limit per test: 256 megabytes input: standard input output: standard output

There is a string a (unknown to you), consisting of lowercase Latin letters, encrypted according to the following rule into string s:

- after each character of string *a*, an arbitrary (possibly zero) number of any lowercase Latin letters, different from the character itself, is added;
- after each such addition, the character that we supplemented is added.

You are given string s, and you need to output the initial string a. In other words, you need to decrypt string s.

Note that each string encrypted in this way is decrypted uniquely.

Input

The first line of the input contains a single integer t ($1 \le t \le 1000$) — the number of test cases.

The descriptions of the test cases follow.

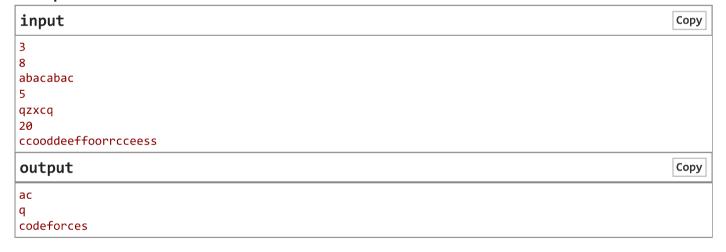
The first line of each test case contains a single integer n ($2 \le n \le 100$) — the length of the encrypted message.

The second line of each test case contains a string s of length n — the encrypted message obtained from some string a.

Output

For each test case, output the decrypted message a on a separate line.

Example



Note

In the first encrypted message, the letter a is encrypted as aba, and the letter c is encrypted as cabac.

In the second encrypted message, only one letter q is encrypted as qzxcq.

In the third encrypted message, zero characters are added to each letter.

Finished Practice

→ Virtual participation

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Start virtual contest

→ Clone Contest to Mashup	~			
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Clone Contest				

→ Submit?			
Language:	GNU G++17 7.3.0	~]	
Choose file:	Choose File No file chosen		
	Submit		

→ Problem tags	
implementation strings	two pointers
	No tag edit access

→ Contest materials		
Announcement Tutorial	×	
Tutorial		

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