

Problem A. Decodig String

Time limit 1000 ms

Mem limit 262144 kB

Polycarp has a string s consisting of lowercase Latin letters.

He encodes it using the following algorithm.

He goes through the letters of the string s from left to right and for each letter Polycarp considers its number in the alphabet:

- if the letter number is single-digit number (less than 10), then just writes it out;
- if the letter number is a two-digit number (greater than or equal to 10), then it writes it out and adds the number 0 after.

For example, if the string s is `code`, then Polycarp will encode this string as follows:

- 'c' — is the 3-rd letter of the alphabet. Consequently, Polycarp adds 3 to the code (the code becomes equal to 3);
- 'o' — is the 15-th letter of the alphabet. Consequently, Polycarp adds 15 to the code and also 0 (the code becomes 3150);
- 'd' — is the 4-th letter of the alphabet. Consequently, Polycarp adds 4 to the code (the code becomes 31504);
- 'e' — is the 5-th letter of the alphabet. Therefore, Polycarp adds 5 to the code (the code becomes 315045).

Thus, code of string `code` is 315045.

You are given a string t resulting from encoding the string s . Your task is to decode it (get the original string s by t).

Input

The first line of the input contains an integer q ($1 \leq q \leq 10^4$) — the number of test cases in the input.

The descriptions of the test cases follow.

The first line of description of each test case contains one integer n ($1 \leq n \leq 50$) — the length of the given code.

The second line of the description of each test case contains a string t of length n — the given code. It is guaranteed that there exists such a string of lowercase Latin letters, as a result of encoding which the string t is obtained.

Output

For each test case output the required string s — the string that gives string t as the result of encoding. It is guaranteed that such a string always exists. It can be shown that such a string is always unique.

Sample 1

Input	Output
9	code
6	aj
315045	abacaba
4	ll
1100	codeforces
7	aaaak
1213121	aaaaaj
6	aaaaa
120120	zf
18	
315045615018035190	
7	
1111110	
7	
1111100	
5	
11111	
4	
2606	

Note

The first test case is explained above.

In the second test case, the answer is `aj`. Indeed, the number of the letter `a` is equal to 1, so `1` will be appended to the code. The number of the letter `j` is 10, so `100` will be appended to the code. The resulting code is `1100`.

There are no zeros in the third test case, which means that the numbers of all letters are less than 10 and are encoded as one digit. The original string is `abacaba`.

In the fourth test case, the string s is equal to `ll`. The letter `l` has the number 12 and is encoded as `120`. So `ll` is indeed `120120`.