A. String Similarity

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

A binary string is a string where each character is either 0 or 1. Two binary strings a and b of equal length are *similar*, if they have the same character in some position (there exists an integer i such that $a_i = b_i$). For example:

- 10010 and 01111 are *similar* (they have the same character in position 4);
- 10010 and 11111 are *similar*;
- 111 and 111 are *similar*;
- 0110 and 1001 are not *similar*.

You are given an integer n and a binary string s consisting of $2n - 1$ characters. Let's denote $s[l..r]$ as the contiguous substring of s starting with l-th character and ending with r-th character (in other words, $s[l..r] = s_l s_{l+1} s_{l+2} \ldots s_r$).

You have to construct a binary string w of length n which is *similar* to **all of the following strings**: $s[1..n]$, $s[2..n+1]$, $s[3..n+2]$, ..., $s[n..2n-1]$.

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

The first line of each test case contains a single integer n ($1 \le n \le 50$).

The second line of each test case contains the binary string s of length $2n - 1$. Each character s_i is either 0 or 1.

Output
For each test case, print the corresponding binary string w of length n. If there are multiple such strings — print any of them. It can be shown that at least one string w meeting the constraints always exists.

Example

input	Copy
4 1 1 3 00000 4 1110000 2 101	

output	Copy
1 000 1010 00	

Note
The explanation of the sample case (equal characters in equal positions are bold):

The first test case:

- **1** is similar to $s[1..1] = \mathbf{1}$.

The second test case:

- **000** is similar to $s[1..3] = \mathbf{000}$;
- **000** is similar to $s[2..4] = \mathbf{000}$;
- **000** is similar to $s[3..5] = \mathbf{000}$.

The third test case:

- **1010** is similar to $s[1..4] = \mathbf{1110}$;
- **1010** is similar to $s[2..5] = \mathbf{1100}$;
- **1010** is similar to $s[3..6] = \mathbf{1000}$;
- **1010** is similar to $s[4..7] = \mathbf{0000}$.

The fourth test case:

- **00** is similar to $s[1..2] = \mathbf{10}$;
- **00** is similar to $s[2..3] = \mathbf{01}$.