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# Its Confidenial(G67)

Problem Submissions Leaderboard

Ayush is a spy. Its quite natural for him to go on a secret mission. Once You and Ayush were in the same secret mission, when Ayush felt an urgent need to communicate with Dr. Anand Gupta, who appointed both of you for this mission. The only way to communicate with him was by sending letters. As both of you were on a secret mission, Ayush will write the letter with some encrypted words which Dr. Anand Gupta was well aware of . As per the encryption is concerned, the encrypted word will start with the middle character of the string and will be formed henceforth with the middle characters of the left and right substrings (of the middle character of the word) and so on. Take a look at the explanation of the sample test case for better comprehension. As the letter was going to be quite long, Ayush wants your help to encrypt some critical words for him so that he can quickly finish the letter and sent it to Dr. Anand Gupta.

#### **Input Format**

- 1. The first line contains an integer T denoting the number of TEST CASES. Each TEST CASE consists of 2 lines. The first line contains an integer N denoting the length of the word that needs to be encrypted.
- 2. The second line contains the word that needs to be encrypted.

#### **Constraints**

- 1. 1 <= T <= 10
- 2. 1 <= Length of the string <= 10000

### **Output Format**

1. N lines where each line will contain the encrypted words

# Sample Input 0

2

3

abc

4

abcd

### Sample Output 0

bac

bacd

# Explanation 0

In Test Case 2: The word was "abcd"

Middle character of this word is 'b'

Left Substring of 'b' is "a"

Right Substring of 'b' is "cd"

Middle Character of Left Substring of 'b' is 'a'

Middle Character of Right Substring of 'b' is 'c'

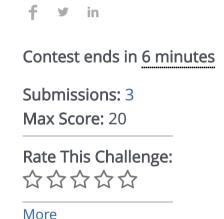
There are no other Left Substring for the 'c' in the right substring of 'b'

Right Substring of 'c' is "d"

Middle Character of Right Substring of 'c' is 'd'

There is no other Left or Right Substring of 'd', so we stop here and arrange the middle characters as we have obtained:

"bacd"



```
Current Buffer (saved locally, editable) $\mathcal{P} \infty$

1 \( \psi \) include <cmath>
2 \( \psi \) include <cstdio>
3 \( \psi \) include <iostream>
5 \( \psi \) include <algorithm>
6 \( \text{using namespace std;} \)
7 \( \text{void e(string s,int l,int r,string &ans)} \)
8 \( \psi \) {
```

```
if(l<=r)</pre>
 9
10 ₹
            int m=(l+r)/2;
11
            ans+=s[m];
12 ▼
13
            e(s,l,m-1,ans);
14
            e(s,m+1,r,ans);
15
16
        }
17
   }
   void solve()
18
19 ▼{
20
        int n;
21
        cin>>n;
22
        string s;
23
        cin>>s;
24
        string ans="";
25
        e(s,0,n-1,ans);
        cout<<ans<<"\n";</pre>
26
27 }
28 vint main() {
           ios_base::sync_with_stdio(0);
29
30
        cin.tie(0);
31
        int t;
32
        cin>>t;
        while(t-->0)
33
34
            solve();
35
        return 0;
36
37
```

Line: 1 Col: 1

<u>Upload Code as File</u> Test against custom input

Run Code

Submit Code

| Testcase 0 ✓               |   |  |
|----------------------------|---|--|
| _                          | lations, you passed the sample test case. bmit Code button to run your code against all the test cases. |  |
| Input (stdin)              | )   |  |
| 2<br>3<br>abc<br>4<br>abcd | t (stdout)  |  |
| bac<br>bacd                |   |  |
| Expected Out               | utput   |  |
| bac<br>bacd                |   |  |

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