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Contest Code: JUNE222D **Problem Code:** DNASTRAND


You are given the sequence of Nucleotides of one strand of DNA through a string S of length N . S contains the character A , T , C , and G only.

Chef knows that:

- A is complementary to T .
- T is complementary to A .
- C is complementary to G .
- G is complementary to C .

Using the string S , determine the sequence of the complementary strand of the DNA.

Input Format

- First line will contain T , number of test cases. Then the test cases follow.
- First line of each test case contains an integer N - denoting the length of string S .
- Second line contains N characters denoting the string S .

Output Format

For each test case, output the string containing N characters - sequence of nucleotides of the complementary strand.

Constraints

- $1 \leq T \leq 100$
- $1 \leq N \leq 100$
- S contains A, T, C, and G only

Sample Input 1

```
4
4
ATCG
4
GTCC
5
AAAAA
3
TAC
```

Sample Output 1

```
TAGC
CAGG
TTTTT
ATG
```

Explanation

Test case 1: Based on the rules, the complements of A, T, C, and G are T, A, G, and C respectively. Thus, the complementary string of the given string ATCG is TAGC.

Test case 2: Based on the rules, the complements of G, T, and C are C, A, and G respectively. Thus, the complementary string of the given string GTCC is CAGG.







Test case 3: Based on the rules, the complement of A is T. Thus, the complementary string of the given string AAAAA is TTTTT.

Test case 4: Based on the rules, the complements of T, A, and C are A, T, and G respectively. Thus, the complementary string of the given string TAC is ATG.


Status Correct Answer  Time 0.19 sec Solution 67527954



Sub-Task	Task #	Result (time)
1	1	AC (0.076674)
1	2	AC (0.188471)
1	3	AC (0.098710)
Subtask Score: 100.00%		Result - AC
Total Score = 100.00%		

JAVA   Code gets autosaved every second    

```
9 {
10     public static void main (String[] args) throws java.lang.Exception
11     {
12         Scanner sc = new Scanner(System.in);
13         int n = sc.nextInt();
14         for(int j = 0; j < n; j++){
15             int len = sc.nextInt();
16             String str = sc.next();
17             for(int i = 0; i < len; i++){
18                 switch(str.charAt(i)){
19                     case 'A' :
20                         System.out.print('T');
21                         break;
22                     case 'T' :
23                         System.out.print('A');
24                         break;
25                     case 'C' :
26                         System.out.print('G');
27                         break;
28                     case 'G' :
29                         System.out.print('C');
30                         break;
31                 }
32             }
33             System.out.println();
34         }
35     }
36 }
```

16:28 

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Custom Input

```
4 GTCC
5 AAAAA
3
TAC
```

Status Successfully executed Date 2022-06-24 15:49:46 Time 0.107278 sec Mem 39524 kB



Input

```
4
4
```

ATCG
4
GTCC
5

Output

TAGC
CAGG
TTTTT
ATG

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