

Problem G

The Video Learning Method

Time limit: 3 seconds

Memory limit: 1024 megabytes

Problem Description

Professor Chen has recently been wondering whether playing videos in class could help students stay more focused. To find out, he designed a multiple-choice quiz, hoping to analyze students' responses and better understand how videos affect their learning performance. However, although the quiz itself wasn't difficult, grading it turned out to be a troublesome task, because it uses rather strict scoring rules. If the option student writes isn't in the correct answer, then the student will lose 2 points per option. If the student didn't write the option that is in the correct answer, the student will lose 2 points per option, too. There's no point deduction limit, which means it's possible that the points the student gets is lower than 0.

Faced with this grading burden, Professor Chen realized he needed an automated scoring system. As a computer science professor, he naturally hoped to solve the problem through programming. When you heard about his situation, you immediately remembered a similar tool you once built at a computer camp, so you volunteered to help and take on part of the workload.

Input Format

Your program is to read from standard input. The input consists of T test cases. The number of test cases T is given in the first line of the input. Each test case contains three lines. The first line contains an integer n , which means the score of the problem, and also means the number of options. For example, if $n = 5$, then the options are A, B, C, D, and E; if $n = 7$, then the options are A, B, C, D, E, F, and G. The second line contains several characters, which means the student's answer. The third line also contains several characters, which means the correct answer.

Output Format

Your program is to write to standard output. Print exactly one line for each test case. The line is to contain the value of how much score the student gets. Please see the sample output.

Technical Specification

- $1 \leq T \leq 50$
- $2 \leq n \leq 26$
- The student's answer and the correct answer consist of all English letters from the first to the n -th in upper case.

Sample Input 1

3	
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Sample Output 1

	-3
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5
ACD
ABE
7
AF
A
3
AC
AC

5
3