

# Minimum Transformation Cost

## Problem Statement

Heraldo has to type lots of messages everyday. Each message consists of lower case letters only. One day due to unwillingness of working; he mistyped the original message  $U$  and ended up with wrong message  $X$ . As this mistake can get him fired so he is really worried now, but there is a way by which he can save himself. He had developed a software that can generate the *original message*, if any *anagram message* of the *original message* is provided as input to the software along with the *minimum transformation cost* required to transform the *wrong message* to the *anagram message*. He doesn't have much time to calculate the transformation cost, so he needs your help. Tell Herald, the *minimum transformation cost*.

*Minimum Transformation Cost* is total cost of operations needed to be performed to transform the wrong message to an anagram of the original message. The message can be transformed by performing series of following operations:

- *Delete*: Delete a character at any position in string. Operation cost is  $A$ .
- *Insert*: Insert a character at any position in string. Operation cost is  $B$ .
- *Replace*: Replace a character at any position by some other character. Operation cost is  $C$ .

## Input Format

First line of input is an integer  $T$ , total number of test cases. Each test case consists of three lines. First line contains a string  $X$ . Second line contains a string  $U$ . Third line contains three space separated integers  $A$ ,  $B$  and  $C$ , denoting the operation costs.

## Constraints

- $1 \leq T \leq 5 \times 10^3$
- $1 \leq |X|, |U| \leq 2 \times 10^4$ , where  $|S|$  denotes the length of string  $S$ .
- $0 \leq A, B, C \leq 10^3$
- $X$  and  $U$  consists of lower case letters  $[a - z]$  only.

## Output Format

Output the *minimum transformation cost* in single line for each test case.

## Sample Input

```
3
aaa
bbbb
0 0 3
abab
acac
3 3 2
baaaaa
aaaaab
2 3 5
```

## Sample Output

0  
4  
0

## Explanation

aaa  
bbbb  
0 0 3

As you can see, Delete and Insert operations both costs 0, so the minimum transformation cost is 0.

abab  
acac  
3 3 2

To transform "abab" to "acac", we can simply replace 'b' by 'c', so two Replace operations, so the minimum transformation cost is 4

baaaaa  
aaaaab  
2 3 5

Obviously no transformation is required, because wrong message is an anagram of original message itself, so the minimum transformation cost is 0.