

Problem Statement

Sid is obsessed about reading short stories. Being a CS student, he is doing some interesting frequency analysis with the books. He chooses strings $S1$ and $S2$ in such a way $|\text{len}(S1) - \text{len}(S2)| \leq 1$.

Your task is to help him find the minimum number of characters of the first string he needs to change to enable him to make it an [anagram](#) of the second string.

Input Format

The first line will contain an integer T representing the number of test cases. Each test case will contain a string having length $|S1| + |S2|$ which will be concatenation of both the strings described above in the problem. The given string will contain only characters from a to z .

Output Format

An integer corresponding to each test case is printed in a different line i.e., the number of changes required for each test case. Print -1 if it is not possible.

Constraints

$$1 \leq T \leq 100$$

$$1 \leq |S1| + |S2| \leq 10^4$$

Sample Input

```
5
aaabbb
ab
abc
mnop
xyyx
```

Sample Output

```
3
1
-1
2
0
```

Explanation

Test Case #00: We have to replace at least three characters from any of the string to make both of strings anagram. Here, $a = "aaa"$ and $b = "bbb"$. One possible solution is to replace all character 'a' in string a with character 'b'.

Test Case #01: Either replace 'a' with 'b', which will generate "bb". Or replace 'b' with 'a' to generate "aa". Both of the solution are valid.

Test Case #02: It is not possible for two strings of unequal length to be anagram for each other.

Test Case #03: We have to replace both the characters of any string to make it anagram of other one.