

# Anagram

Sid is obsessed with 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 that  $|\text{len}(S1) - \text{len}(S2)| \leq 1$ .

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.

*Note:* A word  $x$  is an anagram of another word  $y$  if we can produce  $y$  by rearranging the letters of  $x$ .

## 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  $\text{len}(S1) + \text{len}(S2)$ , 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

- $1 \leq T \leq 100$
- $1 \leq \text{len}(S1) + \text{len}(S2) \leq 10^4$

## Sample Input

```
6
aaabbb
ab
abc
mnop
xyyx
xaxbbbx
```

## Sample Output

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

## Explanation

*Test Case #01:* We have to replace all three characters from the first string to make both of strings anagram. Here,  $S1 = "aaa"$  and  $S2 = "bbb"$ . So the solution is to replace all character 'a' in string  $a$  with character 'b'.

*Test Case #02:* You have to replace 'a' with 'b', which will generate "bb".

*Test Case #03:* It is not possible for two strings of unequal length to be anagram for each other.

*Test Case #04:* We have to replace both the characters of first string ("mn") to make it anagram of other one.

*Test Case #05:* \$S1\$ and \$S2\$ are already anagram to each other.

*Test Case #06:* Here  $S1 = "xaxb"$  and  $S2 = "bbxx"$ . He had to replace 'a' from  $S1$  with 'b' so that  $S1 = "xbxb"$  and we can rearrange its letter to "bbxx" in order to get  $S2$ .