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Test Name:	**Mock Test**
Taken On:	26 May 2022 16:40:59 IST
Time Taken:	20 min 48 sec/ 30 min
Invited by:	Ankush
Invited on:	26 May 2022 16:39:58 IST
Skills Score:	
Tags Score:	Algorithms 70/70 Core CS 70/70 Easy 70/70 Strings 70/70 problem-solving 70/70

100%

70/70

scored in **Mock Test** in 20 min 48 sec on 26 May 2022 16:40:59 IST

Recruiter/Team Comments:

No Comments.

	Question Description	Time Taken	Score	Status
Q1	Anagram > **Coding**	20 min 40 sec	70/ 70	✓

QUESTION 1

Correct Answer

Score 70

Anagram > Coding

Strings | Algorithms | Easy | problem-solving | Core CS

QUESTION DESCRIPTION

Two words are *anagrams* of one another if their letters can be rearranged to form the other word.

Given a string, split it into two contiguous substrings of equal length. Determine the minimum number of characters to change to make the two substrings into anagrams of one another.

Example

$s = \text{abccde}$

Break s into two parts: 'abc' and 'cde'. Note that all letters have been used, the substrings are contiguous and their lengths are equal. Now you can change 'a' and 'b' in the first substring to 'd' and 'e' to have 'dec' and 'cde' which are anagrams. Two changes were necessary.

Function Description

Complete the *anagram* function in the editor below.

anagram has the following parameter(s):

- *string s:* a string

Returns

- *int:* the minimum number of characters to change or -1.

Input Format

The first line will contain an integer, q, the number of test cases.
Each test case will contain a string s.

Constraints

- $1 \leq q \leq 100$
- $1 \leq |s| \leq 10^4$
- s consists only of characters in the range ascii[a-z].

Sample Input

```
6
aaabbb
ab
abc
mnop
xyyx
xaxbbbxx
```

Sample Output

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

Explanation

Test Case #01: We split s into two strings $S1$='aaa' and $S2$='bbb'. We have to replace all three characters from the first string with 'b' to make the strings anagrams.

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 anagrams of one another.

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

Test Case #05: $S1$ and $S2$ are already anagrams of one another.

Test Case #06: Here *S1* = *"xaxb"* and *S2* = *"bbxx"*. You must replace 'a' from *S1* with 'b' so that *S1* = *"xbxb"*.

CANDIDATE ANSWER

Language used: **Java 8**

```
class Result {

    /*
     * Complete the 'anagram' function below.
     *
     * The function is expected to return an INTEGER.
     * The function accepts STRING s as parameter.
     */
```

```java
    public static int anagram(String s) {
        if(s.length() % 2 == 1){
            return -1;
        }

        Map<String,Queue<String>> count = new HashMap<>();

        int mid = s.length() / 2;
        String s1 = s.substring(0,mid);
        String s2 = s.substring(mid);

        for(String letter : s2.split("")){
            if(!count.containsKey(letter)){
                count.put(letter, new ArrayDeque<>());
            }
            count.get(letter).add(letter);
        }

        for(String letter : s1.split("")){
            if(!count.containsKey(letter)){
                continue;
            }
            count.get(letter).poll();
        }

        int result = 0;
        for(String letter : count.keySet()){
            if(count.get(letter).size() > 0){
                result += count.get(letter).size();
            }
        }

        return result;
    }

}
```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Hidden case	Success	5	0.1865 sec	29.8 KB
Testcase 2	Easy	Hidden case	Success	5	0.1459 sec	29.3 KB
Testcase 3	Easy	Hidden case	Success	5	0.1178 sec	29.4 KB
Testcase 4	Easy	Hidden case	Success	5	0.1492 sec	29.9 KB
Testcase 5	Easy	Hidden case	Success	5	0.1771 sec	30.3 KB
Testcase 6	Easy	Hidden case	Success	5	0.6516 sec	59.4 KB
Testcase 7	Easy	Hidden case	Success	5	0.3701 sec	43 KB
Testcase 8	Easy	Hidden case	Success	5	0.7074 sec	61.7 KB
Testcase 9	Easy	Hidden case	Success	5	0.2517 sec	42.4 KB
Testcase 10	Easy	Hidden case	Success	5	0.612 sec	54.8 KB
Testcase 11	Easy	Hidden case	Success	5	0.4355 sec	42.7 KB
Testcase 12	Easy	Hidden case	Success	5	0.4136 sec	54.8 KB
Testcase 13	Easy	Hidden case	Success	5	0.5624 sec	56.4 KB
Testcase 14	Easy	Hidden case	Success	5	0.7363 sec	60.1 KB

Testcase 15	Easy	Sample case	Success	0	0.1258 sec	29.6 KB
Testcase 16	Easy	Sample case	Success	0	0.1551 sec	29.8 KB

No Comments

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