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Test Name:	**Mock Test**
Taken On:	17 Aug 2025 16:33:02 IST
Time Taken:	76 min 1 sec/ 90 min
Invited by:	Ankush
Invited on:	10 Aug 2025 17:03:10 IST
Skills Score:	
Tags Score:	Algorithms 105/280 Core CS 105/280 Data Structures 60/105 Easy 105/280 LCM 60/105 Least Common Multiple 60/105 Math 60/105 Problem Solving 40/105 Strings 45/175 gcd 60/105 greatest common divisor 60/105 problem-solving 105/280 sets 60/105

37.5%

105/280

scored in **Mock Test** in 76 min 1 sec on 17 Aug 2025 16:33:02 IST

Recruiter/Team Comments:

No Comments.

	Question Description	Time Taken	Score	Status
Q1	Palindrome Index > Coding	26 min 28 sec	40/ 105	✓
Q2	Between Two Sets > Coding	17 min 26 sec	60/ 105	✓
Q3	Anagram > Coding	30 min 40 sec	5/ 70	✓

QUESTION 1

Correct Answer

Score 40

Palindrome Index > Coding

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

QUESTION DESCRIPTION

Given a string of lowercase letters in the range ascii[a-z], determine the index of a character that can be removed to make the string a palindrome. There may be more than one solution, but any will do. If the word is already a palindrome or there is no solution, return *-1*. Otherwise, return the index of a character to remove.

Example

$s = \text{"bcbc"}$

Either remove *'b'* at index 0 or *'c'* at index 3.

Function Description

Complete the *palindromeIndex* function in the editor below.

palindromeIndex has the following parameter(s):

- *string s:* a string to analyze

Returns

- *int:* the index of the character to remove or -1

Input Format

The first line contains an integer q, the number of queries.
Each of the next q lines contains a query string s.

Constraints

- $1 \leq q \leq 20$
- $1 \leq \text{length of } s \leq 10^5 + 5$
- All characters are in the range ascii[a-z].

Sample Input

```
STDIN   Function
-----   --------
3       q = 3
aaab    s = 'aaab' (first query)
baa     s = 'baa'  (second query)
aaa     s = 'aaa'  (third query)
```

Sample Output

```
3
0
-1
```

Explanation

Query 1: "aaab"
Removing *'b'* at index 3 results in a palindrome, so return 3.

Query 2: "baa"
Removing *'b'* at index 0 results in a palindrome, so return 0.

Query 3: "aaa"
This string is already a palindrome, so return -1. Removing any one of the characters would result in a palindrome, but this test comes first.

Note: The custom checker logic for this challenge is available here.

CANDIDATE ANSWER

Language used: **C**

```
1
```

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

bool isPalindrome(char *s, int l, int r)
{
    while(l<r){
        if(s[l] != s[r]){
            return false;
        }
        l++;
        r--;
    }
    return true;

}
int palindromeIndex(char* s) {
    int n= strlen(s);
    int l=0, r=n-1;
    while(l<r){
        if(s[l] != s[r]){
            if(isPalindrome(s,l+1,r))
            {
                return 1;
            }
            if(isPalindrome(s, l, r-1)){
                return r;
            }
        }
        l++;
        r--;
    }
    return -1;

}

```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Sample case	Wrong Answer	0	0.0074 sec	7.38 KB
Testcase 2	Medium	Hidden case	Wrong Answer	0	0.0094 sec	7 KB
Testcase 3	Medium	Hidden case	Wrong Answer	0	0.0068 sec	7.13 KB
Testcase 4	Medium	Hidden case	Wrong Answer	0	0.007 sec	7.13 KB
Testcase 5	Medium	Hidden case	Wrong Answer	0	0.0087 sec	7.38 KB
Testcase 6	Medium	Hidden case	Wrong Answer	0	0.0077 sec	7.25 KB
Testcase 7	Medium	Hidden case	Wrong Answer	0	0.0076 sec	7.38 KB
Testcase 8	Medium	Hidden case	Wrong Answer	0	0.0085 sec	7.75 KB
Testcase 9	Hard	Hidden case	Wrong Answer	0	0.007 sec	7.25 KB
Testcase 10	Hard	Hidden case	Wrong Answer	0	0.008 sec	7.13 KB
Testcase 11	Hard	Hidden case	Wrong Answer	0	0.0069 sec	7.63 KB
Testcase 12	Hard	Hidden case	Success	10	0.0077 sec	7.13 KB
Testcase 13	Hard	Hidden case	Success	10	0.0084 sec	7.25 KB

Testcase 14	Hard	Hidden case	Success	10	0.0071 sec	7.13 KB
Testcase 15	Hard	Hidden case	Success	10	0.0108 sec	7.25 KB

No Comments

QUESTION 2

Correct Answer

Score 60

Between Two Sets › Coding

Math | Algorithms | Easy | gcd | Data Structures | LCM | sets | problem-solving | Core CS | greatest common divisor | Least Common Multiple

QUESTION DESCRIPTION

There will be two arrays of integers. Determine all integers that satisfy the following two conditions:

1. The elements of the first array are all factors of the integer being considered
2. The integer being considered is a factor of all elements of the second array

These numbers are referred to as being *between* the two arrays. Determine how many such numbers exist.

Example

$a = [2, 6]$
$b = [24, 36]$

There are two numbers between the arrays: 6 and 12.
$6\%2 = 0$, $6\%6 = 0$, $24\%6 = 0$ and $36\%6 = 0$ for the first value.
$12\%2 = 0$, $12\%6 = 0$ and $24\%12 = 0$, $36\%12 = 0$ for the second value. Return 2.

Function Description

Complete the *getTotalX* function in the editor below. It should return the number of integers that are betwen the sets.

getTotalX has the following parameter(s):

- *int a[n]*: an array of integers
- *int b[m]*: an array of integers

Returns

- *int:* the number of integers that are between the sets

Input Format

The first line contains two space-separated integers, n and m, the number of elements in arrays a and b.
The second line contains n distinct space-separated integers $a[i]$ where $0 \leq i < n$.
The third line contains m distinct space-separated integers $b[j]$ where $0 \leq j < m$.

Constraints

- $1 \leq n, m \leq 10$
- $1 \leq a[i] \leq 100$
- $1 \leq b[j] \leq 100$

Sample Input

```
2 3
2 4
16 32 96
```

Sample Output

```
3
```

Explanation

2 and 4 divide evenly into 4, 8, 12 and 16.
4, 8 and 16 divide evenly into 16, 32, 96.

4, 8 and 16 are the only three numbers for which each element of a is a factor and each is a factor of all elements of b.

CANDIDATE ANSWER

Language used: **C**

```c

/*
 * Complete the 'getTotalX' function below.
 *
 * The function is expected to return an INTEGER.
 * The function accepts following parameters:
 *  1. INTEGER_ARRAY a
 *  2. INTEGER_ARRAY b
 */
int gcd(int a, int b)
{
    while(b!=0){
        int temp =b;
        b=a%b;
        a =temp;
    }
    return a;
}

 int lcm(int a, int b){
    return(a*b)/gcd(a,b);
 }
int getTotalX(int a_count, int* a, int b_count, int* b) {
    int l=a[0];
    for( int i=1; i<a_count;i++){
        l=lcm(l,a[i]);
    }
    int g=b[0];
    for(int i=1; i<b_count; i++){
        g=gcd(g,b[i]);
    }
    int count =0;
    for(int x=1; x<=g; x+=l){
        if(g%x==0){
            count++;
        }
    }
    return count;

}

```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Sample case	Wrong Answer	0	0.0066 sec	7 KB
Testcase 2	Easy	Hidden case	Wrong Answer	0	0.0081 sec	7.13 KB
Testcase 3	Easy	Hidden case	Success	15	0.0069 sec	7.38 KB
Testcase 4	Easy	Hidden case	Wrong Answer	0	0.0077 sec	7.38 KB
Testcase 5	Easy	Hidden case	Success	15	0.0075 sec	7.13 KB
Testcase 6	Easy	Hidden case	Wrong Answer	0	0.0073 sec	7.13 KB

Testcase 7	Easy	Hidden case	Success	15	0.0084 sec	7.38 KB
Testcase 8	Easy	Hidden case	Success	15	0.0076 sec	7.13 KB
Testcase 9	Easy	Sample case	Wrong Answer	0	0.0071 sec	7.13 KB

No Comments

QUESTION 3

Correct Answer

Score 5

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: **C**

```c

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

int anagram(char* s) {
    int n=strlen(s);
    if(n%2 !=0)
    {
        return -1;
    }
    int mid =n/2;
    int freq[26]={0};

    for(int i=mid; i<n; i++){
        freq[s[i]-'a']++;
    }

    for(int i=mid; i<n; i++){
        freq[s[i]-'a']--;
    }

    int changes =0;
    for(int i=0; i<26; i++){
        if(freq[i]>0){
            changes += freq[i];
        }
    }
    return changes;

}

```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Hidden case	Wrong Answer	0	0.0072 sec	7 KB
Testcase 2	Easy	Hidden case	Success	5	0.0089 sec	7.25 KB

Testcase 3	Easy	Hidden case	Wrong Answer	0	0.0096 sec	7.25 KB
Testcase 4	Easy	Hidden case	Wrong Answer	0	0.0073 sec	7.13 KB
Testcase 5	Easy	Hidden case	Wrong Answer	0	0.0071 sec	7 KB
Testcase 6	Easy	Hidden case	Wrong Answer	0	0.017 sec	8.13 KB
Testcase 7	Easy	Hidden case	Wrong Answer	0	0.0115 sec	7.25 KB
Testcase 8	Easy	Hidden case	Wrong Answer	0	0.0181 sec	8.13 KB
Testcase 9	Easy	Hidden case	Wrong Answer	0	0.0091 sec	7.63 KB
Testcase 10	Easy	Hidden case	Wrong Answer	0	0.0094 sec	8 KB
Testcase 11	Easy	Hidden case	Wrong Answer	0	0.0086 sec	7.5 KB
Testcase 12	Easy	Hidden case	Wrong Answer	0	0.0512 sec	7.88 KB
Testcase 13	Easy	Hidden case	Wrong Answer	0	0.0165 sec	8.13 KB
Testcase 14	Easy	Hidden case	Wrong Answer	0	0.0192 sec	8.13 KB
Testcase 15	Easy	Sample case	Wrong Answer	0	0.0069 sec	7 KB
Testcase 16	Easy	Sample case	Wrong Answer	0	0.0074 sec	7 KB

No Comments

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