

# Sherlock and Anagrams ☆

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Two strings are **anagrams** of each other if the letters of one string can be rearranged to form the other string. Given a string, find the number of pairs of substrings of the string that are anagrams of each other.

For example  $s = mom$ , the list of all anagrammatic pairs is  $[m, m]$ ,  $[mo, om]$  at positions  $[[0], [2]]$ ,  $[[0, 1], [1, 2]]$  respectively.

Function Description

Complete the function `sherlockAndAnagrams` in the editor below. It must return an integer that represents the number of anagrammatic pairs of substrings in  $s$ .

`sherlockAndAnagrams` has the following parameter(s):

- $s$ : a string .

Input Format

The first line contains an integer  $q$ , the number of queries.

Each of the next  $q$  lines contains a string  $s$  to analyze.

Constraints

- $1 \leq q \leq 10$
- $2 \leq |s| \leq 100$
- String  $s$  contains only lowercase letters  $\in \text{ascii}[a-z]$ .

Output Format

For each query, return the number of unordered anagrammatic pairs.

Sample Input 0

```
2
abba
abcd
```

Sample Output 0

```
4
0
```

Explanation 0

The list of all anagrammatic pairs is  $[a, a]$ ,  $[ab, ba]$ ,  $[b, b]$  and  $[abb, bba]$  at positions  $[[0], [3]]$ ,  $[[0, 1], [2, 3]]$ ,  $[[1], [2]]$  and  $[[0, 1, 2], [1, 2, 3]]$  respectively.

No anagrammatic pairs exist in the second query as no character repeats.

Sample Input 1

```
2
ifailuhkqq
kkkk
```

Sample Output 1

```
3
10
```

Explanation 1

For the first query, we have anagram pairs  $[i, i]$ ,  $[q, q]$  and  $[ifa, fai]$  at positions  $[[0], [3]]$ ,  $[[8], [9]]$  and  $[[0, 1, 2], [1, 2, 3]]$  respectively.

For the second query:

There are 6 anagrams of the form  $[k, k]$  at positions  $[[0], [1], [[0], [2]], [[0], [3]], [[1], [2]], [[1], [3]]$  and  $[[2], [3]]$ .

There are 3 anagrams of the form  $[kk, kk]$  at positions  $[[0, 1], [1, 2]], [[0, 1], [2, 3]]$  and  $[[1, 2], [2, 3]]$ .

There is 1 anagram of the form  $[kkk, kkk]$  at position  $[[0, 1, 2], [1, 2, 3]]$ .

Sample Input 2

```
1
cdcd
```

Sample Output 2

```
5
```

Explanation 2

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Difficulty **Medium**

Max Score 50

Submitted By 87884

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English




There are two anagrammatic pairs of length 1:  $[c, c]$  and  $[d, d]$ .

There are three anagrammatic pairs of length 2:  $[cd, dc]$ ,  $[cd, cd]$ ,  $[dc, cd]$  at positions  $[[0, 1], [1, 2]]$ ,  $[[0, 1], [2, 3]]$ ,  $[[1, 2], [2, 3]]$  respectively.

Change Theme JavaScript (Node.js)   

```
1 'use strict';
2
3 const fs = require('fs');
4
5 process.stdin.resume();
6 process.stdin.setEncoding('utf-8');
7
8 let inputString = '';
9 let currentLine = 0;
10
11 process.stdin.on('data', inputStdin => {
12     inputString += inputStdin;
13 });
14
15 process.stdin.on('end', _ => {
16     inputString = inputString.replace(/\s+$/, '')
17     .split('\n')
18     .map(str => str.replace(/\s+$/, ''));
19
20     main();
21 });
22
23 function readLine() {
24     return inputString[currentLine++];
25 }
26
```

Line: 70 Col: 1

 Upload Code as File ☐ Test against custom input

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