Sherlock and Anagrams

HackerRank

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.

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.

sherlockAndAnagrams has the following parameter(s):

• string s: a string

Returns

• int: the number of unordered anagrammatic pairs of substrings in s

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

 $1 \le q \le 10$ $2 \le \text{ length of } s \le 100$ s contains only lowercase letters in the range ascii[a-z].

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.

1/2

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

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.