Sherlock and Anagrams



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 which 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 representing 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 \le q \le 102 \le |s| \le 100
```

String s contains only lowercase letters \in 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

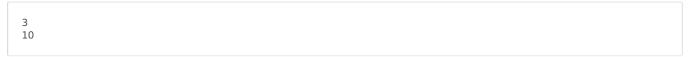
The list of all anagrammatic pairs is [a,a], [ab,ba], [b,b] and [abb,bba] at positions [[0],[3]], [[0,1],[2,3]], [[1],[2]] and [[0,1,2],[1,2,3]] respectively.

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

Sample Input 1

```
2
ifailuhkqq
kkkk
```

Sample Output 1



Explanation 1

For the first query, we have an agram 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.