# Sherlock and Anagrams

**hackerrank.com**/challenges/sherlock-and-anagrams/problem

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**

$1 \leq q \leq 10$
$2 \leq$ length of $s \leq 100$
$s$ 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.

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.