

ALIENS AND COWS

Aliens have designed a new ranking system for N cows in planet Mars. Cows near the bottom of the rankings list have become jealous of the top rankers, while the top rankers started looking down on their less successful cows. The ranking system has 2 rules

1. Two cows are friends if their ranks are close enough, more precisely, if they differ by at most K .

For example, if $K = 1$, then only neighbouring cows on the rankings list are friends.

2. Two cows are good friends if they are friends and their names have the same length

Find the number of pairs of cows which are good friends in Mars.

Input:

First line contains number of testcases T ($1 \leq T \leq 5$). Followed by description of each testcase.

Each Testcase contains two positive integers, N ($3 \leq N \leq 300\,000$) and K ($1 \leq K \leq N$), from the problem statement.

Each of the following N lines contains a single cow's name. The names are given in the order they appear on the rankings list. They consist of between 2 and 20 (inclusive) uppercase English letters

Output:

Print the required number of pairs of good friends.

Sample Input:

```
2
4 2
XVA
IWO
TNJ
TDM
6 3
CYNTHIA
LLOYD
STEVIE
KEVIN
MALCOLM
DABNEY
```

Sample Output:

```
5
2
```