# Repetitions, conflicts and coincidences in a list of peopleX41925_en

Given a list of people described by an identifier and a name, you must count three things:

- Repetitions: number of pairs of persons with the same identifier and the same name.
- Conflicts: number of pairs of persons with the same identifier and different name.
- Coincidences: number of pairs of persons with a different identifier but the same name.

## Input

The input consists of several cases. Each case starts with a positive natural $n$ in a separate line, which is the number of people. After that come $n$ lines, each one with a natural number and a string, which are the identifier and name of a person. At the end there is a blank line.

## Output

For each case, the output has three natural numbers in one line, the number of repetitions, conflicts and coincidences in the list of people at the input.

## Sample input

```
3
1 joel
1 joel
0 joel

11
0 anabel
4 maria
1 anabel
1 nestor
3 maria
4 anabel
2 anabel
4 maria
4 nestor
3 anabel
2 david

18
0 rosabel
2 robert
2 joan
1 silvia
5 rosabel
5 rosabel
3 silvia
1 silvia
5 silvia
5 silvia

1 silvia
4 joel
3 david
5 rosabel
5 joel
2 rosabel
3 joan
5 silvia

5
0 silvia
0 silvia
0 silvia
0 silvia
0 silvia

7
2 desi
4 desi
5 desi
6 desi
0 desi
1 desi
6 desi

3
0 anabel
0 sandra
0 silvia

2
```

```
0 nestor
1 nestor

13
0 ferran
2 aleix
0 maxtor
0 ferran
1 cesar
1 maxtor
2 maxtor
0 cesar
1 maxtor
2 maxtor
2 cesar
2 aleix
0 aleix

10
1 maria
0 maria
4 aleix
4 aleix
1 maria
0 maria
2 aleix
4 aleix
0 aleix
2 maria

14
0 nestor
1 nestor
2 nestor
2 nestor
0 silvia
2 marisa
1 marisa
0 silvia
2 marisa
0 nestor
2 marisa
1 silvia
0 nestor
1 nestor

16
2 robert
0 robert
2 laura
0 joan
1 joan
1 robert
1 laura
2 joan
0 joan
1 robert
2 joan
0 robert
1 robert
2 robert
```

```
0 joan
2 joan

7
1 rosabel
0 rosabel
0 rosabel
2 rosabel
0 rosabel
2 rosabel
1 rosabel

7
6 nuria
4 nuria
4 nuria
5 nuria
1 nuria
5 nuria
2 nuria

15
0 nestor
0 angels
2 david
2 angels
2 nestor
1 david
1 david
0 david
2 angels
0 angels
2 angels
1 david
1 nestor
0 robert
2 robert

19
16 sandra
16 robert
7 joel
10 joel
0 robert
4 robert
13 robert
11 marisa
2 robert
11 robert
7 marisa
7 marisa
13 joel
12 marisa
1 joel
13 marisa
9 sandra
12 marisa
10 marisa

6
0 david
```

```
0 david
0 david
0 david
0 david
0 david

4
0 oscar
0 oscar
0 oscar
0 oscar

16
5 nestor
3 oscar
5 robert
5 robert
5 robert
3 cesar
0 oscar
5 angels
4 robert
6 robert
7 oscar
2 angels
4 oscar
5 cesar
2 angels
0 cesar

11
2 robert
1 ferran
3 robert
3 robert
1 ferran
0 robert
0 robert
2 robert
1 ferran
2 robert
1 robert

11
4 arisa
5 arisa
3 oscar
7 oscar
7 arisa
1 arisa
6 oscar
3 arisa
4 oscar
9 oscar
0 oscar
```

## Sample output

```
1 0 2
1 8 13
9 21 24
10 0 0
1 0 20
0 3 0
0 0 1
4 19 13
5 3 15
9 17 21
11 24 32
5 0 16
2 0 19
7 24 17
2 8 41
15 0 0
6 0 0
4 15 18
8 3 23
0 3 25
```

## Observation

Evaluation over 10 points:

- Slow solution: 5 points.
- Fast solution: 10 points.

It is understood that a fast solution is correct, with $n \log(n)$ cost and passes all test cases, both public and private. A slow solution is defined as one that is not fast, but it is correct and passes the public test cases.

### Problem information

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