
F003B. Twin numbers

P66047_en

Two natural numbers are *twins* if the number of appearances of each digit is the same in each of them. For instance, 25 and 52 are twins, as well as 1225 and 5212. Neither 7899 and 7889, nor 102 and 12 are twins.

Your task is to write a program that says which numbers do not have any twin in a given set.

Your program must include and use the function

```
bool are_twins(int a, int b);
```

That indicates if two different natural numbers $|a|$ and $|b|$ are twins.

Input

The input is a sequence of cases. Each case starts with a word that identifies it, followed by a natural number n , followed by n natural numbers strictly positive, all different.

Output

For each input case, print a line starting with the case id, followed by the list of the numbers which are not twins of any other number of the same case, and ending with the counter of written numbers. The numbers have to be in the order that they have been given at the input. Follow the format of the instance.

Sample input 1

```
coffee      8   218 4 789 82 281 333 182 28
thyme        3    123 321 213
mint         5    789 12 45 98 798
rosemary     0
tea          1    789
chocolate   9    10 1 11 101 100 110 123321123 333222111 1111222333
```

Sample output 1

```
Case coffee: 4 789 333 (total 3)
Case thyme: (total 0)
Case mint: 12 45 98 (total 3)
Case rosemary: (total 0)
Case tea: 789 (total 1)
Case chocolate: 10 1 11 100 1111222333 (total 5)
```

Problem information

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