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The Virtual Learning Environment for Computer Programming

F009B. The toys of the nursery

P25090_en

The end of course is near! In a nursery, the educators have collected information about the toys that each girl and each boy like. To do it, the educators ask the children which is the toy they want to play with, and write down in a list the name of the boy/girl and the chosen toy.

The educators have asked you to write a program that counts the number of appearances of each pair child/toy.

Input

The input starts with a natural number $n \ge 1$. Afterwards, there is a list with the n pairs of child's name/toy. The names of the children are formed only by lowercase letters and digits.

Output

For each pair child/toy, print a line indicating how many times appears this pair. The list must be sorted by the name of the child, using the name of the toy as second criterion. Follow the format of the instances.

Observation

Some input lists can be very large. For this reason, your program must be efficient. We suggest you to use the function sort() to sort tuples (structs).

Sample input 1

arnold train bill blocks albert doll1 ronnie ball martha blocks arnold doll2 arnold doll2 ronnie ball nancy doll1 albert doll1 martha doll1 arnold doll2 martha train arnold ball ronnie ball albert blocks

Sample output 1

albert blocks 1
albert doll1 2
arnold ball 1
arnold doll2 3
arnold train 1
bill blocks 1
martha blocks 1
martha doll1 1
martha train 1
nancy doll1 1
ronnie ball 3

Sample input 2

nancy book
nancy train
arnold book
arnold ball
arnold train
arnold train
bill book
eythan tiger
carla ball
carla ball
bob doll
robert train

Sample output 2

arnold ball 1
arnold book 1
arnold train 3
bill book 1
bob doll 1
carla ball 2
eythan tiger 1
nancy book 1
nancy train 1
robert train 1

Sample input 3

3 biel train biel train biel train

Sample output 3

biel train 3

Problem information

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