Balances   P23318_en

Given a sequence of triplets formed by two names x and y and a natural n, that indicate that x has paid n euros to y, print the final balance of each person, first sorted by name, and then sorted by balance.

Input

Input is a non empty sequence of triplets formed each one by two names and a natural. There are not two people with the same name.

Output

Your program must print the final balance of each person, first sorted by name, and then sorted by balance, separated by a line with twenty dashes. In the event of a tie in the balance, it must print first the smallest name.

Sample input 1

```
john mary 1000
peter john 20000
mary anna 1000
emma anna 5000
peter michael 4000
peter paul 0
anna michael 1000
```

Sample output 1

```
anna 5000
emma -5000
john 19000
mary 0
michael 5000
paul 0
peter -24000
--------------------
peter -24000
emma -5000
mary 0
paul 0
anna 5000
michael 5000
john 19000
```

Problem information

Author: Salvador Roura
Translator: Carlos Molina

Generation: 2026-01-25T10:17:38.813Z