



Problem H: Souvenirs at Dong Ba Market

Time limit: 1s; Memory limit: 256 MB

A stall at Dong Ba Market lays out n souvenirs in a row. Souvenir i carries a name s_i and a price p_i . Two souvenirs may carry the same name and still have different prices, because the stall keeper prices every piece by hand.

A tourist wants to bring home one souvenir of every distinct name on the stall, and for each name always picks a souvenir of that name with the lowest price.

Report how many distinct names the stall has, and the total amount the tourist pays.

Input

The first line contains one integer n ($1 \leq n \leq 500,000$) — the number of souvenirs.

Each of the next n lines contains a name s_i and an integer p_i ($1 \leq p_i \leq 10^{18}$) separated by one space. Every name is a non-empty string of at most 20 lowercase English letters.

Output

Print two integers separated by one space: the number of distinct names on the stall, and the total amount the tourist pays.

Sample

Sample Input	Sample Output
4 non 50 tranh 120 non 35 tranh 120	2 155
3 nem 9 nem 9 nem 9	1 9

Explanation of the Samples

- In the first sample the stall has two distinct names. The cheapest souvenir named non costs 35 and the cheapest one named tranh costs 120, so the tourist pays $35 + 120 = 155$. Note that the cheapest non is not the first one in the row.
- In the second sample every souvenir carries the same name, so the tourist buys exactly one of them and pays 9.



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