

# Stock Management

Your sales department needs software to manage inventory and handle I / O transactions as well as statistics of total I / O values.

Note: Transactions are conducted in order. Shipments are rejected if there is not enough quantity to ship and initially there is no inventory

## Input

The first line contains the number of transactions  $N$  ( $N \leq 106$ ).

$i^{\text{th}}$  line in the next  $N$  lines starts with '+' or '-' corresponding to import or export transaction, followed by 3 integers  $C_i$ ,  $Q_i$  and  $P_i$  which are Product's code, quantity and price for each item ( $Q_i, P_i \leq 10^9$ ,  $C_i$  contains no more than 9 digits).

## Output

At the end of the transactions, for each item that has at least one successful transaction, output the product code, the total value of the import goods, and the total value of goods shipped per line (separated by spaces).

Products are exported in ascending order of product's code

## Example

### Input:

```
6
+ 1 20 20000
- 1 20 30000
+ 2 15 30000
+ 3 20 25000
- 2 25 25000
- 3 5 20000
```

### Output:

```
1 400000 600000
2 450000 0
3 500000 100000
```