Problem 3. Apartments

Input / Constraints

We have the task to create database for a businessman, who buys apartments in different neighborhoods here in Sofia.

At the first stage he does a research for available apartments. He will give you **a neighborhood name** and **a list of block numbers** in format:

{neighborhood} -> {block_num,block_num,block_num}

When you receive the command '**collectApartments**' you should **stop adding research results** and **start assigning them with the real data**. Note that the businessman can give you a **neighborhood or a block number which haven't been researched**. In this case just **do nothing**, but if he gives you **a researched neighborhood and a researched block number in this neighborhood assign the values for it.** The data will come in the following format:

{ neighborhood}&{block_number} -> {count_of_available_apartments}|{price_for_one_apartment}

It's **possible** to receive **existing neighborhood** and **block_number** and **already assigned count_of_available_apartments** with given **price**. In this case **REPLACE the old** info with the new one.

Output

When you recieve a command which says **'report',** you should print all apartments data **ordered by name of the neighborhood ascending** after that **by block_number ascending** in the following format:

Neighborhood: {neighborhood}

* Block number: {block_number} -> { count_of_available_apartments } apartments for sale. Price for one: {price_for_one_apartment }

- **If there is no available apartments** in this block in this neighborhood **just print 0** for the available apartments count.
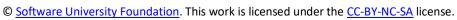- **If there is no price, just print** for price_for_one_apartment **'None'.**

Examples

Input	Output	Comments
Lozenec -> 11,2 Durvenica -> 4,3 Mladost1 -> 5,2 Mladost2 -> 7,8 collectApartments Lozenec&11 -> 2|100000 Lozenec&2 -> 1|100000 Durvenica&3 -> 5|80000 Durvenica&5 -> 15|80000 Mladost2&13 -> 6|80000 Mladost1&13 -> 7|79000 report	Neighborhood: Durvenica * Block number: 3 -> 5 apartments for sale. Price for one: 80000 * Block number: 4 -> 0 apartments for sale. Price for one: None Neighborhood: Lozenec * Block number: 2 -> 1 apartments for sale. Price for one: 100000 * Block number: 11 -> 2 apartments for sale. Price for one: 100000 Neighborhood: Mladost1 * Block number: 2 -> 0 apartments for sale. Price for one: None * Block number: 5 -> 0 apartments for sale. Price for one: None Neighborhood: Mladost2 * Block number: 7 -> 0 apartments for sale. Price for one: None * Block number: 8 -> 0 apartments for sale. Price for one: None	Here we are just collecting data for **researched** apartments.We receive the first data we should **assign**.We check that we have Lozenec in researched apartments and check that we have this block number. We have it so we store the info.We repeat the same for the next line.After that we receive another Neighborhood and again we check if we have the information for this block number in this neighborhood.We have it so we add it.On the next line we see we have the neighborhood, but we do not have this block number there, so we skip this info.We order everything and print it. Note that **we have researched block numbers** but there weren't any apartments so **the data for them is 0 and None**!

Input	Output	Comments
StudentskiGrad -> 11,2 KrasnaPolyana -> 5,2 Borovo -> 4,3 KrasnaPolyana -> 5,8 collectApartments StudentskiGrad&2 -> 3|100000 Lozenec&2 -> 1|100000 Durvenica&3 -> 5|80000 Durvenica&5 -> 15|80000 Mladost2&13 -> 6|80000 Mladost1&13 -> 7|79000 report	Neighborhood: Borovo * Block number: 3 -> 0 apartments for sale. Price for one: None * Block number: 4 -> 0 apartments for sale. Price for one: None Neighborhood: KrasnaPolyana * Block number: 2 -> 0 apartments for sale. Price for one: None * Block number: 5 -> 0 apartments for sale. Price for one: None * Block number: 8 -> 0 apartments for sale. Price for one: None Neighborhood: StudentskiGrad * Block number: 2 -> 3 apartments for sale. Price for one: 100000 * Block number: 11 -> 0 apartments for	

sale. Price for one: None	