# Mini Exam: Lists

You can check your solutions here: <https://judge.softuni.bg/Contests/3171/Additional-Exercises>.

## Names

Read a number **N** and then **N lines of names**. Print a **list** of all the names **ordered alphabetically**.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 4  Hristofor  Kolumb  Hristo  Gosho | Gosho  Hristo  Hristofor  Kolumb |

## Order Students

Write a program that helps the teacher to organise the numbers of students who will make exam in different groups. For this you need to **append several groups** of numbers in the list of examined students.

* You will receive the groups in a single line separated by '|'.
* The numbers in the groups are separated by spaces (' ', **one or several**).
* Order the groups in the final list from the **last** given group to the **first**, and their values from **left** to **right**.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 5 7 8 |4 2 6 | 9 10 | 9 10 4 2 6 5 7 8 |
| 1 | 4 8|7 0| 2 5 |3 | 3 2 5 7 0 4 8 1 |
| 1| 2 3 4 5 | 8 9 | 8 9 2 3 4 5 1 |

## Check Students

Write a program that keeps track for the presence of students in the classroom. You are given the total **number** of students in the class on the first line of input. On the next lines you are given one of the following **messages**:

* **"{name} is not here!"**
* **"{name} is here!"**

If you receive the **first** message, you have to **add** the student in the **list of missing students** if he/she **is not** already there and if he/she is in the list print on the console: "**{name} is already in the list!"**. If you receive the **second** message, you have to **remove** the student if he/she **is** in the missing list and print: "**{name} is in class!**". At the end print all the missing students.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 4  Alisia is here!  Gosho is not here!  Ivan is not here!  Gosho is here! | Gosho is in class!  Ivan |
| 5  Todor is not here!  Ana is here!  Todor is not here!  Gogo is here!  Didi is not here! | Todor is already in the list!  Todor  Didi |