## SoftUni Party

There is a party at SoftUni. Many guests are invited and there are two types of them: **Regular** and **VIP**. When a guest comes, check if he/she exists in any of the two reservation lists.

All reservation codes are **8 characters long** and all VIP numbers will start with a **digit**.

On the **first line** you will receive the number of guests – **N**. On the next **N** lines you will be receiving their reservation codes. After that, you will be receiving **guests, who came to the party,** until you read the **"END"** command.

In the end, print the **number of the guests who** **did not come** to the party and **their reservation numbers**. **The VIP guests must be first.**

Both the **VIP** and the **Regular** guests must be **sorted** in **ascending** order.

### Examples

|  |  |  |  |
| --- | --- | --- | --- |
| **Input** | **Output** | **Input** | **Output** |
| 5  7IK9Yo0h  9NoBUajQ  Ce8vwPmE  SVQXQCbc  tSzE5t0p  9NoBUajQ  Ce8vwPmE  SVQXQCbc  END | 2  7IK9Yo0h  tSzE5t0p | 6  m8rfQBvl  fc1oZCE0  UgffRkOn  7ugX7bm0  9CQBGUeJ  2FQZT3uC  2FQZT3uC  9CQBGUeJ  fc1oZCE0  END | 3  7ugX7bm0  UgffRkOn  m8rfQBvl |