Problem A
Airport Security
Problem ID: airport
Time limit: 1 second

Intelligence has learned that a dangerous criminal may have entered the country yesterday. But the information is vague: all they know is the flight number of the suspect and that, after disembarking the aircraft, the person took a suspicious amount of time to go through security. They also believe the suspect used a fake identity to enter the country.

You are an IT professional in the Immigration Department and you need to provide Intelligence with a list of the top three suspects you can find in your database. Specifically, you need to find the three people that arrived on the suspected flight and took the longest time to go through security.

This would usually be an easy task, but the database has been attacked and all the data destroyed! Luckily, there is a backup logging system. All the immigration security records from yesterday are in a log file, but you need to write a program to find what you need. *Hurry*, there is a dangerous criminal on the loose!

Input

The first line of input contains an integer N ($1 \leq N \leq 100\,000$), the number of records in the log file.

The second line of input contains the suspected person's *flight number* and the *time of arrival* of the flight.

The next N lines describe the records. Each line consists of a passenger's name, the flight they arrived on, and the time they were processed by security.

Flight numbers are strings containing capital letters and digits only. Names contain only uppercase and lowercase letters without spaces. Each flight number and name contains at least 2 and up to 25 characters. Times are of the form `HH:MM` (from `00:00` to `23:59`). The input is always valid and all the records are from the same day.

Output

Display the names of the top three suspects and the time, in minutes, they took to go through security. Display each of them on a seperate line in descending order of the time they took. In the case of a tie, display them in the order they appeared in the input. If there are fewer than three passengers on the flight of interest, then output them all.

Sample Input 1

```
5
LH2523 14:12
EduardoDeleon LH2523 15:26
SusanKeith LH2523 22:11
JamesStuart MF454 12:59
RichardPoole LH2523 21:53
JamesRivera LH2523 21:29
```

Sample Output 1

```
SusanKeith 479
RichardPoole 461
JamesRivera 437
```

Sample Input 2

```
1
QF839 13:32
TeresaWelch QF839 14:41
```

Sample Output 2

```
TeresaWelch 69
```

Sample Input 3

```
3
EK4392 19:48
JulianMccormick EK4392 21:04
PeterHarmon EK4392 21:17
JillSilva EK4392 21:05
```

Sample Output 3

```
PeterHarmon 89
JillSilva 77
JulianMccormick 76
```