

L - Pythons are Here!

The fish and game commission in South Florida has been catching and measuring Burmese Pythons in the Everglades. Needless to say, this is a little scary, since these critters have been rumored to swallow alligators and young computer programmers. The game officers have been collecting information about their catches, listing the weight in pounds, along with the date when the snake was caught. Your job is to produce a list of snakes in ascending order by weight. For any snakes that have the same weight, they must be listed in ascending order by date.

Input

The first line contains N, indicating the number of data sets that will follow. For each dataset, the next line contains S, which indicates the number of snake samples in the current data set. Then, for each value of S, each of the following lines contain two values: each Python's weight, followed by the date when the python was caught (in mm/dd/yyyy order), separated by one space. The dates within each data set are guaranteed to be in ascending order. Here is a sample dataset:

```
2
3
85 10/22/2008
66 3/1/2009
76 5/12/2009
6
120 4/10/2009
120 6/5/2009
30 8/21/2009
85 9/2/2009
62 10/22/2009
120 1/12/2010
```

Output

For each dataset, display the snake's weight, followed by a single space, followed by the date when the snake was caught. Display the values in order by weight from lowest to highest. This is called the primary sort. But for any duplicate weight values, the dates should be in increasing order. For example, in the following sample output, notice the specific ordering of the dates for the three snakes weighing 120 pounds. Follow every data set with a blank line. Here is a sample that matches the sample input data:

```
66 3/1/2009
76 5/12/2009
85 10/22/2008
```

30 8/21/2009
62 10/22/2009
85 9/2/2009
120 4/10/2009
120 6/5/2009
120 1/12/2010