

Problem Y. A problem of sorting

Time limit 1000 ms

Mem limit 65536 kB

OS Windows

There are many people's name and birth in a list. Your task is to print the name from young to old. (There is no pair of two has the same age.)

Input

First line contains a single integer $T \leq 100$ which denotes the number of test cases.

For each test case, there is a positive integer n ($1 \leq n \leq 100$) which denotes the number of people, and next n lines, each line has a name and a birth's year (1900–2015) separated by one space.

The length of name is positive and not larger than 100. Notice name only contains letter(s), digit(s) and space(s).

Output

For each case, output n lines.

Sample

Input	Output
2 1 FancyCoder 1996 2 FancyCoder 1996 xyz111 1997	FancyCoder xyz111 FancyCoder