2. All Tied Up

Program Name: All.java   **Input File: all.dat**

The only thing more complicated than the U.S. tax code is football tie-breaking procedures. For your junior football league, you've tried to simplify the tie-breakers to determine who wins a division. A division can be thought of as a group of teams. Your league consists of the following teams:

Division A	**Division B**	**Division C**	**Division D**
Armadillos	Bratwursts	Cattle	Donkeys
Anesthesiologists	Banditos	Chefs	Dopplegangers
Apples	Bananas	Coconuts	Donuts

Given a series of games played and the winner of each, write a program to determine between two teams which is better. To determine between two teams which is better:

- The team with the higher Total Win Score is better. The Total Win Score for a team is determined by subtracting its total number of losses from its total number of wins.
- If there is a tie from step 1, the team with the higher Head-to-head Score is better. The Head-to-head Score for a team is determined by subtracting its number of losses against the team it is being compared to from its number of wins against the team it is being compared to.
- If there is still a tie from steps 1-2, the team with the higher Divisional Win Score is better. The Divisional Win Score for a team is determined by subtracting its number of losses against other teams in its division from its total number of wins against other teams in its division.

Input
- The first line will contain a single integer n that indicates the number of data sets in the input.
- Each data set will consist of:
  - A line with a single integer g that indicates the number of games played, 1 <= g <= 10.
  - Then next g lines will represent a game played between two teams and will consist of two team names from the above league listing, with a single space separating them. The first team listed is the winner of that game.
  - The final line of the data set will be two team names (again from the above league listing) separated by a single space. These teams are to be compared to determine who is better.

Output
For each data set in the input, output a single line containing the name of the better team of the two given in the final line of the data set. Note that for the purposes of this problem, there will be no ties after applying the above tie-breaker algorithm.

Example Input File (see next page)

Example Input File
```
4
4
Armadillos Donkeys
Anesthesiologists Armadillos
Armadillos Donkeys
Cattle Anesthesiologists
Anesthesiologists Armadillos
3
Armadillos Bratwursts
Anesthesiologists Armadillos
Armadillos Apples
Anesthesiologists Armadillos
3
Coconuts Bananas
Bananas Bratwursts
Dopplegangers Donuts
Banditos Bananas
2
Chefs Bananas
Donkeys Donuts
Chefs Donkeys
```

Example Output to Screen
```
Armadillos
Anesthesiologists
Bananas
Donkeys
```