**The tie breaker only:**

**Goal**

In the FIFA World Cup qualifying, each group is constituted by 4 teams. Each group plays a round-robin tournament, in which each team is scheduled for 3 matches against other teams in the same group. This means that a total of 6 matches are played within a group.  
  
Points are used to rank the teams within a group: 3 points have been awarded for a win, 1for a draw and 0 for a loss.  
  
In the event of a tie between two or more teams, the best-ranked team is selected using following tie-breakers:  
1 - Greatest combined goal difference in all group matches  
2 - Greatest combined number of goals scored in all group matches  
We will assume it will be enough.  
  
Given a group of 4 teams playing their 6 games, you have to rank them using the previous rules.

**Input**

**First line** n : Number of games played in total (always 6)  
**Then, the n following lines**  
Team 1 Team 2 score  
where score is 'score1-score2'

**Output**

Team 1 Team 2 Team 3 Team 4 where the 4 teams are ranked using the rules.

**Constraints**

4 teams, 6 games so 3 games are played by each team  
scores are always greater than 0

**Example**

**Input**

Ru As 5-0

Eg Ur 0-1

Ru Eg 3-1

Ur As 1-0

Ur Ru 3-0

As Eg 2-1

**Output**

Ur Ru As Eg

# Tests

## Test1

Ru As 5-0

Eg Ur 0-1

Ru Eg 3-1

Ur As 1-0

Ur Ru 3-0

As Eg 2-1

Ur Ru As Eg

## Test2

FR Au 20-1

Pe Da 0-1

Da Au 1-1

FR Pe 1-0

Da FR 0-0

Au Pe 0-2

FR Da Pe Au

## Test 3

Al Me 0-1

Su CdS 1-0

CdS Me 1-2

Al Su 2-1

CdS Al 2-0

Me Su 0-3

Su Me CdS Al

## Test 4

Ma Ir 0-1

Po Es 3-3

Po Ma 1-0

Ir Es 0-1

Ir Po 1-1

Es Ma 2-2

Es Po Ir Ma

## Test 5

ru Br 3-8

hg ru 5-0

Br hg 0-10

po Br 0-2

ru po 5-0

po hg 7-6

hg Br ru po

## Test 6

ra pm 0-2

aa ra 3-0

pm aa 2-2

pm gf 0-4

gf ra 4-4

aa gf 6-6

gf aa pm ra

# Draft

## Test1

Ru As 5-0

Eg Ur 0-1

Ru Eg 3-1

Ur As 1-0

Ur Ru 3-0

As Eg 2-1

Ur Ru As Eg

Teams: Ru, As, Eg, Ur

Ru points: 6

Eg points:

As points: