

# Points Table



A Cricket tournament has just ended. You are given the details of every match happened in the tournament. Details include the team names between which the match was held and the runs scored by both the teams. Format of details is given below :

```
team_name_1 runs_scored_1 team_name_2 runs_scored_2
```

According to runs scored, we can check that who won the match. Winning team gets 2 points and if there is a Draw, both the teams get 1 point each.

You need to make a final points table. It is obvious that the team having highest points will be on the top, second highest points will be on second and so on. But if any two teams have same points, then they would be sorted according to the average margin with which they have won all their matches (lost matches need not to be taken in account) i.e. higher the average margin, higher the position will be in the points table.

Example - A team has won two matches with margins 50 and 60, lost three matches and one match was tied. Then average winning margin will be  $(50+60)/2 = 55$  where 50 and 60 are winning margins and 2 is the number of matches won.

If the average winning margin is also same, then teams will be sorted alphabetically according to their names.

You need to print the complete points table in the format given below

```
rank team_name points
```

All the values will be separated by space.

There may be the case that different teams have played different number of matches as some of the matches were playoffs.

## Input Format

The first line have an integer denoting the number of matches happened in the tournament say  $n$ .

Next  $n$  lines will give details of every match happened in the format as mentioned in problem statement.

## Constraints

$$1 \leq \text{NumberOfTeams} \leq 500$$

## Output Format

Output will have lines equal to the number of teams and should be printed according to the format given in the problem statement.

## Sample Input 0

```
10
KXIP 249 CSK 154
MI 151 KXIP 237
CSK 212 MI 236
KKR 245 MI 213
KXIP 188 CSK 192
KKR 162 MI 168
KKR 212 CSK 214
KXIP 235 MI 190
KKR 211 CSK 162
```

KKR 169 CSK 207

### Sample Output 0

1 KXIP 6  
2 CSK 6  
3 KKR 4  
4 MI 4

### Sample Input 1

5  
CSK 174 KXIP 211  
CSK 218 KKR 246  
KXIP 189 CSK 206  
KXIP 161 MI 161  
MI 245 KXIP 171

### Sample Output 1

1 MI 3  
2 KXIP 3  
3 KKR 2  
4 CSK 2