Problem H. Hockey Cup

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	512 megabytes

Recently the World Hockey Cup was held once again, 12 years after the previous one! During the group stage, all teams were divided into groups, four teams in each of them. The group stage is played using a round robin system: each team plays with each other team exactly once. Thus, each group will feature six games in total. After all games are played, two best teams from each group advance to the knockout stage. We are only interested in the group that contains the Russian team.

Currently five out of six games were already played and their results are known. We want to check whether the Russian team is guaranteed to advance to the next stage, or at least has a chance to advance.

The rules for the group stage of the competition are the following. Each team is playing exactly one game against each of its opponents. If the game's prime time finishes with a tie (teams' scores are equal), then teams play overtime **until one of them scores**, and that team is declared the winner of the game. Each team gets 2 points for each victory, 1 point for each loss in overtime and no points for losses in the prime time.

At the end of the round robin, teams are ordered by the total number of points earned. If two or more teams have the same number of points, the tie-breaking procedure is applied.

If only two teams are tied, the tie is always broken by the result of their head-to-head game. If there are three or four teams tied, the following values are calculated (the bigger the better) based on the results **of all games played by the team**, not only games between the tied teams.

1. The total number of wins.
2. The total number of wins in prime time.
3. The goal differential: the number of goals scored by the team minus the total number of goals conceded by the team.
4. The total number of goals scored.

The rules are applied **one by one** until all four-way and three-way ties are broken. At this point, if any two-way ties remain, each of them will automatically be broken by the head-to-head game between the two tied teams (see two-way tie criteria outlined above) and not by continuing on with any additional steps.

If there is still a tie among some teams after all the above steps, those teams will be ranked in **random order**.

Note that in the last game, each team can score **any** number of goals.

Input

The first five lines of input contain the results of the first five games, each on its own line. Each of these lines contains four or five tokens separated by single spaces: $team_A$ $team_B$ $goals_A$ $goals_B$ ($team_A \neq team_B$; $goals_A \neq goals_B$; $0 \leq goals_A, goals_B \leq 10$; $team_A, team_B \in$ {"`Russia`", "`Sweden`", "`Finland`", "`NA`"}). If the teams were playing overtime in this game, the corresponding line ends with the fifth token "`OT`" separated by a single space character.

It is guaranteed that each two teams were playing against each other at most once, and the number of goals in each overtime game differs exactly by 1.

The last line contains the names of two teams that are about to play the last game in that group separated by a single space character. It is guaranteed that they haven't played their game yet.

Output

If the team with name "Russia" is advancing to knockout stage irrelevant of the results of the group's last game, output a single line with text "`Already in playoff!`" (without quotes).

Otherwise, if the team with name "Russia" is not advancing to knockout stage no matter what the result of the group's last game is or what the result of random ranking is, output a single line with text "`No chance`" (without quotes).

Otherwise, output a line with text "`Believe in playoff!`" (without quotes).

Examples

standard input	standard output
Russia Sweden 1 2 Finland NA 1 4 NA Russia 3 4 Finland Sweden 0 2 NA Sweden 4 3 OT Finland Russia	Believe in playoff!
Russia Sweden 1 0 OT Finland NA 0 5 NA Sweden 5 0 Finland Russia 0 1 OT Russia NA 0 5 Sweden Finland	Already in playoff!
Russia Sweden 0 1 Finland NA 0 1 NA Russia 0 5 Sweden Finland 0 1 Russia Finland 0 1 NA Sweden	No chance
Russia Sweden 0 4 Finland NA 0 1 NA Sweden 0 1 Finland Russia 4 0 Sweden Finland 1 0 Russia NA	Believe in playoff!
Russia Sweden 0 1 Finland NA 10 0 Sweden Finland 0 10 Russia NA 1 0 Finland Russia 10 0 NA Sweden	Believe in playoff!

Note

In the first sample, any win should be sufficient for the team "Russia".

Consider the fourth sample.

Team	Points	Total Wins	Prime Time Wins	Goal Differential	Goals Scored
Sweden	6	3	3	6	6
NA	2	1	1	0	1
Finland	2	1	1	2	4
Russia	0	0	0	-8	0

If the Russian team wins 11 to 0 it qualifies to the knockout stage. If the team "Russia" team wins 10 to 0, then three teams use tiebreaking rules for places 2–4. The total number of wins and the total number of wins in prime time are equal for all these teams. By goal differential, the team "NA" takes the fourth place. After that, tiebreaking rules are applied again to determine the second place. Team "Finland" is better as it won the game between the two teams (the fact that team "Russia" scored more is ignored).

Consider the fifth sample.

Team	Points	Total Wins	Prime Time Wins	Goal Differential	Goals Scored
Finland	6	3	3	30	30
Sweden	2	1	1	-9	1
Russia	2	1	1	-10	1
NA	0	0	0	-11	0

The only outcome that gives team "Russia" a chance to advance to the knockout stage is win of team "NA" over team "Sweden" in regular time with score 1 to 0. In this case, all three teams will have identical results, and team "Russia" has a chance to get to the knockout stage by random.