Mia

Problem ID: mia
CPU Time limit: 1 second
Memory limit: 1024 MB
Difficulty: 2.1

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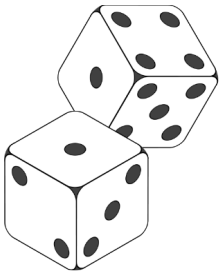
Source: 2014 Virginia Tech Hi School Programming Contest



Mia is a dice game for two players. Each roll consist of two dice. Mia involves bluffing about what a player has rolled, but in this problem we focus only on its scoring rules. Unlike most other dice games, the score of a roll is not simply the sum of the dice.

Instead, a roll is scored as follows:

- Mia (12 or 21) is always highest.
- Next come doubles (11, 22, and so on). Ties are broken by value, with 66 being highest.
- All remaining rolls are sorted such that the highest number comes first, which results in a two-digit number. The value of the roll is the value of that number, e.g. 3 and 4 becomes 43.

Input

The input will contain multiple, distinct test cases. Each test case contains on a single line four integers s_0 s_1 r_0 r_1 where s_0 s_1 represent the dice rolled by player 1 and r_0 r_1 represents the dice rolled by player 2. The input will be terminated by a line containing 4 zeros.

Output

For each test case, output which player won, or whether there was a tie, using exactly the format shown below.

Sample Input 1

```
1 2 1 3
3 3 2 1
6 6 4 4
6 5 1 1
4 2 2 4
0 0 0 0
```

Sample Output 1

```
Player 1 wins.
Player 2 wins.
Player 1 wins.
Player 2 wins.
Tie.
```