Problem D
Dice Game
Problem ID: dicegame

Gunnar and Emma play a lot of board games at home, so they own many dice that are not normal 6-sided dice. For example they own a die that has 10 sides with numbers $47, 48, \ldots, 56$ on it.

There has been a big storm in Stockholm, so Gunnar and Emma have been stuck at home without electricity for a couple of hours. They have finished playing all the games they have, so they came up with a new one. Each player has 2 dice which he or she rolls. The player with a bigger sum wins. If both sums are the same, the game ends in a tie.



Photo by JD Hancock

Task

Given the description of Gunnar's and Emma's dice, which player has higher chances of winning?

All of their dice have the following property: each die contains numbers $a, a+1, \ldots, b$, where a and b are the lowest and highest numbers respectively on the die. Each number appears exactly on one side, so the die has $b - a + 1$ sides.

Input

The first line contains four integers a_1, b_1, a_2, b_2 that describe Gunnar's dice. Die number i contains numbers $a_i, a_i + 1, \ldots, b_i$ on its sides. You may assume that $1 \leq a_i \leq b_i \leq 100$. You can further assume that each die has at least four sides, so $a_i + 3 \leq b_i$.

The second line contains the description of Emma's dice in the same format.

Output

Output the name of the player that has higher probability of winning. Output "`Tie`" if both players have same probability of winning.

Sample Input 1

```
1 4 1 4
1 6 1 6
```

Sample Output 1

```
Emma
```

Sample Input 2

```
1 8 1 8
1 10 2 5
```

Sample Output 2

```
Tie
```

Sample Input 3

```
2 5 2 7
1 5 2 5
```

Sample Output 3

```
Gunnar
```

This page is intentionally left (almost) blank.