

DMOPC '15 Contest 2 P2 - Admin War

Time limit: 1.0s **Memory limit:** 64M

Xyene and **FatalEagle** don't always get along. When they're feeling particularly confrontational, they usually quietly settle the matter with a friendly game of Admin War.

In this two-person game, the players are each dealt N cards. The players will then continuously draw cards from the top of their decks and compare their values, with the player whose card has a higher value winning 1 point. In the case of a tie, **neither player wins a point**. All cards are discarded after being played and the game ends when neither player has any more cards.

The player with more points when the game ends is the winner. If both players have the same amount of points, the game results in a tie.

The normal cards in a deck of cards are, from lowest to highest value: 2, 3, 4, 5, 6, 7, 8, 9, 10, *J*, *Q*, *K*, *A*. However, **Xyene** and **FatalEagle** are too busy to buy an actual deck, and instead play with a ~~sketchy~~ special deck where *J*, *Q*, *K*, and *A* are replaced with 11, 12, 13, and 14, respectively. Their deck can also contain more than 4 copies of each card.

You have taken a peek at each of their decks while they weren't paying attention and would like to know the outcome of the game.

Input Specification

The first line of input contains N ($1 \leq N \leq 200$), the number of cards in each player's deck.

The second line contains N space-separated integers, indicating **Xyene**'s cards from top to bottom.

The third line contains N space-separated integers, indicating **FatalEagle**'s cards from top to bottom.

Card values are guaranteed to be between 2 and 14, inclusive.

Output Specification

On the first line, output **Xyene** and **FatalEagle**'s final scores respectively, separated by a space.

On the second line, output the winner of the game: `Xyene`, `FatalEagle`, or `Tie` if there is a tie.

Sample Input 1

```
3
7 13 4
2 14 11
```

Sample Output 1

```
1 2
FatalEagle
```

Explanation for Sample Output 1

Xyene won the first round but **FatalEagle** won the next two. Therefore, the final score is 1 : 2, and **FatalEagle** is the winner.

Sample Input 2

```
5
14 14 14 14 14
2 2 2 2 2
```

Sample Output 2

```
5 0
Xyene
```

Explanation for Sample Output 2

Xyene ~~swept~~ won all rounds by a wide margin, winning the game with a final score of 5 : 0.

Sample Input 3

```
6
5 12 6 14 7 9
10 12 6 13 8 8
```

Sample Output 3

2 2

Tie

Explanation for Sample Output 3

Xyene won rounds 4 and 6, **FatalEagle** won rounds 1 and 5, and rounds 2 and 3 culminated in ties. Therefore, the final score is 2 : 2 and the game ends in a tie.