Interesting Game

? Ask Doubt

Time-Limit: 1 sec Score: 0/100 Difficulty :

Memory: 256 MB Accepted Submissions: 100 Relevant For: AZ-201 AZ-202 AZ-301

Description

Alice and Bob are playing a new game, which is very interesting and fun. The game is as follows:

1. The game starts with two *n*-sized integer arrays, *A* and *B*, and is played by two players, P_1 and P_2.
2. The players move in alternating turns, with P_1 always moving first. During each move, the current player must choose an integer, *i*, such that $0 \le i \le n - 1$. If the current player is P_1, then P_1 receives A_i points; if the current player is P_2, then P_2 receives B_i points.
3. Each value of *i* can be chosen only once. That is, if a value of *i* is already chosen by some player, none of the players can re-use it. So, the game always ends after *n* moves.
4. The player with the maximum number of points wins.
5. The arrays *A* and *B* are accessible to both the players P_1 and P_2. So the players make an optimal move at every turn.

Given the values of *n, A*, and *B*, can you determine the outcome of the game? P_1 is Alice and P_2 is Bob.
Print ‘Alice’ if Alice will win, 'Bob' if Bob will win, or 'Tie' if they will tie. Assume both players always move *optimally*.

Input Format

The first line of input contains one integer T ($1 \le T \le 10$) — the number of test cases. Then T test cases follow.
The first line of each test case contains N ($2 \le N \le 1000$), the number of elements in arrays *A* and *B*.
The second line contains N space-separated integers $A_1, A_2, ..., A_N$ - the elements of array *A*.
The third line contains N space-separated integers $B_1, B_2, ..., B_N$ - the elements of array *B*.

Output Format

For each test case, print one of the following predicted outcomes of the game on a new line:

1. Print 'Alice' if Alice will win.
2. Print 'Bob' if Bob will win.
3. Print 'Tie' if the two players will tie.

Constraints

$1 \le T \le 10$
$2 \le N \le 1000$
$1 \le A_i, B_i \le 10^5$

Sample Input 1

Copy

```
3
3
1 3 4
```

C++14[GCC]

Submit

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1
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