Gaming Array

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Andy loves playing games. He wants to play a game with his little brother, Bob, using an array, A, of n distinct integers. The rules are as follows:

- Bob always plays first and the two players move in alternating turns.
- In a single move, a player chooses the maximum element currently present in the array and removes it as well as all the other elements to its right. For example, if $A = [2, 3, 5, 4, 1]$, then it becomes $A = [2, 3]$ after the first move because we remove the maximum element (i.e., 5) and all elements to its right (i.e., 4 and 1).
- The modifications made to the array during each turn are permanent, so the next player continues the game with the remaining array. The first player who is unable to make a move loses the game.

Andy and Bob play g games. Given the initial array for each game, can you find and print the name of the winner on a new line? If Andy wins, print `ANDY`; if Bob wins, print `BOB`.

Input Format

The first line contains a single integer denoting g (the number of games). The $2 \cdot g$ subsequent lines describe each game array over two lines:

1. The first line contains a single integer, n, denoting the number of elements in A.
2. The second line contains n distinct space-separated integers describing the respective values of $a_0, a_1, \ldots, a_{n-1}$ for array A.

Constraints

- Array A contains n distinct integers.

For 35% of the maximum score:

- $1 \leq g \leq 10$
- $1 \leq n \leq 1000$
- $1 \leq a_i \leq 10^5$
- The sum of n over all games does not exceed 1000.

For 100% of the maximum score:

- $1 \leq g \leq 100$
- $1 \leq n \leq 10^5$
- $1 \leq a_i \leq 10^9$
- The sum of n over all games does not exceed 10^5.

Output Format

For each game, print the name of the winner on a new line (i.e., either `BOB` or `ANDY`).

Sample Input 0

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

Sample Output 0

```
ANDY
BOB
```

Explanation 0

Andy and Bob play the following two games:

1. Initially, the array looks like this:

In the first move, Bob removes 6 and all the elements to its right, resulting in $A = [5, 2]$:

In the second move, Andy removes 5 and all the elements to its right, resulting in $A = []$:

At this point, the array is empty and Bob cannot make any more moves. This means Andy wins, so we print `ANDY` on a new line.

2. In the first move, Bob removes 3 and all the elements to its right, resulting in $A = []$. As there are no elements left in the array for Andy to make a move, Bob wins and we print `BOB` on a new line.

Submissions: 375
Max Score: 35
Difficulty: Medium

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Current Buffer (saved locally, editable) C#

```
using System;
using System.Collections.Generic;
using System.IO;
using System.Linq;
class Solution {

    static void Main(String[] args) {
        int g = int.Parse(Console.ReadLine());

            while (g-- > 0)
            {
                int n = int.Parse(Console.ReadLine());
                int[] a = Array.ConvertAll(Console.ReadLine().Split(' '), e => int.Parse(e));

                int max = 0, cant_maximos =0;

                for (int i = 0; i < n; i++)
                {
                    if (a[i] > max)
                    {
```

```
                    max = a[i];
                    cant_maximos++;
                }
            }

            if (cant_maximos % 2 == 0)
            {
                Console.WriteLine("ANDY");

            }
            else
            {
                Console.WriteLine("BOB");
            }
        }
    }
}

```

Line: 1 Col: 1

Upload Code as File Test against custom input Run Code Submit Code

Congrats, you solved this challenge!

✔ Test Case #0	✔ Test Case #1	✔ Test Case #2
✔ Test Case #3	✔ Test Case #4	✔ Test Case #5
✔ Test Case #6	✔ Test Case #7	✔ Test Case #8
✔ Test Case #9	✔ Test Case #10	✔ Test Case #11
✔ Test Case #12	✔ Test Case #13	✔ Test Case #14
✔ Test Case #15	✔ Test Case #16	✔ Test Case #17
✔ Test Case #18	✔ Test Case #19	✔ Test Case #20

Next Challenge