

Gaming Array **■**



Problem Submissions Leaderboard Discussions Editorial

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:

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

For 100% of the maximum score:

- $1 \le g \le 100$
- $1 \le n \le 10^5$
- $1 \le a_i \le 10^9$
- 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

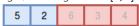
Explanation 0

Andy and Bob play the following two games:

1. Initially, the array looks like this:



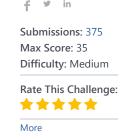
In the first move, Bob removes ${f 6}$ and all the elements to its right, resulting in ${f A}=[{f 5},{f 2}]$:



In the second move, Andy removes ${f 5}$ and all the elements to its right, resulting in ${f A}=[\![$

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 $\bf 3$ and all the elements to its right, resulting in $\bf A = []$. 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.



```
Current Buffer (saved locally, editable) &
                                                                                          C#
                                                                                                                           Ö
   using System;
   using System.Collections.Generic;
   using System.IO;
   using System.Linq;
 5 ▼ class Solution {
 6
 7 ▼
        static void Main(String[] args) {
 8
            int g = int.Parse(Console.ReadLine());
 9
10
                while (g-- > 0)
11 •
                    int n = int.Parse(Console.ReadLine());
12
                    int[] a = Array.ConvertAll(Console.ReadLine().Split(' '), e => int.Parse(e));
13
14
15
                    int max = 0, cant_maximos =0;
16
17
                    for (int i = 0; i < n; i++)
18 •
19
                         if(a[i] > max)
20 ▼
```

```
21
                              max = a[i];
22
                              cant_maximos++;
23
                         }
24
                     }
25
                     if (cant_maximos % 2 == 0)
26
27 ▼
                         Console.WriteLine("ANDY");
28
29
30
                     }
31
                     else
32 ▼
33
                         Console.WriteLine("BOB");
34
35
                 }
36
        }
37
    }
38
                                                                                                                       Line: 1 Col: 1
```

1 Upload Code as File

Test against custom input

Run Code

Submit Code

Congrats, you solved this challenge!

- ✓ Test Case #0
- ✓ Test Case #3
- ✓ Test Case #6
- ✓ Test Case #9
- ✓ Test Case #12
- ✓ Test Case #15
- ✓ Test Case #18

- ✓ Test Case #1
- ✓ Test Case #4
- ✓ Test Case #7
- ✓ Test Case #10
- ✓ Test Case #13
- ✓ Test Case #16
- ✓ Test Case #19

- ✓ Test Case #2
- ✓ Test Case #5
- ✓ Test Case #8
- ✓ Test Case #11
- ✓ Test Case #14
- ✓ Test Case #17
- ✓ Test Case #20

Next Challenge

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