Task: EVE Even Sums Game



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Even Sums is a game for two players. Players are given a sequence of n positive integers and take turns alternately. In each turn, a player chooses a non-empty slice (a subsequence of consecutive elements) such that the sum of values in this slice is even, then removes the slice and concatenates the remaining parts of the sequence. The first player who is unable to make a legal move loses the game.

You play this game against your opponent and you want to know if you can win, assuming both you and your opponent play optimally. You move first.

Input

In the first line of the input there is an integer n $(n \ge 1)$, specifying the size of the sequence. In the second line there is sequence a_1, a_2, \ldots, a_n $(1 \le a_i \le 10^9)$ itself.

Output

If you do not have a winning strategy, write the word NIE (Polish for no) in the only line of the output. Otherwise, write two integers x and y, separated by a space, being the first and last positions (inclusive) of the slice that you should remove on your first move in order to win, assuming you have a winning strategy. If there is more than one such winning slice, you should return the one with the smallest value of x. If there is more than one slice with the smallest value of x, you should return the shortest.

Example

For the input data: the correct result is:

5 2 3

4 5 3 7 2

and for the input data: the correct result is:

3 NIE

2 5 4

Explanation of the example: In the first example the function should return x = 2, y = 3. After removing a slice from positions 2 to 3 (with an even sum of 5+3=8), the remaining array is 4, 7, 2. Then the opponent will be able to remove the first element (of even sum 4) or the last element (of even sum 2). Afterwards you can make a move that leaves the array containing just 7, so your opponent will not have a legal move and will lose. Note that removing slice x = 3, y = 4 (with an even sum of 3+7=10) is also a winning move, but slice x = 2, y = 3 has a smaller value of x.

Grading

Subtask	Constraints	Points
1	$n \le 25$	40
2	$n \le 1000$	30
3	$n \le 100000$	30