

Swapping in an Array



Safisko has an array a with n positive integer elements. Safisko likes order, so he wants his array to be sorted. (A *sorted* array is an array that contains non-decreasing elements in increasing index order.) He decides to swap two elements in the array to make his array sorted. (A *swap* is defined as switching two elements at distinct locations in the array.) Your task is to determine if this can be done.

If you can't sort the array with one swap, print -1 . If the array is already sorted, print 0 . If he can sort the array with one swap, print 1 .

Complete the function `swapToSort` which takes in an integer array a and returns -1 , 0 or 1 , according to the above.

Input Format

The first line contains a single integer n . The second line contains n space-separated integers a_1, a_2, \dots, a_n , the elements of the array a .

Constraints

- $1 \leq n \leq 10^3$
- $1 \leq a_i \leq 10^9$

Output Format

Print a single line containing an integer denoting the answer. This should be either -1 , 0 , or 1 .

Sample Input 0

```
5
1 10 3 4 3
```

Sample Output 0

```
1
```

Explanation 0

Since the array can be sorted in a single swap, the output is 1 .

Sample Input 1

```
5
1 2 2 4 5
```

Sample Output 1

```
0
```

Explanation 1

The array is already sorted, hence the right output is 0 .

Sample Input 2

```
7
6 2 4 3 5 1 7
```

Sample Output 2

-1

Explanation 2

Since the array cannot be sorted in a single swap, the right output is **−1**.