

Almost Sorted



Given an array with n elements, can you sort this array in ascending order using only one of the following operations?

- 1. Swap two elements.
- 2. Reverse one sub-segment.

Input Format

The first line contains a single integer, n, which indicates the size of the array.

The next line contains n integers separated by spaces.

```
n
d1 d2 ... dn
```

Constraints

2 < n < 100000

 $0 \le d_i \le 1000000$

All d_i are distinct.

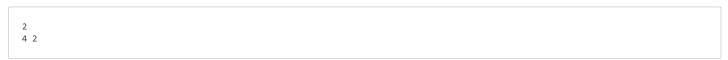
Output Format

- 1. If the array is already sorted, output yes on the first line. You do not need to output anything else.
 - 1. If you can sort this array using one single operation (from the two permitted operations) then output *yes* on the first line and then:
 - **a.** If you can sort the array by swapping d_l and d_r , output swap lr in the second line. l and r are the indices of the elements to be swapped, assuming that the array is indexed from l to l.
 - **b.** Else if it is possible to sort the array by reversing the segment $d[l \dots r]$, output *reverse I r* in the second line. l and r are the indices of the first and last elements of the subsequence to be reversed, assuming that the array is indexed from l to l.
 - $d[l \dots r]$ represents the sub-sequence of the array, beginning at index l and ending at index r, both inclusive.

If an array can be sorted by either swapping or reversing, stick to the swap-based method.

2. If you cannot sort the array in either of the above ways, output no in the first line.

Sample Input #1



Sample Output #1

```
yes
swap 1 2
```

Sample Input #2

```
3
3 1 2
```

Sample Output #2

```
no
```

Sample Input #3

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

Sample Output #3

```
yes
reverse 2 5
```

Explanation

For #1, you can both swap(1, 2) and reverse(1, 2), but if you can sort the array using swap, output swap only. For #2, it is impossible to sort by one single operation (among those permitted).

For #3, you can reverse the sub-array d[2...5] = "5 4 3 2", then the array becomes sorted.

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> Submissions: 3472 Max Score: 50

Difficulty: Moderate

More

```
Current Buffer (saved locally, editable) & 49
                                                                                        Java 8
                                                                                                                         *
1 import java.io.*;
 import java.util.*;
3
4 ▼ public class Solution {
5
6 ▼
       public static void main(String[] args) {
           /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named
   Solution. */
8
       }
9
  }
                                                                                                                 Line: 1 Col: 1
```

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