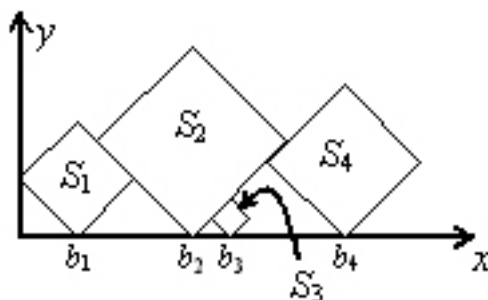


3799 Kadj Squares

In this problem, you are given a sequence S_1, S_2, \dots, S_n of squares of different sizes. The sides of the squares are integer numbers. We locate the squares on the positive $x - y$ quarter of the plane, such that their sides make 45 degrees with x and y axes, and one of their vertices are on $y = 0$ line. Let b_i be the x coordinates of the bottom vertex of S_i . First, put S_1 such that its left vertex lies on $x = 0$. Then, put S_i , ($i > 1$) at minimum b_i such that

- $b_i > b_{i-1}$ and
- the interior of S_i does not have intersection with the interior of $S_1 \dots S_{i-1}$.



The goal is to find which squares are visible, either entirely or partially, when viewed from above. In the example above, the squares S_1 , S_2 , and S_4 have this property. More formally, S_i is visible from above if it contains a point p , such that no square other than S_i intersect the vertical half-line drawn from p upwards.

Input

The input consists of multiple test cases. The first line of each test case is n ($1 \leq n \leq 50$), the number of squares. The second line contains n integers between 1 to 30, where the i -th number is the length of the sides of S_i . The input is terminated by a line containing a zero number.

Output

For each test case, output a single line containing the index of the visible squares in the input sequence, in ascending order, separated by blank characters.

Sample Input

```
4
3 5 1 4
3
2 1 2
0
```

Sample Output

```
1 2 4
1 3
```