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Cut the sticks

by [shashank21j](#)[Problem](#)[Submissions](#)[Leaderboard](#)[Discussions](#)[Editorial](#)[Topics](#)

You are given N sticks, where the *length* of each stick is a positive integer. A *cut operation* is performed on the sticks such that all of them are reduced by the length of the smallest stick.

Suppose we have six sticks of the following lengths:

5 4 4 2 2 8

Then, in one *cut operation* we make a cut of length 2 from each of the six sticks. For the next *cut operation* four sticks are left (of non-zero length), whose lengths are the following:

3 2 2 6

The above step is repeated until no sticks are left.

Given the length of N sticks, print the number of sticks that are left before each subsequent *cut operations*.

Note: For each *cut operation*, you have to recalculate the length of smallest sticks (excluding zero-length sticks).

Input Format

The first line contains a single integer N .

The next line contains N integers: a_0, a_1, \dots, a_{N-1} separated by space, where a_i represents the length of the i^{th} stick.

Output Format

For each operation, print the number of sticks that are cut, on separate lines.

Constraints

- $1 \leq N \leq 1000$
- $1 \leq a_i \leq 1000$

Sample Input 0

6
5 4 4 2 2 8

Sample Output 0

6
4
2
1

Sample Input 1

8
1 2 3 4 3 3 2 1

Sample Output 1

8
6
4
1

Explanation

Sample Case 0 :

sticks-length	length-of-cut	sticks-cut
5 4 4 2 2 8	2	6
3 2 2 _ _ 6	2	4
1 _ _ _ _ 4	1	2
_ _ _ _ _ 3	3	1
_ _ _ _ _	DONE	DONE

Sample Case 1

sticks-length	length-of-cut	sticks-cut
1 2 3 4 3 3 2 1	1	8
_ 1 2 3 2 2 1 _	1	6
_ _ 1 2 1 1 _ _	1	4
_ _ _ 1 _ _ _ _	1	1
_ _ _ _ _ _ _ _	DONE	DONE

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Submissions: 66228

Max Score: 25

Difficulty: Easy

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Current Buffer (saved locally, editable)
Python 2

```

1  #!/bin/python
2
3  import sys
4
5
6  n = int(raw_input().strip())
7  arr = map(int,raw_input().strip().split(' '))
8
9  while len(arr)>0:
10     print(len(arr))
11     m = min(arr)
12     arr = filter(lambda a: a != m, arr)
13

```

Line: 11 Col: 16

[Upload Code as File](#) ☐ Test against custom input

Run Code

Submit Code

Congrats, you solved this challenge!

✓ Test Case #0

✓ Test Case #1

✓ Test Case #2

✓ Test Case #3
✓ Test Case #6
✓ Test Case #9

✓ Test Case #4
✓ Test Case #7

✓ Test Case #5
✓ Test Case #8

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