



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

[f](#) [t](#) [in](#)

Submissions: [84478](#)

Max Score: 25

Difficulty: Easy

Rate This Challenge:

☆☆☆☆☆

Need Help?

[Sorting](#)

[More](#)

Current Buffer (saved locally, editable) [🔗](#) [🔄](#)

Java 7



```

1 import java.io.*;
2 import java.util.*;
3 import java.text.*;
4 import java.math.*;
5 import java.util.regex.*;
6
7 public class Solution {
8
9     public static void main(String[] args) {
10         Scanner in = new Scanner(System.in);
11         int n = in.nextInt();
12         int arr[] = new int[n];
13         for(int arr_i=0; arr_i < n; arr_i++){
14             arr[arr_i] = in.nextInt();
15         }
16     }
17 }
18

```

Line: 1 Col: 1

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

Run Code

Submit Code

Join us on IRC at [#hackerrank](#) on freenode for hugs or bugs.

[Contest Calendar](#) | [Blog](#) | [Scoring](#) | [Environment](#) | [FAQ](#) | [About Us](#) | [Support](#) | [Careers](#) | [Terms Of Service](#) | [Privacy Policy](#) | [Request a Feature](#)