Cut the sticks

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 recalcuate 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: $a_0, a_1,...a_{N-1}$ separated by space, where a_i represents the length of 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 #00

```
6
5 4 4 2 2 8
```

Sample Output #00

```
6
4
2
1
```

Sample Input #01

```
8
1 2 3 4 3 3 2 1
```

Sample Output #01

```
8
6
4
1
```

Explanation

Sample Case #00 :

```
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 #01

```
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
```