

Cut the sticks



Problem Statement

You are given **N** sticks, where each stick is of positive integral length. 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 6 sticks of length

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

then in one *cut operation* we make a cut of length 2 from each of the 6 sticks. For next *cut operation* 4 sticks are left (of non-zero length), whose length are

```
3 2 2 6
```

Above step is repeated till no sticks are left.

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

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 in separate line.

Constraints

- 1 ≤ *N* ≤ 1000
- 1 ≤ *a*_{*i*} ≤ 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 |