

Cut the sticks

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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, \dots, 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

$$1 \leq N \leq 1000$$

$$1 \leq a_i \leq 1000$$

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