Problem A. Different Colors

Time limit	1000 ms
Code length Limit	50000 B
OS	Linux

There are N different types of colours numbered from 1 to N. Alice has A_i beads having colour i, $(1 \leq i \leq N)$.

Alice makes bracelets and wants to put each bead in **exactly one** of those bracelets.
Find the **minimum** number of bracelets Alice needs so that **no** bracelets contains **two** beads of same colour.

Input Format

- The first line of input will contain a single integer T, denoting the number of test cases. The description of the test cases follows.
- The first line of each test case contains a single integer N, denoting the number of colors.
- The second line of each test case contains N space-separated integers $A_1, A_2, \ldots, A_N$ — denoting the number of beads having colour i.

Output Format

For each test case, output the **minimum** number of bracelets required so that no bracelet contains two beads of same colour.

Constraints

- $1 \leq T \leq 1000$
- $2 \leq N \leq 100$
- $1 \leq A_i \leq 10^5$

Sample 1

Input	Output
3 2 8 5 3 5 10 15 4 4 4 4 4	8 15 4

Test case 1: Alice needs at least 8 bracelets such that no bracelet has two beads of same colour. A possible configuration of the 8 bracelet would be $[1, 2], [1, 2], [1, 2], [1, 2], [1, 2], [1], [1], [1]$ where

the i^{th} element of this set denotes the colour of balls in the i^{th} box.

Test case 2**:** Alice needs at least 15 bracelets such that no bracelet has two beads of same colour.

Test case 3**:** Alice needs at least 4 bracelets such that no bracelet has two beads of same colour. A possible configuration of the 4 bracelets would be $[1, 2, 3, 4]$, $[1, 2, 3, 4]$, $[1, 2, 3, 4]$, $[1, 2, 3, 4]$ where the i^{th} element of this set denotes the colour of beads in the i^{th} bracelet.