

Codeforces and Polygon may be unavailable from [August 25, 16:30 \(UTC\)](#) to [August 26, 6:00 \(UTC\)](#) due to technical maintenance.

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

B. Pokemon Berry Festival

time limit per test: 1 second
memory limit per test: 256 megabytes

Gary Oak is a Pokémon trainer who loves taking on unique challenges.

There are N types of Pokémon berries. On day 1, the i^{th} type has A_i berries available.

Each day, Gary may choose exactly one type of berry and harvest all the berries of that type available on that day. After each day ends, the berries of every unharvested type spoil and their count decreases by exactly 1 (but not below 0).

Gary may continue this harvesting process day by day, until no berries remain.

Your task is to help Gary maximize the total number of berries he can collect.

Input
The first line contains an integer T — the number of test cases.

For each test case:

The first line contains an integer N — the number of fruit types.

The second line contains $N(1 \leq N \leq 10^6)$ integers A_1, A_2, \dots, A_n — where $A_i(1 \leq A_i \leq 10^9)$ is the number of fruits of type i available on day 1.

Output
For each test case, print a single integer — the maximum total number of fruits that can be collected.

Scoring

Subtask	Constraints	Points
1	$1 \leq N \leq 10^3, 1 \leq A_i \leq 10^3,$	100
2	$1 \leq N \leq 10^6, 10^3 \leq A_i \leq 10^9$	100

Example

input	Copy
<pre>1 5 4 1 3 5 4</pre>	
output	Copy
<pre>10</pre>	

Note
Initial: 4 1 3 5 4

Day 1 — pick index 3 (value 3) Collected = 3 After spoilage: 3 0 0 4 3

Day 2 — pick index 1 (value 3) Collected = 3 After spoilage: 0 0 0 3 2

Day 3 — pick index 4 (value 3) Collected = 3 After spoilage: 0 0 0 0 1

Day 4 — pick index 5 (value 1) Collected = 1 After spoilage: 0 0 0 0 0

Total collected = 3 + 3 + 3 + 1 = 10

Codemon 1

Contest is running

01:36:37

Contestant



→ Submit?

Language: GNU GCC C11 5.1.0

Choose file: Choose file No file chosen

Submit

	Points
A	
B	
C	
D	
E	
F	



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The only programming contests Web 2.0 platform
Server time: Aug/24/2025 11:00:08^{UTC+5.5} (i2).
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