1. No Change (`maks`)

1 sec / 3 sec 20 points

Jack has N coins, with values $M_1, M_2, \ldots, M_N$. Find the smallest positive amount that cannot be paid with these coins with no change.

Input. The first line contains N ($1 \leq N \leq 1\,000$), the number of coins. The second line contains N integers M_i ($1 \leq M_i \leq 1\,000\,000$), the values of the coins.

Output. The only line should contain a single positive integer: the smallest amount that Jack cannot pay with his coins.

Example.

Input	Output
3 1 2 5	4

These coins can be used to pay the amounts 1, 2, and $3 = 1 + 2$, but it's not possible to pay the amount 4 exactly.

Example.

Input	Output
3 1 2 2	6

These coins can be used to pay any amount from 1 to 5, but there's just not enough money to pay the amount 6.

Grading. In test cases worth 10 points in total, $N \leq 10$ and the coins are listed in non-decreasing order of their values (i.e., $M_1 \leq M_2 \leq \cdots \leq M_N$). In the next set of test cases worth 5 points in total, the coins are listed in non-decreasing order. There are no additional constraints in the remaining test cases.