Problem A

Not Appear

Time limit: 1 second
Memory: 1024 megabytes

Problem Description

Ut kho is extremely passionate about numbers, and he is always fascinated by how numbers interact and can transform into one another. Throughout his time in class, Ut kho has often been challenged with arithmetic problems, but today he was given a rather simple problem: "Given an array of integers **A** consisting of **N** elements, find the largest integer in this array." Although the problem seems easy, it does not truly stimulate Ut kho's creativity.

Instead of simply solving the problem assigned by the teacher, Ut kho came up with a new, entirely different problem - one that is more interesting and challenging, and that he hopes to share with his friends. Specifically, the problem Ut kho thought of is: "Given an array of **N** positive integers **A**, ($\mathbf{A_1}$, $\mathbf{A_2}$, ..., $\mathbf{A_N}$), your task is to create a new array **B** from array **A**, where each element in array **B** is formed by selecting one or more elements from array **A** and calculating their sum."

For example, if the array **A** has **4** elements: **1**, **5**, **2**, **6**, the possible sums that can be generated are: **1**, **2**, **3** (from **1** + **2**), **5**, **6**, **7** (from **1** + **6**), **8** (from **2** + **6**), **9** (from **6** + **2** + **1**), **11** (from **5** + **6**), **12** (from **6** + **5** + **1**), **13** (from **5** + **2** + **6**), and **14** (from **1** + **5** + **2** + **6**). Thus, the newly formed array **B** will contain the values: **1**, **2**, **3**, **5**, **6**, **7**, **8**, **9**, **11**, **12**, **13**, and **14**.

The goal of the problem is to find the smallest positive integer that does not appear in this array **B**. This is the challenge that Ut kho has set forth, a problem he finds quite intriguing and wants everyone to solve together.

Input:

- The first line contains a positive integer **N** (**N ≤ 100**).
- The second line contains **N** positive integers $\mathbf{A_1}$, $\mathbf{A_2}$, ..., $\mathbf{A_N}$ (each $\mathbf{A_i \leq 10^4}$).

Output:

- Print the smallest positive integer that does not appear in array **B** as required by the problem.

Example:

INPUT	OUTPUT
4 1 5 2 6	4