Subset

Let $S = \{a_1, a_2, \ldots, a_n\} \subset \mathbb{Z}$.

We endeavor to identify the subset $T \subseteq S$ that optimizes the aggregate value M of its constituent elements.

More formally $M = \max_{x_1,\ldots,x_n \in \{0,1\}} \sum_{i=1}^{n} a_i x_i$

Implementation Details

It is incumbent upon you to devise a program that executes the following procedures.
Given the set of length N, output M

Input

The first line contains an integer N $(0 \leq N \leq 2 \times 10^5)$

The second line contains N integers, denoted as $b_1, b_2, \ldots, b_N$; $b_i \in S$

It is axiomatically stipulated that the value of b_i is commensurate with the parameters of a conventional 32-bit signed integer (int).

Output

Comprises a singular line, the value of M.

Subtasks

1. (1 point) $N \leq 20, b_i = 0$.
2. (99 points) No additional constraints.

Example Test Cases

Test Case 1

Input	Output
4 1 2 3 4	10

Test Case 2

Input	Output
3 1 2 7	10

Limits

- Time limit: 1 seconds
- Memory limit: 64 MB