Problem K. Know Your Powers

Time limit: 6 seconds
Memory limit: 1024 mebibytes

For a nonnegative integer k and a positive integer n, let $\sigma_k(n)$ denote the sum of k-th powers of all divisors of the number n.

Formally,

$$\sigma_k(n) := \sum_{d \mid n} d^k.$$

You are given n integers $a_1, \ldots, a_n$. Find the value of the following sum:

$$\sum_{1 \le i < j \le n} \sigma_1(a_i + a_j).$$

Input

The first line contains the only integer n ($2 \le n \le 4000$).

The second line contains n positive integers $a_1, \ldots, a_n$ separated by spaces ($1 \le a_i \le 10^9$).

Output

In the only line, print the answer to the problem.

Example

standard input	standard output
5 1 2 3 4 5	91