Problem B. Even answer

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Vanya has an array of N integers $a_1, a_2, \ldots, a_N$. He wants to calculate the sum of these numbers. But he also wants the sum to be non-negative, even and minimum possible at the same time. So, he decided to multiply one of the numbers by any integer before adding the numbers.

Help Vanya to get the sum he wants.

Input

The first line of input contains an integer N — the size of the array A.

In the next line there are N integers $a_1, a_2, \ldots, a_N$ — the elements of the array A.

$$1 \leq N \leq 10^5$$
$$-10^9 \leq a_i \leq 10^9$$

Output

Output a single integer — the required sum. If there is no answer then output `-1`.

Examples

standard input	standard output
2 7 3	4
2 7 10	10
3 42 43 86	42