

Game of Maximization

There are n piles of stones, where the i^{th} pile has a_i stones. You need to collect the maximum number of stones from these piles, but you must fulfill the following condition:

Let's say you pick x_i ($1 \leq i \leq n$) stones from the i^{th} pile, then

- $x_1 + x_3 + x_5 + \dots = x_2 + x_4 + x_6 + \dots$
- $0 \leq x_i \leq a_i$

For example, if $n = 3$ and $a = [2, 3, 2]$, you can pick the stones as $x = [1, 2, 1]$ because $x_1 + x_3 = 1 + 1 = 2$ and $x_2 = 2$

Find the maximum total number of stones you can pick.

Input Format

The first line of input contains a single integer n denoting the number of piles.

The second line of input contains n space separated integers a_i , where the i^{th} integer denoted the number of stones in i^{th} pile.

Constraints

- $2 \leq n \leq 10^5$
- $1 \leq a_i \leq 10^3$

Output Format

Print a single integer denoting the maximum total number of stones you can pick.

Sample Input 0

```
4
5 1 1 4
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Sample Output 0

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10
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Explanation 0

Let $x = [4, 1, 1, 4]$. hence $x_1 + x_3 = x_2 + x_4$ and total number of stones picked is 10. It can be checked that its not possible to pick any greater number of stones.

Sample Input 1

3
2 1 2

Sample Output 1

2

Explanation 1

Let $x = [0, 1, 1]$. Hence $x_1 + x_3 = x_2$, and the total number of stones picked is **2**.