

Pulkit's Dilemma

Online shopping website "Slipkart", which is offering a deal on books. The description of the deal is, for each book, one needs to pay exact amount written on it, and one can take one more book of amount strictly lesser as a gift. Pulkit being the geekiest guy, would like to take all the books available on the Website. For this, he needs your help to calculate the minimum amount of money he needs to pay to get all the books availing this offer.

Input

First line - n (number of books)

Second line - n positive integers i.e. cost of i th book

Output

Minimum amount of money.

Example

input :

3

1 2 3

output :

4

(He can buy the book of cost 3 and get the book with cost 2 as a gift. Then he buys the book of cost 1)

Constraints

$1 \leq n \leq 10^5$

$1 \leq \text{cost of any book} \leq 10^9$

Time Limit: 1 sec

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