STUDENT REPORT

DETAILS

Name

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Roll Number

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EXPERIMENT

Title

MINIMUM ARRAY SUM

Description

Paul is given an array A of length N. He must perform the following Operations on the array sequentially:

** Choose any two integers from the array and calculate their average.*

** If an element is less than the average, update it to 0. However, if the element is greater than or equal to the average, he need not update it.*

Your task is to help Paul find and return an integer value, representing the minimum possible sum of all the elements in the array by performing the above operations.

***Note**: An exact average should be calculated, even if it results in a decimal.*

Input Format:

***input1**: An integer value N, representing the size of the array A.*

***input2:** An integer array A.*

Output Format:

Return an integer value, representing the minimum possible sum of all the elements in the array by

Sample Input

```
5
1 2 3 4 5
```

Sample Output

```
5
```

Source Code:

```
def min_sum(arr):
    arr.sort(reverse=True)
    total = arr[0]
    avg = arr[0]

    for i in range(1, len(arr)):
        if arr[i] < avg:
            break
        total += arr[i]
        avg = (total) / (i + 1)

    return total

n = int(input())
arr = list(map(int, input().split()))

result = min_sum(arr)
print(result)
```

RESULT

5 / 5 Test Cases Passed | 100 %