Logo

STUDENT REPORT

DETAILS

Name

M ADITYA

Roll Number

TEMPBTech-ECE021

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_possible_sum(A):
    # Sort the array
    A.sort()

    # Initialize sum
    sum_elements = sum(A)

    # Iterate over the sorted elements
    for i in range(len(A)):
        for j in range(i + 1, len(A)):
            avg = (A[i] + A[j]) / 2
            # Check if the smaller element can be set to 0
            if A[i] < avg:
                sum_elements -= A[i]  # Remove A[i] from the sum
                break  # No need to continue if we set A[i] to 0

    return sum_elements

# Example usage
A = [3, 1, 2, 5]
print(min_possible_sum(A))  # Output the minimum possible sum
```

RESULT

1 / 5 Test Cases Passed | 20 %