

Mini Max Sum

Problem

Submissions

Leaderboard

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HackerRank

Prepare > Algorithms > Warmup > Mini-Max Sum

Given five positive integers, find the minimum and maximum values that can be calculated by summing exactly four of the five integers. Then print the respective minimum and maximum values as a single line of two space-separated long integers.

Example

$arr = [1, 3, 5, 7, 9]$

The minimum sum is $1 + 3 + 5 + 7 = 16$ and the maximum sum is $3 + 5 + 7 + 9 = 24$. The function prints

16 24

Function Description

Complete the miniMaxSum function in the editor below.

miniMaxSum has the following parameter(s):

- arr: an array of 5 integers

Print

Print two space-separated integers on one line: the minimum sum and the maximum sum of 4 of 5 elements.

Input Format

A single line of five space-separated integers.

Constraints

$1 \leq arr[i] \leq 10^9$

Output Format

Print two space-separated long integers denoting the respective minimum and

37

Line: 56 Col: 1

Upload Code as File

Test against custom input

Run Code

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Congratulations

You solved this challenge. Would you like to challenge your friends?

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Next Challenge

Test case 0

Compiler Message

Success

Test case 1

Test case 2

Test case 3

Test case 4

Test case 5

Test case 6

Input (stdin)

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Expected Output

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1 10 14

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Next Challenge

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/* The function accepts INTEGER_ARRAY arr as parameter. */

public static void miniMaxSum(List<Integer> arr) {

long min = 0;

long max = 0;

Collections.sort(arr);

for (int i = 1; i < arr.size(); i++){

if (i < 5){

max += arr.get(i);

}

}

for (int i = 0; i < arr.size() - 1; i++){

min += arr.get(i);

}

System.out.print(min + " " + max);

}

}

Time and Space complexity:

The time complexity is determined by the sorting method used to sort the list, and the time complexity for a quick sort like this is $O(n \log n)$, the for loops have a constraint, with it being no more than 5, since it only goes through a constant amounts of iteration the time complexity for this is $O(1)$. Same can be said for the other for loop since it goes up to `arr.size - 1` always, it has a constant time complexity as well. The overall time complexity of this code is denoted by the quick sort method used to sort the arrays as it dominates over the other two time complexities.

The Time complexity is $O(n \log n)$

The space complexity is determined by the size of the input, and since the size of the input is not affected by the variables the code has, its space complexity remains constant. The space complexity for this code is $O(1)$.