

Minimum Average of Smallest and Largest Elements - LeetCode

笔记本: leetcode  
创建时间: 2024/9/23 16:35  
URL: https://leetcode.com/problems/minimum-average-of-smallest-and-largest-elements/

3194. Minimum Average of Smallest and Largest Elements

You have an array of floating point numbers `averages` which is initially empty. You are given an array `nums` of `n` integers where `n` is even.

You repeat the following procedure  $n / 2$  times:

- Remove the **smallest** element, `minElement`, and the **largest** element `maxElement`, from `nums`.
- Add  $(minElement + maxElement) / 2$  to `averages`.

Return the **minimum** element in `averages`.

Example 1:

Input: `nums = [7,8,3,4,15,13,4,1]`

Output: 5.5

Explanation:

step	nums	averages
0	[7,8,3,4,15,13,4,1]	[]
1	[7,8,3,4,13,4]	[8]
2	[7,8,4,4]	[8,8]
3	[7,4]	[8,8,6]
4	[]	[8,8,6,5.5]

The smallest element of `averages`, 5.5, is returned.

Example 2:

Input: `nums = [1,9,8,3,10,5]`

Output: 5.5

Explanation:

step	nums	averages
0	[1,9,8,3,10,5]	[]
1	[9,8,3,5]	[5.5]
2	[8,5]	[5.5,6]
3	[]	[5.5,6,6.5]

Example 3:

Input: `nums = [1,2,3,7,8,9]`

Output: 5.0

Explanation:

step	nums	averages
0	[1,2,3,7,8,9]	[]
1	[2,3,7,8]	[5]

2	[3,7]	[5,5]
3	[]	[5,5,5]

**Constraints:**

- `2 <= n == nums.length <= 50`
- `n` is even.
- `1 <= nums[i] <= 50`