

1877. Minimize Maximum Pair Sum in Array

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The **pair sum** of a pair (a,b) is equal to a + b. The **maximum pair sum** is the largest **pair sum** in a list of pairs.

- For example, if we have pairs (1,5) , (2,3) , and (4,4) , the **maximum pair sum** would be  $\max(1+5, 2+3, 4+4) = \max(6, 5, 8) = 8$ .

Given an array `nums` of **even** length `n` , pair up the elements of `nums` into `n / 2` pairs such that:

- Each element of `nums` is in **exactly one** pair, and
- The **maximum pair sum** is **minimized**.

User Accepted:	6136
User Tried:	6309
Total Accepted:	6240
Total Submissions:	8022
Difficulty:	Medium

Return the minimized **maximum pair sum** after optimally pairing up the elements.

Example 1:

**Input:** `nums = [3,5,2,3]`  
**Output:** 7  
**Explanation:** The elements can be paired up into pairs (3,3) and (5,2).  
The maximum pair sum is  $\max(3+3, 5+2) = \max(6, 7) = 7$ .

Example 2:

**Input:** `nums = [3,5,4,2,4,6]`  
**Output:** 8  
**Explanation:** The elements can be paired up into pairs (3,5), (4,4), and (6,2).  
The maximum pair sum is  $\max(3+5, 4+4, 6+2) = \max(8, 8, 8) = 8$ .

Constraints:

- `n == nums.length`
- `2 <= n <= 105`
- `n` is **even**.
- `1 <= nums[i] <= 105`

Discuss (https://leetcode.com/problems/minimize-maximum-pair-sum-in-array/discuss)

Java

```
1 class Solution {
2     public int minPairSum(int[] nums) {
3
4     }
5 }
```