

5755. 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**.

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

User Accepted:	9
User Tried:	12
Total Accepted:	9
Total Submissions:	12
Difficulty:	Medium

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`

JavaScript

📄

↺

⚙️

```
1 const mx = Math.max;
2 const stin = (a) => a.sort((x, y) => x - y);
3 const minPairSum = (a) => {
4   stin(a);
5   let res = 0;
6   let n = a.length;
7   for (let i = 0; i < n; i++) {
8     let sum = a[i] + a[n - 1 - i];
9     res = mx(res, sum);
10  }
11  return res;
12 };
```

☐ Custom Testcase

Use Example Testcases

Run

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Submission Result: **Accepted** (/submissions/detail/499897050/) ?

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