

# 1877. Minimize Maximum Pair Sum in Array

## Description

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*.

### 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`

