**Array Partition I**

<https://leetcode.com/explore/learn/card/array-and-string/205/array-two-pointer-technique/1154/>

Given an integer array nums of 2n integers, group these integers into n pairs (a1, b1), (a2, b2), ..., (an, bn) such that the sum of min(ai, bi) for all i is **maximized**. Return*the maximized sum*.

**Example 1:**

**Input:** nums = [1,4,3,2]

**Output:** 4

**Explanation:** All possible pairings (ignoring the ordering of elements) are:

1. (1, 4), (2, 3) -> min(1, 4) + min(2, 3) = 1 + 2 = 3

2. (1, 3), (2, 4) -> min(1, 3) + min(2, 4) = 1 + 2 = 3

3. (1, 2), (3, 4) -> min(1, 2) + min(3, 4) = 1 + 3 = 4

So the maximum possible sum is 4.

**Example 2:**

**Input:** nums = [6,2,6,5,1,2]

**Output:** 9

**Explanation:** The optimal pairing is (2, 1), (2, 5), (6, 6). min(2, 1) + min(2, 5) + min(6, 6) = 1 + 2 + 6 = 9.

**Constraints:**

* 1 <= n <= 104
* nums.length == 2 \* n
* -104 <= nums[i] <= 104