

561. Array Partition

Solved ✓

Easy Topics Companies Hint

Given an integer array `nums` of $2n$ integers, group these integers into n pairs $(a_1, b_1), (a_2, b_2), \dots, (a_n, b_n)$ such that the sum of $\min(a_i, b_i)$ 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. $(1, 4), (2, 3) \rightarrow \min(1, 4) + \min(2, 3) = 1 + 2 = 3$
2. $(1, 3), (2, 4) \rightarrow \min(1, 3) + \min(2, 4) = 1 + 2 = 3$
3. $(1, 2), (3, 4) \rightarrow \min(1, 2) + \min(3, 4) = 1 + 3 = 4$

So the maximum possible sum is 4.

Example 2:

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

Output: 9

Explanation: The optimal pairing is $(2, 1), (2,$

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</> Code

C Auto

```
1 #include <stdio.h>
2 #include <stdlib.h>
3
4 int compare(const void *a, const void *b) {
5     return (*(int*)a - *(int*)b);
6 }
7
8 int arrayPairSum(int* nums, int numsSize) {
9
10     qsort(nums, numsSize, sizeof(int), compare);
11
12     int max_sum = 0;
13     for (int i = 0; i < numsSize; i += 2) {
14         max_sum += nums[i];
15     }
16
17     return max_sum;
18 }
19
```

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• Case 1 • Case 2

Input