

# Problem 2815: Max Pair Sum in an Array

## Problem Information

**Difficulty:** Easy

**Acceptance Rate:** 59.94%

**Paid Only:** No

**Tags:** Array, Hash Table

## Problem Description

You are given an integer array `nums`. You have to find the **maximum** sum of a pair of numbers from `nums` such that the **largest digit** in both numbers is equal.

For example, 2373 is made up of three distinct digits: 2, 3, and 7, where 7 is the largest among them.

Return the **maximum** sum or -1 if no such pair exists.

**Example 1:**

**Input:** `nums = [112,131,411]`

**Output:** -1

**Explanation:**

Each numbers largest digit in order is [2,3,4].

**Example 2:**

**Input:** `nums = [2536,1613,3366,162]`

**Output:** 5902

**Explanation:**

All the numbers have 6 as their largest digit, so the answer is  $2536 + 3366 = 5902$ .

**\*\*Example 3:\*\***

**\*\*Input:\*\*** nums = [51,71,17,24,42]

**\*\*Output:\*\*** 88

**\*\*Explanation:\*\***

Each number's largest digit in order is [5,7,7,4,4].

So we have only two possible pairs,  $71 + 17 = 88$  and  $24 + 42 = 66$ .

**\*\*Constraints:\*\***

$2 \leq \text{nums.length} \leq 100$   $1 \leq \text{nums}[i] \leq 104$

## Code Snippets

**C++:**

```
class Solution {
public:
    int maxSum(vector<int>& nums) {

    }
};
```

**Java:**

```
class Solution {
    public int maxSum(int[] nums) {

    }
}
```

**Python3:**

```
class Solution:  
    def maxSum(self, nums: List[int]) -> int:
```