3153. Sum of Digit Differences of All Pairs

Solved ●

Medium 🏷 Topics 🏢 Companies 💡 Hint

You are given an array `nums` consisting of **positive** integers where all integers have the **same** number of digits.

The **digit difference** between two integers is the *count* of different digits that are in the **same** position in the two integers.

Return the **sum** of the **digit differences** between **all** pairs of integers in `nums`.

Example 1:

> **Input:** nums = [13,23,12]
>
> **Output:** 4
>
> **Explanation:**
> We have the following:
> - The digit difference between **1**3 and **2**3 is 1.
> - The digit difference between 1**3** and 1**2** is 1.
> - The digit difference between **23** and **12** is 2.
> So the total sum of digit differences between all pairs of integers is `1 + 1 + 2 = 4`.

Example 2:

> **Input:** nums = [10,10,10,10]
>
> **Output:** 0
>
> **Explanation:**
> All the integers in the array are the same. So the total sum of digit differences between all pairs of integers will be 0.

Constraints:

- `2 <= nums.length <= 10^5`
- `1 <= nums[i] < 10^9`
- All integers in `nums` have the same number of digits.

Seen this question in a real interview before?   1/5

Yes   No

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