2121. Intervals Between Identical Elements

Description

You are given a **0-indexed** array of n integers arr.

The **interval** between two elements in <code>arr</code> is defined as the **absolute difference** between their indices. More formally, the **interval** between <code>arr[i]</code> and <code>arr[j]</code> is <code>li - jl</code>.

Return an array intervals of length in where intervals[i] is the sum of intervals between arr[i] and each element in arr with the same value as arr[i].

Note: |x| is the absolute value of |x|.

Example 1:

```
Input: arr = [2,1,3,1,2,3,3]
Output: [4,2,7,2,4,4,5]
Explanation:
- Index 0: Another 2 is found at index 4. |0 - 4| = 4
- Index 1: Another 1 is found at index 3. |1 - 3| = 2
- Index 2: Two more 3s are found at indices 5 and 6. |2 - 5| + |2 - 6| = 7
- Index 3: Another 1 is found at index 1. |3 - 1| = 2
- Index 4: Another 2 is found at index 0. |4 - 0| = 4
- Index 5: Two more 3s are found at indices 2 and 6. |5 - 2| + |5 - 6| = 4
- Index 6: Two more 3s are found at indices 2 and 5. |6 - 2| + |6 - 5| = 5
```

Example 2:

```
Input: arr = [10,5,10,10]
Output: [5,0,3,4]
Explanation:

- Index 0: Two more 10s are found at indices 2 and 3. |0-2|+|0-3|=5

- Index 1: There is only one 5 in the array, so its sum of intervals to identical elements is 0.

- Index 2: Two more 10s are found at indices 0 and 3. |2-0|+|2-3|=3

- Index 3: Two more 10s are found at indices 0 and 2. |3-0|+|3-2|=4
```

Constraints:

- n == arr.length
- 1 <= n <= 10^{5}
- 1 <= arr[i] <= 10⁵