1865. Finding Pairs With a Certain Sum

Description

You are given two integer arrays `nums1` and `nums2`. You are tasked to implement a data structure that supports queries of two types:

1. **Add** a positive integer to an element of a given index in the array `nums2`.
2. **Count** the number of pairs `(i, j)` such that `nums1[i] + nums2[j]` equals a given value (`0 <= i < nums1.length` and `0 <= j < nums2.length`).

Implement the `FindSumPairs` class:

- `FindSumPairs(int[] nums1, int[] nums2)` Initializes the `FindSumPairs` object with two integer arrays `nums1` and `nums2`.
- `void add(int index, int val)` Adds `val` to `nums2[index]`, i.e., apply `nums2[index] += val`.
- `int count(int tot)` Returns the number of pairs `(i, j)` such that `nums1[i] + nums2[j] == tot`.

Example 1:

```
 Input
["FindSumPairs", "count", "add", "count", "count", "add", "add", "count"]
[[[1, 1, 2, 2, 2, 3], [1, 4, 5, 2, 5, 4]], [7], [3, 2], [8], [4], [0, 1], [1, 1], [7]]
 Output
[null, 8, null, 2, 1, null, null, 11]

 Explanation
FindSumPairs findSumPairs = new FindSumPairs([1, 1, 2, 2, 2, 3], [1, 4, 5, 2, 5, 4]);
findSumPairs.count(7);  // return 8; pairs (2,2), (3,2), (4,2), (2,4), (3,4), (4,4) make 2 + 5 and pairs (5,1), (5,5) make 3 + 4
findSumPairs.add(3, 2); // now nums2 = [1,4,5, 4 ,5,4 ]
findSumPairs.count(8);  // return 2; pairs (5,2), (5,4) make 3 + 5
findSumPairs.count(4);  // return 1; pair (5,0) makes 3 + 1
findSumPairs.add(0, 1); // now nums2 = [ 2 ,4,5,4 ,5,4 ]
findSumPairs.add(1, 1); // now nums2 = [ 2 , 5 ,5,4 ,5,4 ]
findSumPairs.count(7);  // return 11; pairs (2,1), (2,2), (2,4), (3,1), (3,2), (3,4), (4,1), (4,2), (4,4) make 2 + 5 and pairs (5,3), (5,5) make 3 +
4
```

Constraints:

- `1 <= nums1.length <= 1000`
- `1 <= nums2.length <= 10^5`
- `1 <= nums1[i] <= 10^9`
- `1 <= nums2[i] <= 10^5`
- `0 <= index < nums2.length`
- `1 <= val <= 10^5`
- `1 <= tot <= 10^9`
- At most `1000` calls are made to `add` and `count` **each**.