2333. Minimum Sum of Squared Difference

Description

You are given two positive **0-indexed** integer arrays `nums1` and `nums2`, both of length `n`.

The **sum of squared difference** of arrays `nums1` and `nums2` is defined as the **sum** of `(nums1[i] - nums2[i])`^{2} for each `0 <= i < n`.

You are also given two positive integers `k1` and `k2`. You can modify any of the elements of `nums1` by `+1` or `-1` at most `k1` times. Similarly, you can modify any of the elements of `nums2` by `+1` or `-1` at most `k2` times.

Return *the minimum **sum of squared difference** after modifying array* `nums1` *at most* `k1` *times and modifying array* `nums2` *at most* `k2` *times*.

Note: You are allowed to modify the array elements to become **negative** integers.

Example 1:

```
Input: nums1 = [1,2,3,4], nums2 = [2,10,20,19], k1 = 0, k2 = 0
Output: 579
Explanation: The elements in nums1 and nums2 cannot be modified because k1 = 0 and k2 = 0.
The sum of square difference will be: (1 - 2)^2 + (2 - 10)^2 + (3 - 20)^2 + (4 - 19)^2 = 579.
```

Example 2:

```
Input: nums1 = [1,4,10,12], nums2 = [5,8,6,9], k1 = 1, k2 = 1
Output: 43
Explanation: One way to obtain the minimum sum of square difference is:
- Increase nums1[0] once.
- Increase nums2[2] once.
The minimum of the sum of square difference will be:
(2 - 5)^2 + (4 - 8)^2 + (10 - 7)^2 + (12 - 9)^2 = 43.
Note that, there are other ways to obtain the minimum of the sum of square difference, but there is no way to obtain a sum smaller than 43.
```

Constraints:

- `n == nums1.length == nums2.length`
- `1 <= n <= 10`^{5}
- `0 <= nums1[i], nums2[i] <= 10`^{5}
- `0 <= k1, k2 <= 10`^{9}