

# Problem 2006: Count Number of Pairs With Absolute Difference K

## Problem Information

**Difficulty:** Easy

**Acceptance Rate:** 85.19%

**Paid Only:** No

**Tags:** Array, Hash Table, Counting

## Problem Description

Given an integer array `nums` and an integer `k`, return \_the number of pairs\_ `(i, j)` \_where\_ `i < j` \_such that\_ `|nums[i] - nums[j]| == k`.

The value of `|x|` is defined as:

\* `x` if `x >= 0`.  
\* `-x` if `x < 0`.

**Example 1:**

**Input:** nums = [1,2,2,1], k = 1  
**Output:** 4  
**Explanation:** The pairs with an absolute difference of 1 are: - [\*\*\_1\_\*\* , \*\*\_2\_\*\* ,2,1] - [\*\*\_1\_\*\* ,2,\*\*\_2\_\*\* ,1] - [1,\*\*\_2\_\*\* ,2,\*\*\_1\_\*\*] - [1,2,\*\*\_2\_\*\* ,\*\*\_1\_\*\*]

**Example 2:**

**Input:** nums = [1,3], k = 3  
**Output:** 0  
**Explanation:** There are no pairs with an absolute difference of 3.

**Example 3:**

**Input:** nums = [3,2,1,5,4], k = 2  
**Output:** 3  
**Explanation:** The pairs with an absolute difference of 2 are: - [\*\*\_3\_\*\* ,2,\*\*\_1\_\*\* ,5,4] - [\*\*\_3\_\*\* ,2,1,\*\*\_5\_\*\* ,4] - [3,\*\*\_2\_\*\* ,1,5,\*\*\_4\_\*\*]

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

\* `1 <= nums.length <= 200` \* `1 <= nums[i] <= 100` \* `1 <= k <= 99`

## Code Snippets

**C++:**

```
class Solution {
public:
    int countKDifference(vector<int>& nums, int k) {
        }
};
```

**Java:**

```
class Solution {
    public int countKDifference(int[] nums, int k) {
        }
}
```

**Python3:**

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