

# 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), (2, 1), (1, 2)]`.

**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, 1), (1, 5), (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:
```