

6248. Count Subarrays With Median K

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You are given an array `nums` of size `n` consisting of **distinct** integers from `1` to `n` and a positive integer `k`.

Return the number of non-empty subarrays in `nums` that have a **median** equal to `k`.

Note:

- The median of an array is the **middle** element after sorting the array in **ascending** order. If the array is of even length, the median is the **left** middle element.
 - For example, the median of `[2,3,1,4]` is `2`, and the median of `[8,4,3,5,1]` is `4`.
- A subarray is a contiguous part of an array.

User Accepted:	1
User Tried:	3
Total Accepted:	1
Total Submissions:	3
Difficulty:	Hard

Example 1:

Input: `nums = [3,2,1,4,5]`, `k = 4`
Output: `3`
Explanation: The subarrays that have a median equal to `4` are: `[4]`, `[4,5]` and `[1,4,5]`.

Example 2:

Input: `nums = [2,3,1]`, `k = 3`
Output: `1`
Explanation: `[3]` is the only subarray that has a median equal to `3`.

Constraints:

- `n == nums.length`
- `1 <= n <= 105`
- `1 <= nums[i], k <= n`
- The integers in `nums` are distinct.

JavaScript

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⚙️

```
1 const countSubarrays = (a, k) => permutationArrayWithMedianK(a, k);
2
3 const permutationArrayWithMedianK = (a, k) => {
4   let m = new Map([[0, 1]]), find = false, cnt = 0, res = 0;
5   for (const x of a) {
6     if (x < k) {
7       cnt--;
8     } else if (x > k) {
9       cnt++;
10    } else {
11      find = true;
12    }
13    if (find) {
14      res += (m.get(cnt) || 0) + (m.get(cnt - 1) || 0);
15    } else {
16      m.set(cnt, m.get(cnt) + 1 || 1);
17    }
18  }
19  return res;
20 };
```

☐ Custom Testcase

Use Example Testcases


Submission Result: **Accepted** (/submissions/detail/850473792/) ⓘ More Details ➤ (/submissions/detail/850473792/)

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