

2444. Count Subarrays With Fixed Bounds

Given: an integer array 'nums'

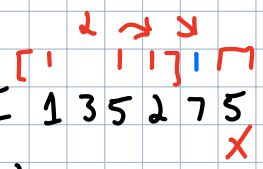
Given: an integer 'minK'

Given: an integer 'maxK'

A fixed bound subarray of 'nums' is a subarray that satisfies the following conditions:

- The minimum value in the subarray equals 'minK'
- The maximum value in the subarray equals 'maxK'

Return: the number of fixed bound subarrays.

Ex.  nums = [1 3 5 2 7 5], minK = 1, maxK = 5
Output: 2

Thoughts:

- Any value $< \text{minK}$ or $> \text{maxK}$ is a barrier.

enable-if-t *Iter == T::type

```
template < typename Iter, typename T >
```

```
auto findValidRanges( Iter begin, Iter end, T minK, T maxK ) {
```

```
    int result{0}; bool hasMinK{0}; bool hasMaxK{0};
```

```
    auto start { begin };
```

```
    while ( begin < end ) {
```

```
        if ( *begin > maxK || *begin < minK ) {
```

```
            start = begin + 1; hasMinK = false; hasMaxK = false;
```

12 10 | 1 2 3 4 min 3 4 5 max 7 8 | 14 2 6



$$4 + 2 + 1$$

$$(begin - right) * (left - front)$$

$$3 * 4 = 12$$

x x x x x x x x x

$$4 + 4$$

std::distance(front, left)
 + std::distance(back, right)
 + (std::distance(front, left) *
 std::distance(back, right))
 + 1

1
 x x x n n x

1 1

$$3 + 3$$

$$4 * 2 = 8$$

$$(1 + 1 + 1) + (1 * 1)$$

x n n x

