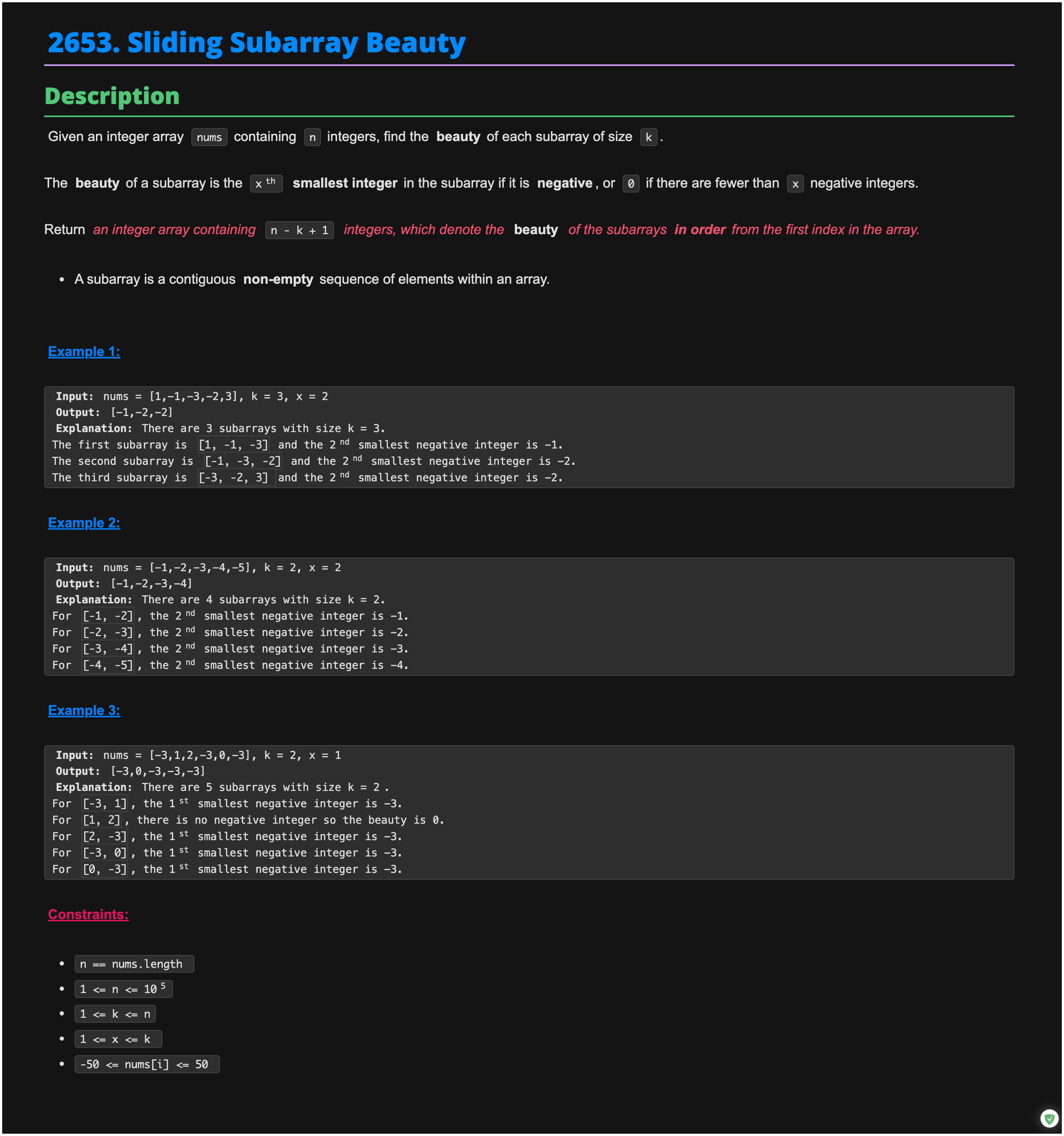

2653. Sliding Subarray Beauty

Description

Given an integer array `nums` containing `n` integers, find the **beauty** of each subarray of size `k`.

The **beauty** of a subarray is the `x`th **smallest integer** in the subarray if it is **negative**, or `0` if there are fewer than `x` negative integers.

Return *an integer array containing* `n - k + 1` *integers, which denote the* **beauty** *of the subarrays* ***in order*** *from the first index in the array.*

- A subarray is a contiguous **non-empty** sequence of elements within an array.

Example 1:

```
Input: nums = [1,-1,-3,-2,3], k = 3, x = 2
Output: [-1,-2,-2]
Explanation: There are 3 subarrays with size k = 3.
The first subarray is [1, -1, -3] and the 2nd smallest negative integer is -1.
The second subarray is [-1, -3, -2] and the 2nd smallest negative integer is -2.
The third subarray is [-3, -2, 3] and the 2nd smallest negative integer is -2.
```

Example 2:

```
Input: nums = [-1,-2,-3,-4,-5], k = 2, x = 2
Output: [-1,-2,-3,-4]
Explanation: There are 4 subarrays with size k = 2.
For [-1, -2], the 2nd smallest negative integer is -1.
For [-2, -3], the 2nd smallest negative integer is -2.
For [-3, -4], the 2nd smallest negative integer is -3.
For [-4, -5], the 2nd smallest negative integer is -4.
```

Example 3:

```
Input: nums = [-3,1,2,-3,0,-3], k = 2, x = 1
Output: [-3,0,-3,-3,-3]
Explanation: There are 5 subarrays with size k = 2.
For [-3, 1], the 1st smallest negative integer is -3.
For [1, 2], there is no negative integer so the beauty is 0.
For [2, -3], the 1st smallest negative integer is -3.
For [-3, 0], the 1st smallest negative integer is -3.
For [0, -3], the 1st smallest negative integer is -3.
```

Constraints:

- `n == nums.length`
- $1 <= n <= 10^5$
- `1 <= k <= n`
- `1 <= x <= k`
- `-50 <= nums[i] <= 50`