2340. Minimum Adjacent Swaps to Make a Valid Array

Description

You are given a **0-indexed** integer array nums.

Swaps of adjacent elements are able to be performed on nums.

A **valid** array meets the following conditions:

- The largest element (any of the largest elements if there are multiple) is at the rightmost position in the array.
- The smallest element (any of the smallest elements if there are multiple) is at the leftmost position in the array.

Return the *minimum* swaps required to make nums a valid array.

Example 1:

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Input: nums = [3,4,5,5,3,1]
Output: 6
Explanation: Perform the following swaps:
- Swap 1: Swap the 3 rd and 4 th elements, nums is then [3,4,5,3,1].
- Swap 2: Swap the 4 th and 5 th elements, nums is then [3,4,5,3,1,5].
- Swap 3: Swap the 3 rd and 4 th elements, nums is then [3,4,5,1,3,5].
- Swap 4: Swap the 2 nd and 3 rd elements, nums is then [3,4,1,5,3,5].
- Swap 5: Swap the 1 st and 2 nd elements, nums is then [3, 1, 4,5,3,5].
- Swap 6: Swap the 0 th and 1 st elements, nums is then [1, 3,4,5,3,5].
It can be shown that 6 swaps is the minimum swaps required to make a valid array.
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Example 2:

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Input: nums = [9]
Output: 0
Explanation: The array is already valid, so we return 0.
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Constraints:

- 1 <= nums.length <= 10 ⁵
- $1 \leftarrow nums[i] \leftarrow 10^5$