You are given an array of integers nums, there is a sliding window of size k which is moving from the very left of the array to the very right. You can only see the k numbers in the window. Each time the sliding window moves right by one position.

Return *the max sliding window*.

**Example 1:**

Input: nums = [1,3,-1,-3,5,3,6,7], k = 3  
Output: [3,3,5,5,6,7]  
Explanation:   
Window position Max  
--------------- -----  
[1 3 -1] -3 5 3 6 7 3  
 1 [3 -1 -3] 5 3 6 7 3  
 1 3 [-1 -3 5] 3 6 7 5  
 1 3 -1 [-3 5 3] 6 7 5  
 1 3 -1 -3 [5 3 6] 7 6  
 1 3 -1 -3 5 [3 6 7] 7

**Example 2:**

Input: nums = [1], k = 1  
Output: [1]

**Constraints:**

* 1 <= nums.length <= 105
* -104 <= nums[i] <= 104
* 1 <= k <= nums.length