

Problem: Sliding Window Maximum(Leet Code)

Link: <https://leetcode.com/problems/sliding-window-maximum/submissions/1758372898/>

Code:

```
import java.util.*;

class Solution {
    public int[] maxSlidingWindow(int[] nums, int k) {
        Deque<Integer> dq = new ArrayDeque<>();
        int n = nums.length;
        int[] res = new int[n - k + 1];
        int idx = 0;

        for (int i = 0; i < n; i++) {
            if (!dq.isEmpty() && dq.peekFirst() == i - k) dq.pollFirst();
            while (!dq.isEmpty() && nums[dq.peekLast()] < nums[i])
                dq.pollLast();
            dq.offerLast(i);
            if (i >= k - 1) res[idx++] = nums[dq.peekFirst()];
        }

        return res;
    }
}
```