

503. Next Greater Element II

Given a circular integer array `nums` (i.e., the next element of `nums[nums.length - 1]` is `nums[0]`), return the next greater number for every element in `nums`.

The next greater number of a number `x` is the first greater number to its traversing-order next in the array, which means you could search circularly to find its next greater number. If it doesn't exist, return `-1` for this number.

Example 1:

- **Input:** `nums = [1,2,1]`
- **Output:** `[2,-1,2]`
- **Explanation:** The first `1`'s next greater number is `2`;
 - The number `2` can't find next greater number.
 - The second `1`'s next greater number needs to search circularly, which is also `2`.

Example 2:

- **Input:** `nums = [1,2,3,4,3]`
- **Output:** `[2,3,4,-1,4]`

Constraints:

- $1 \leq \text{nums.length} \leq 10^4$
- $-10^9 \leq \text{nums}[i] \leq 10^9$