

Problem 503: Next Greater Element II

Problem Information

Difficulty: Medium

Acceptance Rate: 67.45%

Paid Only: No

Tags: Array, Stack, Monotonic Stack

Problem Description

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 <= nums.length <= 104` * `-109 <= nums[i] <= 109`

Code Snippets

C++:

```
class Solution {  
public:  
vector<int> nextGreaterElements(vector<int>& nums) {  
  
}  
};
```

Java:

```
class Solution {  
public int[] nextGreaterElements(int[] nums) {  
  
}  
}
```

Python3:

```
class Solution:  
def nextGreaterElements(self, nums: List[int]) -> List[int]:
```