# 654. Maximum Binary Tree

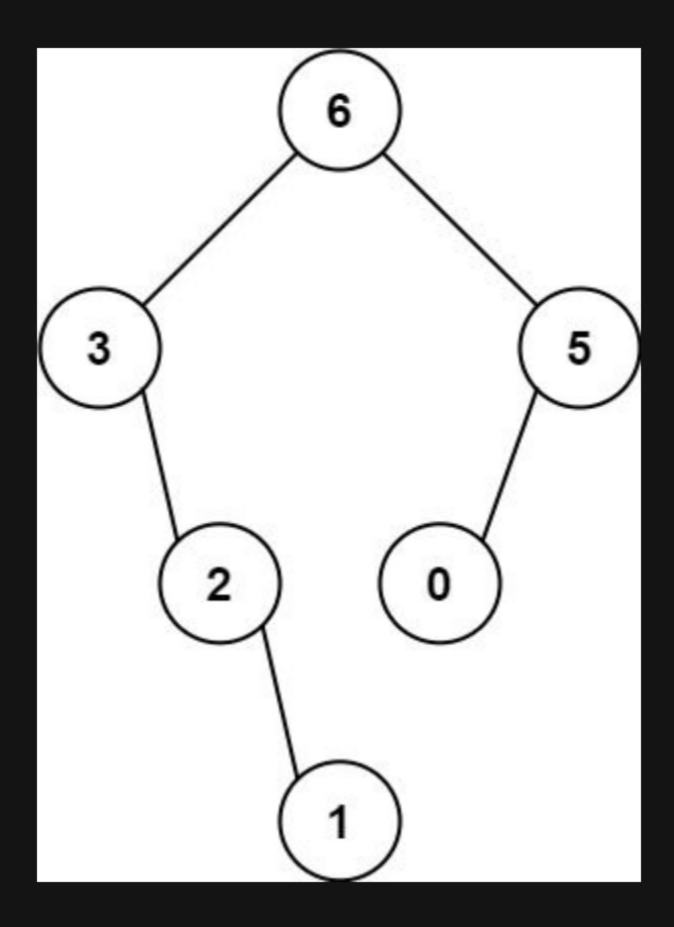
## Description

You are given an integer array nums with no duplicates. A maximum binary tree can be built recursively from nums using the following algorithm:

- 1. Create a root node whose value is the maximum value in nums.
- 2. Recursively build the left subtree on the subarray prefix to the left of the maximum value.
- 3. Recursively build the right subtree on the subarray suffix to the right of the maximum value.

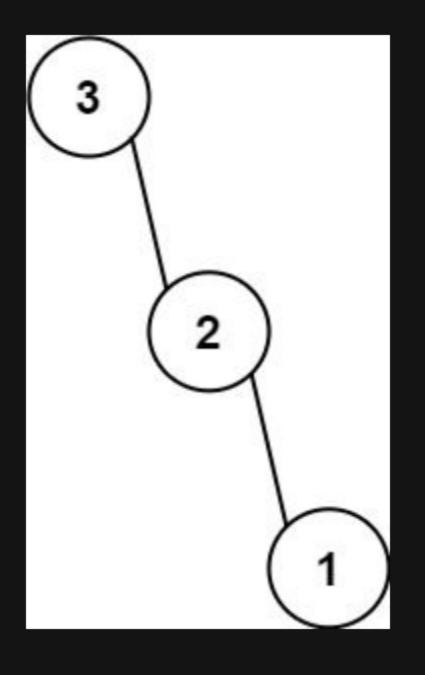
Return the maximum binary tree built from nums.

#### Example 1:



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Input: nums = [3,2,1,6,0,5]
Output: [6,3,5,null,2,0,null,null,1]
Explanation: The recursive calls are as follow:
- The largest value in [3,2,1,6,0,5] is 6. Left prefix is [3,2,1] and right suffix is [0,5].
- The largest value in [3,2,1] is 3. Left prefix is [] and right suffix is [2,1].
- Empty array, so no child.
- The largest value in [2,1] is 2. Left prefix is [] and right suffix is [1].
- Empty array, so no child.
- Only one element, so child is a node with value 1.
- The largest value in [0,5] is 5. Left prefix is [0] and right suffix is [].
- Only one element, so child is a node with value 0.
- Empty array, so no child.
```

## Example 2:



Input: nums = [3,2,1]
Output: [3,null,2,null,1]

### **Constraints:**

- 1 <= nums.length <= 1000
- 0 <= nums[i] <= 1000
- All integers in nums are unique.