Given an integer array nums, return *the length of the longest* ***strictly increasing***

***subsequence***

.

**Example 1:**

Input: nums = [10,9,2,5,3,7,101,18]  
Output: 4  
Explanation: The longest increasing subsequence is [2,3,7,101], therefore the length is 4.

**Example 2:**

Input: nums = [0,1,0,3,2,3]  
Output: 4

**Example 3:**

Input: nums = [7,7,7,7,7,7,7]  
Output: 1

**Constraints:**

* 1 <= nums.length <= 2500
* -104 <= nums[i] <= 104

**Follow up:** Can you come up with an algorithm that runs in O(n log(n)) time complexity?