Given an unsorted array of integers nums, return *the length of the longest consecutive elements sequence.*

You must write an algorithm that runs in O(n) time.

**Example 1:**

Input: nums = [100,4,200,1,3,2]  
Output: 4  
Explanation: The longest consecutive elements sequence is [1, 2, 3, 4]. Therefore its length is 4.

**Example 2:**

Input: nums = [0,3,7,2,5,8,4,6,0,1]  
Output: 9

**Constraints:**

* 0 <= nums.length <= 105
* -109 <= nums[i] <= 109