

@LeetCode

Given an unsorted array of integers, find the length of longest increasing subsequence.

**Example:**

**Input:** [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.

**Note:**

- There may be more than one LIS combination, it is only necessary for you to return the length.
- Your algorithm should run in  $O(n^2)$  complexity.

**Follow up:** Could you improve it to  $O(n \log n)$  time complexity?