

Homework 05: Longest Consecutive Sequence

Due Tuesday, November 14th, 2017

Instruction

Submit your answer to this question via PC² under your account by the posted due time. No late submissions will be accepted. Note that homework is opened-book, but no outside assistance is permitted.

Problem

Given an unsorted array of integers, find the length of the longest consecutive elements sequence. For instance, given a list [100, 4, 200, 1, 3, 2], return the length is 4 since its longest consecutive sequence is [1, 2, 3, 4]. [Warning: Input Data is pretty big so design a faster algorithm (at least $O(n \log n)$ complexity)]

Sample input

3 4 2 1 5

2 3 2 3 1

Sample output

5

3