

CS9 Coding Drill: January 28, 2015

Name: _____

This coding drill is designed to help you review searching, sorting, and hashing, three techniques that tend to come up frequently in coding interviews.

Problem One: Code the Mode!

In a language of your choice, write a method that accepts as input an array of elements and then returns the most-frequently-occurring element in that array. Then, analyze the big-O time and space complexity of your code.

Problem Two: Home on the Range

In a language of your choice, write a function that accepts as input an array of integers and then returns the length of the longest consecutive range of integers that appear somewhere in that array. For example, given the input array

[16, 6, 12, 5, 4, 10, 2, 11, 13, 3, 15]

the longest consecutive range of integers that appears is 2, 3, 4, 5, 6 so your function should return 6. Given the input array

[11, 21, 27, 9, 7, 17, 24, 1, 14, 6, 4]

the longest consecutive range of integers that appears is 6, 7, so your function should return 2. As with the first coding drill, analyze the big-O time and space complexity of your solution.