Lab 1

Question # 1:

https://leetcode.com/problems/maximum-product-of-two-elements-in-an-array/

Question # 2:

https://leetcode.com/problems/find-peak-element/

Question # 3:

https://leetcode.com/problems/binary-search/

Question # 4:

<https://leetcode.com/problems/first-bad-version/>

lab 2

Question # 1:

https://leetcode.com/problems/baseball-game/

Question # 2:

https://leetcode.com/problems/asteroid-collision/

Question # 3:

https://leetcode.com/problems/time-needed-to-buy-tickets/

Question # 4:

https://leetcode.com/problems/number-of-recent-calls/submissions/

Question # 5:

https://leetcode.com/problems/number-of-students-unable-to-eat-lunch/submissions/

Question # 6:

https://leetcode.com/problems/basic-calculator-ii/

Reading Activity: https://en.wikipedia.org/wiki/Shunting\_yard\_algorithm

Question # 7:

<https://leetcode.com/problems/jump-game-vi/>

lab 3

Question # 1:

https://leetcode.com/problems/root-equals-sum-of-children/

Question # 2:

https://leetcode.com/problems/sum-of-left-leaves/

Question # 3:

https://leetcode.com/problems/binary-tree-level-order-traversal/

Question # 4:

https://leetcode.com/problems/average-of-levels-in-binary-tree/

Question # 5:

https://leetcode.com/problems/cousins-in-binary-tree/

Question # 6:

https://leetcode.com/problems/maximum-depth-of-binary-tree/

Question # 7:

https://leetcode.com/problems/populating-next-right-pointers-in-each-node/

Question # 8:

<https://leetcode.com/problems/find-largest-value-in-each-tree-row/>

lab 4

Problem # 1:

https://leetcode.com/problems/search-in-a-binary-search-tree/

Problem # 2:

https://leetcode.com/problems/insert-into-a-binary-search-tree/

Problem # 3:

https://leetcode.com/problems/delete-node-in-a-bst/

Problem # 4:

https://leetcode.com/problems/find-mode-in-binary-search-tree/

Problem # 5:

https://leetcode.com/problems/minimum-absolute-difference-in-bst/description/

Problem # 6:

https://leetcode.com/problems/two-sum-iv-input-is-a-bst/description/

Problem # 7:

<https://leetcode.com/problems/validate-binary-search-tree/>

lab 5

Problem # 1:

https://leetcode.com/problems/balanced-binary-tree/

Problem # 2:

https://leetcode.com/problems/insert-into-a-binary-search-tree/description/

Problem # 3:

https://leetcode.com/problems/balance-a-binary-search-tree/

Problem # 4:

https://leetcode.com/problems/convert-sorted-array-to-binary-search-tree/

Problem # 5:

https://leetcode.com/problems/convert-sorted-list-to-binary-search-tree/

Problem # 6:

<https://leetcode.com/problems/construct-binary-tree-from-preorder-and-inorder-traversal/>

lab 6

Problem 1:

https://leetcode.com/problems/relative-ranks/

Problem 2:

https://leetcode.com/problems/last-stone-weight/

Problem 3:

https://leetcode.com/problems/kth-largest-element-in-an-array/

Problem 4:

https://leetcode.com/problems/top-k-frequent-elements/

Problem 5:

https://leetcode.com/problems/car-pooling/description/

Problem 6:

<https://leetcode.com/problems/design-a-food-rating-system/>

lab 7

Problem 1:

https://leetcode.com/problems/distribute-candies/

Problem 2:

https://leetcode.com/problems/ransom-note/

Problem 3:

https://leetcode.com/problems/set-mismatch/

Problem 4:

https://leetcode.com/problems/letter-combinations-of-a-phone-number/

Problem 5:

https://leetcode.com/problems/repeated-dna-sequences/

Problem 6:

https://leetcode.com/problems/employee-importance/

Problem 7:

<https://leetcode.com/problems/group-anagrams/>

lab 9

Problem 1:

https://leetcode.com/problems/average-salary-excluding-the-minimum-and-maximum-salary

/

Requirement: Do it with bubble Sort

Problem 2:

https://leetcode.com/problems/sort-the-people/

Requirement: Do it with Insertion Sort

Problem 3:

https://leetcode.com/problems/assign-cookies/

Requirement: Do it with Insertion Sort

Problem 4:

https://leetcode.com/problems/maximum-units-on-a-truck/

Requirement: Do it with Selection Sort

Problem 5:

https://leetcode.com/problems/insertion-sort-list/

Problem 6:

https://leetcode.com/problems/most-profit-assigning-work/

Problem 7:

<https://leetcode.com/problems/boats-to-save-people/>

lab 10

Problem 1:

https://leetcode.com/problems/kth-largest-element-in-an-array/

Note: Solve it with Quick Sort

Problem 2:

https://leetcode.com/problems/move-zeroes/

Problem 3:

https://leetcode.com/problems/sort-array-by-parity/

Problem 4:

https://leetcode.com/problems/merge-two-sorted-lists/

Problem 5:

https://leetcode.com/problems/sort-an-array/

Note: Do it with heap Sort.

Problem 6:

https://leetcode.com/problems/sort-colors/

Problem 7:

<https://leetcode.com/problems/partition-array-according-to-given-pivot/>

lab 11

Problem 1:

https://leetcode.com/problems/squares-of-a-sorted-array/

Note: From problem 2 to onwards use any sorting algorithm that you have studied so far.

Problem 2:

https://leetcode.com/problems/matrix-cells-in-distance-order/

Problem 3:

https://leetcode.com/problems/sort-characters-by-frequency/

Problem 4:

https://leetcode.com/problems/top-k-frequent-words/

Problem 5:

https://leetcode.com/problems/reveal-cards-in-increasing-order/

Problem 6:

https://leetcode.com/problems/query-kth-smallest-trimmed-number/

Problem 7:

<https://leetcode.com/problems/find-players-with-zero-or-one-losses/>

lab 12

lab 13

<https://leetcode.com/problems/find-the-town-judge/>  
<https://leetcode.com/problems/find-center-of-star-graph/>  
<https://leetcode.com/problems/find-if-path-exists-in-graph/>  
<https://leetcode.com/problems/keys-and-rooms/>  
<https://leetcode.com/problems/all-paths-from-source-to-target/>  
<https://leetcode.com/problems/find-all-possible-recipes-from-given-supplies/>

lab 14

Problem 1:

https://leetcode.com/problems/redundant-connection/

Problem 2:

https://leetcode.com/problems/course-schedule/

Problem 3:

https://leetcode.com/problems/min-cost-to-connect-all-points/