

Problem: Two Sum
Link: https://leetcode.com/problems/two-sum/submissions/1658886358
Level: Easy
My approach: Using the one pass solution since there are no duplicate values and a guaranteed solution exists.
What I learned: This function is more efficient than the Brute Force in this problem, as it iterates through the list only once $O(n)$. Brute Force would $O(n^2)$, therefore less efficient.

Problem: Group Anagrams
Link: https://leetcode.com/problems/group-anagrams/submissions/1679409624
Level: Medium
My approach: Use HashMaps method.
What I learned: Group words with the same letters together by using the ASCII values.

Problem: Contains Duplicate
Link: https://leetcode.com/problems/contains-duplicate/submissions/1660032933
Level: Easy
My approach: Use a 'for loop' to filter through the values.
What I learned: This is a great method to use to find unique values and only add those to a list.

Problem: Binary Search
Link: https://leetcode.com/problems/binary-search/submissions/1660586862
Level: Easy
My approach: Use the Binary Search Algorithm.
What I learned: This algorithm halves the search space every iteration and saves so much time (using $O(\log n)$).

Problem: K Closest Points to Origin
Link: https://leetcode.com/problems/k-closest-points-to-origin/submissions/1660652412
Level: Medium
My approach: Using heap/ priority queue
What I learned: I learned how to add a third number to a point and how to place it first in a list. Building the heaps will mean a time complexity of $O(n)$ and extracting k points from the heap would mean a time complexity of $O(k \log n)$. This would mean a total of $O(n + k \log n)$.

Problem: Kth Largest Element in an Array
Link: https://leetcode.com/problems/kth-largest-element-in-an-array/submissions/1662011579
Level: Medium
My approach: Use the minheap approach
What I learned: Using the minheap method will allow us to push the smallest value at the top and keep pushing it out as we enter new/higher values. This gets done until we reach the k -th value and find our answer.

Problem: Top K Frequent Elements
Link: https://leetcode.com/problems/top-k-frequent-elements/submissions/1662136162
Level: Medium
My approach: Use buckets and import 'Counter'.
What I learned: Add values to a flattened list, avoid nested lists.

Problem: Maximum Subarray
Link: https://leetcode.com/problems/maximum-subarray/submissions/1664956801
Level: Medium
My approach: Reset the running sum if it becomes negative
What I learned: How to take a list of integers and return an integer (max subarray sum).

Problem: Valid Parenthesis
Link: https://leetcode.com/problems/valid-parentheses/submissions/1680457024
Level: Easy
My approach: Use the stack method
What I learned: Store it for later if it's an opening bracket. If it's a closing bracket, it should match the most recent opening bracket. Initialize what an opener and a closer is, so you can refer back to it later in your code.

Problem: Permutations
Link: https://leetcode.com/problems/permutations/submissions/1667599175
Level: Medium
My approach: Iterative approach
What I learned: Remember to make a copy to avoid modifying the original.

Problem: Daily Temperatures
Link: https://leetcode.com/problems/daily-temperatures/submissions/1680721569
Level: Medium
My approach: Using stacking
What I learned: The stack stores indices, not values.

Problem: Subset
Link: https://leetcode.com/problems/subsets/submissions/1668082918
Level: Medium
My approach: using Depth-First Search (DFS) with backtracking.
What I learned: Using DFS to include and exclude the current number. Backtrack to undo choices and explore all paths.

Problem: 3Sum
Link: https://leetcode.com/problems/3sum/submissions/1669428308
Level: Medium
My approach: Sorting and using two pointers (left and right).
What I learned: Since the list is sorted, remember to check for duplicate values next to one another so that the same values are not used multiple times.

Problem: 3Sum Closest
Link: https://leetcode.com/problems/3sum-closest/submissions/1669741663
Level: Medium
My approach: Sorting and using two pointers (left and right).
What I learned: Keep track of the closest sum found so far. We don't store all combinations so there is no need to skip duplicates. Exit early if the total is equal to the target.

Problem: Two Sum II
Link: https://leetcode.com/problems/two-sum-ii-input-array-is-sorted/submissions/1669794675
Level: Medium
My approach: Use two pointers
What I learned: A linear approach is good to use since we know that a solution exists. Brute force can work but is unnecessary.

Problem: Contains Duplicate II
Link: https://leetcode.com/problems/contains-duplicate-ii/submissions/1669835499
Level: Easy
My approach: Use a sliding window
What I learned: Stop as soon as a condition is met and keep the window size at most k.

Problem: Maximum count of positive and negative integer
Link: https://leetcode.com/problems/maximum-count-of-positive-integer-and-negative-integer/submissions/1670480686
Level: Easy
My approach: Binary search
What I learned: 'Self' is just a variable name, but has special meaning because of convention.

Problem: Count negative numbers in a sorted matrix
Link: https://leetcode.com/problems/count-negative-numbers-in-a-sorted-matrix/submissions/1670508891
Level: Easy
My approach: Two pointer from top right.
What I learned: How to work with two pointer in a matrix.

Problem: Maximum sum of distinct subarrays with length K
Link: https://leetcode.com/problems/maximum-sum-of-distinct-subarrays-with-length-k/submissions/1671670481
Level: Medium
My approach: Sliding window
What I learned: Keep moving the window to determine current sum

Problem: Minimum size subarray sum
Link: https://leetcode.com/problems/minimum-size-subarray-sum/submissions/1673786769
Level: Medium
My approach: Sliding window
What I learned: Use sliding window to determine the subarray sum.

Problem: Valid palindrome
Link: https://leetcode.com/problems/valid-palindrome/submissions/1676063052
Level: Easy
My approach: Two pointers
What I learned: Moving the pointer left or right depending on the expected outcome

Problem: Remove duplicates from sorted array
Link: https://leetcode.com/problems/remove-duplicates-from-sorted-array/submissions/1676086378
Level: Easy
My approach: Two pointers
What I learned: The array already being sorted helps a lot

Problem: Container with most water
Link: https://leetcode.com/problems/container-with-most-water/submissions/1676122578
Level: Medium
My approach: Two pointers
What I learned: Moving the pointer left or right depending on the expected outcome

Problem: Trapping rain water
Link: https://leetcode.com/problems/trapping-rain-water/submissions/1676262081
Level: Hard
My approach: Two pointers
What I learned: Moving the pointer left or right depending on the expected outcome

Problem: Linked list cycle
Link: https://leetcode.com/problems/linked-list-cycle/submissions/1676428351
Level: Easy
My approach: Floyd's Tortoise and Hare (fast and slow approach)
What I learned: Learning how two pointers can move at different paces

Problem: Middle of the linked list
Link: https://leetcode.com/problems/middle-of-the-linked-list/submissions/1676448819
Level: Easy
My approach: Slow and fast pointers
What I learned: Learning how two pointers can move at different paces

Problem: Longest consecutive sequence
Link: https://leetcode.com/problems/longest-consecutive-sequence/submissions/1679449841
Level: Medium
My approach: Use a hashset.
What I learned: Iterate through the set, not the initial list. This saves time as there are no duplicates.

Problem: Number of ways to buy pens and pencils
Link: https://leetcode.com/problems/number-of-ways-to-buy-pens-and-pencils/submissions/1679655784
Level: Medium
My approach: Use the Brute Force method
What I learned: Don't forget to add +1 for pencils at the end so that you can include the option of zero pencils.

Problem: Count integers with even digit sum

Link: <https://leetcode.com/problems/count-integers-with-even-digit-sum/submissions/1679672990>

Level: Easy

My approach: Convert integers to strings so that you can add the digits to each other.

What I learned: It can be easier to count in certain situations if you are working with strings

Problem: Sum of digits of string after convert

Link: <https://leetcode.com/problems/sum-of-digits-of-string-after-convert/submissions/1679683342>

Level: Easy

My approach: Convert strings to integers and integers to strings.

What I learned: It can be easier to count in certain situations if you are working with strings

Problem: Next greater element

Link: <https://leetcode.com/problems/next-greater-element-i/submissions/1682438084>

Level: Easy

My approach: Monotonic stack

What I learned: Using a stack as a temporary list can be very helpful

Problem: Evaluate revers polish notation
Link: https://leetcode.com/problems/evaluate-reverse-polish-notation/submissions/1682464404
Level: Medium
My approach: Monotonic stack
What I learned: Using a stack as a temporary list can be very helpful

Problem: Minimum value to get positive step by step sum
Link: https://leetcode.com/problems/minimum-value-to-get-positive-step-by-step-sum/submissions/1685129298
Level: Easy
My approach: Store a prefix sum
What I learned: Find the lowest value so that you can determine the minimum value you need to have to get at least a value of 1(non-negative number).

Problem: Subsets II
Link: https://leetcode.com/problems/subsets-ii/submissions/1686191216
Level: Medium
My approach: Use backtracking.
What I learned: Sort the arrays so that you don't have any duplicates.

Problem: Permutations
Link: https://leetcode.com/problems/permutations/submissions/1686206365
Level: Medium
My approach: Backtracking
What I learned: This approach contains duplicates

Problem: Combination sum
Link: https://leetcode.com/problems/combination-sum/submissions/1686248213
Level: Medium
My approach: Backtracking
What I learned: For 'don't use', don't put in i+1, we can use the same value over and over again.