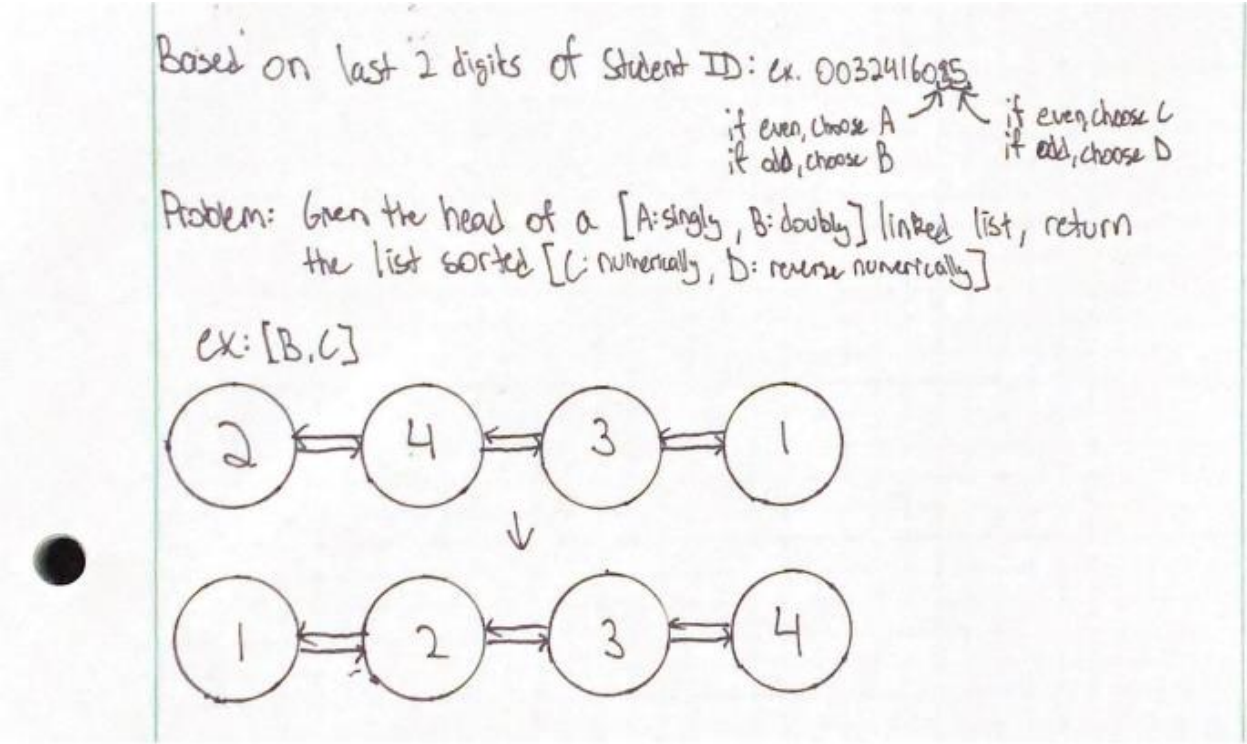
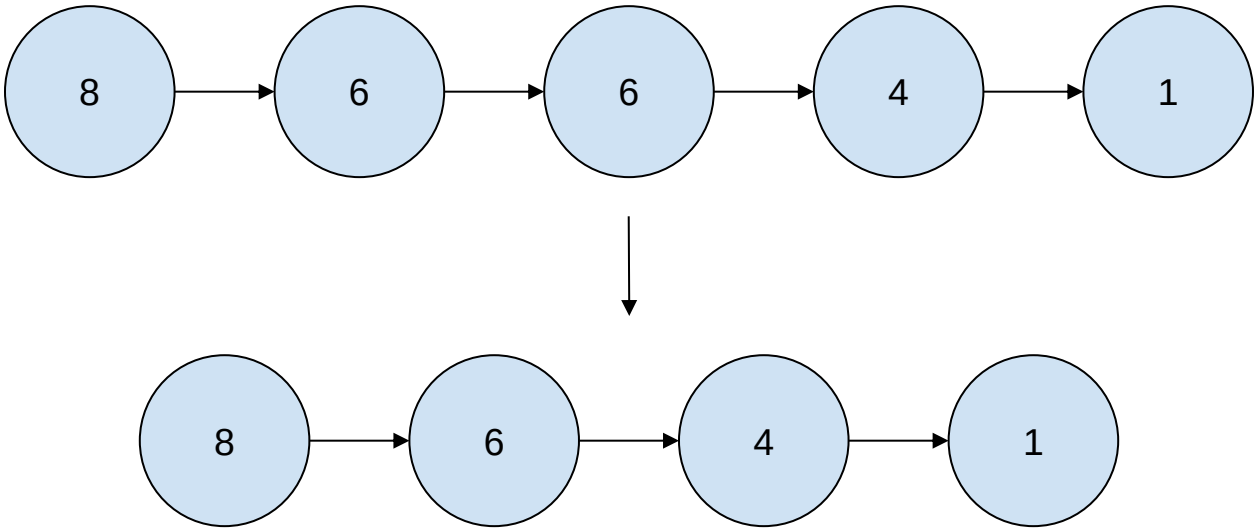
Data Structures



https://leetcode.com/problems/remove-duplicates-from-sorted-list/

Given a linked list storing one digit per node sorted from greatest to least, remove all duplicate value nodes from the list



https://leetcode.com/problems/valid-parentheses/

https://leetcode.com/problems/two-sum/

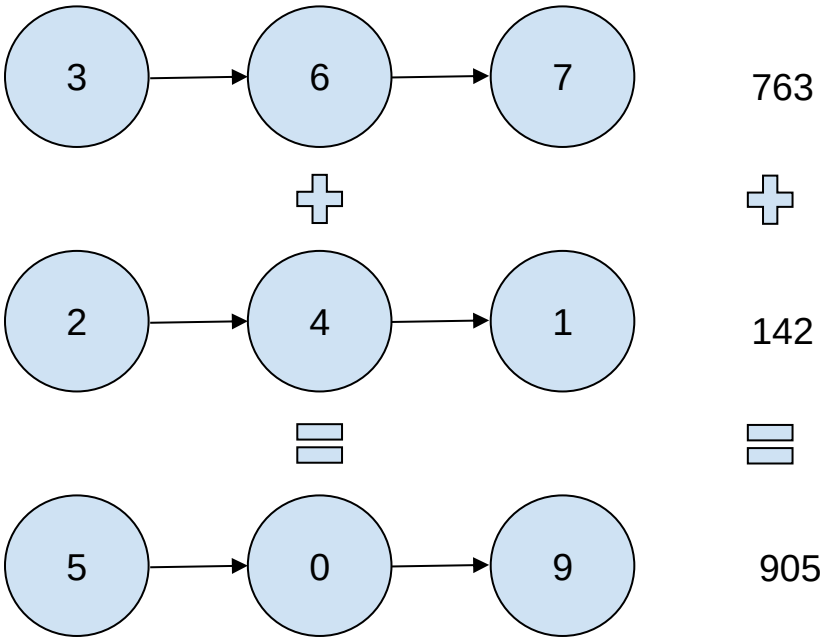
https://leetcode.com/problems/best-time-to-buy-and-sell-stock/

Given an array representing the daily price of a digital asset in USD, find the most profitable buy/sell days, and return the value of this profit. If no profitable transactions are possible, return 0.

Ex.

[3, 5, 1, 7, 9, 2] -> Buy on day 3, sell on day 5, Profit = $9 - $1 = $8
[6, 4, 4, 3, 2, 1] -> No profitable transactions, return 0

https://leetcode.com/problems/add-two-numbers/
Given two linked lists representing two positive integers in reverse order (ex. One's place -> ten's place -> hundred's place) where each node stores a single digit, return the sum of these two integers as a linked list.



Graph/ BST Coding Questions

1) Perform preorder traversal in a given binary tree?
2) Perform an inorder traversal in a given binary tree?
3) Implement a postorder traversal algorithm?
4) Count the number of leaf nodes in a given binary tree.
5) Find a height of a given binary tree
6) Merge two binary trees
7) Perform DFS on an acyclic graph
8) Perform BFS on an acyclic graph

MULTIPLE CHOICE QUESTIONS(OOP)

1. Which of following is shared structure of a set of similar objects
   a) Encapsulation
   b) A Class
   c) Inheritance
   d) None of Above

2. In oops public, private & protected are
   a) Classes
   b) Access Modifiers
   c) Interfaces
   d) Method signature

3. Constructor can return a value
   a) True
   b) False

4. Which Feature of OOP encourages code reusability?
   a) Polymorphism
   b) Inheritance
   c) Abstraction
   d) Encapsulation

5. A(n) _____ method is declared, but not implemented.
   a) Private
   b) Public
   c) Abstract

d) Getter

6. A derived class is also called a _____.

a) Small class
b) Subclass
c) Noticeable class
d) Big class

7. A method implemented several times to accept different parameters is considered to be _____.

a) Overridden
b) Redundant
c) Restructured
d) Overloaded

8. A default catch block catches

a) all thrown objects
b) no thrown objects
c) any thrown object that has not been caught by an earlier catch block
d) all thrown objects that have been caught by an earlier catch block