CSI 202 - Review Sheet #3

-Algorithm Analysis of algorithms below

-Binary Search Tree - BST Trees

-AVL Trees
  -Definition
  -Advantages/Disadvantages: insert O(n log n) , search O(log n)
  -Rotations
  -definition, related functions in code
  -rules to insertion
  -bottom-up approach

-Red-Black Trees
  -Definition
  -Advantages/Disadvantages: insert O(n log n) , search O(log n)
  -Rotations
  -definition in code
  -rules to insertion
  -top-down approach

Sample questions:
 Insert the following numbers into AVL, Red-Black, BST
 Compare the balance of the following trees
 Is the following tree AVL-balanced? Explain.
 Is the following a valid Red-Black tree? Explain.
 What is the worst-case order of searching AVL trees? Red-Black trees? BST?
 Describe similarities/differences of Red-Black and AVL.
 What is the significance of balanced, AVL, Red-Black, BST?