0. MinVL Trees
Draw an AVL tree of height 4 that contains the minimum possible number of nodes.

1. AVL Trees
Insert 6, 5, 4, 3, 2, 1, 10, 9, 8, 7 into an initially empty AVL Tree.

2. AVL Trees
Given a binary search tree, describe how you could convert it into an AVL tree with worst-case time $O(n \log(n))$. What is the best case runtime of your algorithm?

3. HeapVL Trees
Is there an AVL Tree that isn’t a binary min heap? Is there a binary min heap that isn’t an AVL tree? Is there a binary search tree that is neither? Is there a binary search tree that is both?

4. B-Trees
(a) Insert the following into an empty B-Tree with $M = 3$ and $L = 3$: 12, 24, 36, 17, 18, 5, 22, 20.

(b) Delete 17, 12, 22, 5, 36

(c) Given the following parameters for a B-Tree with $M = 11$ and $L = 8$
   - Key Size = 10 bytes
   - Pointer Size = 2 bytes
   - Key/Value pair Size = 16 bytes per record

   Assuming that M and L were chosen appropriately, what is the likely disk block size on the machine where this implementation will be deployed? Give a numeric answer and a short justification based on two equations using the parameter values above.