DSA Assignment-3
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Q1)
   (a) No
   (b) Yes
   (c) Yes
   (d) Yes
   (e) No

Pseudo Code for (b)
buildTree(inorder, preorder):
   if inorder:
      root <- TreeNode(preorder.pop(0))
      root_index <- inorder.index(root.val)
      root.left <- buildTree(inorder[:root_index], preorder)
      root.right <- buildTree(inorder[root_index+1:], preorder)
      return root

Pseudo Code for (c)
buildTree(inorder, levelOrder):
         if inorder:
         for i in range(0, len(levelOrder)):
         if levelOrder[i] in inorder:
               root <- TreeNode(levelOrder[i])
               root_index <- inorder.index(root.val)
               root.left <- buildTree(inorder[:root_index], levelOrder)
               root.right <- buildTree(inorder[root_index+1:], levelOrder)
               return root

Pseudo Code for (d)
buildTree(inorder, postorder):
   if inorder:
      root <- TreeNode(postorder.pop())
      root_index <- inorder.index(root.val)
      root.right <- buildTree(inorder[root_index+1:], postorder)
      root.left <- buildTree(inorder[:root_index], postorder)
      return root