Worksheet CS165: Binary Search Trees

1. Stepwise build a BST from 30, 20, 100, 10, 40, 5, 25, 50, 35

2. Give the pre-order, in, and post order traversal of the tree

3. Using "System.out.println(node.getItem());" for a visit, implement post-order traversal

   ```java
   public void postorderTraverse(TreeNode node){
   }
   ```
3. Show how the breadth first traversal of the above tree is implemented using a queue:

<table>
<thead>
<tr>
<th>Queue</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Init</td>
<td>[30]</td>
</tr>
</tbody>
</table>

4. The above tree is a binary search tree (BST). Redraw the above BST after 95 is added and 30 is deleted. Show both possible results.