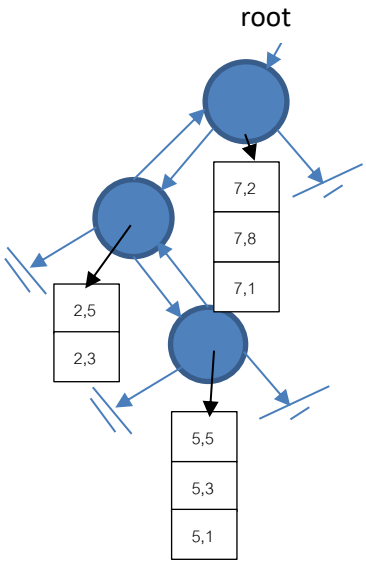
Tree (20 marks)

Copy all files in folder "Hw09" to project "src" folder.

- You are NOT allowed to modify other existing methods.
  - You are allowed to create new method(s). (You won't need to).

You are given class BSTNodeList and BSTList. They construct a binary search tree whose node contains an arraylist of Pairdata (Pairdata is also given). An example tree is shown below:



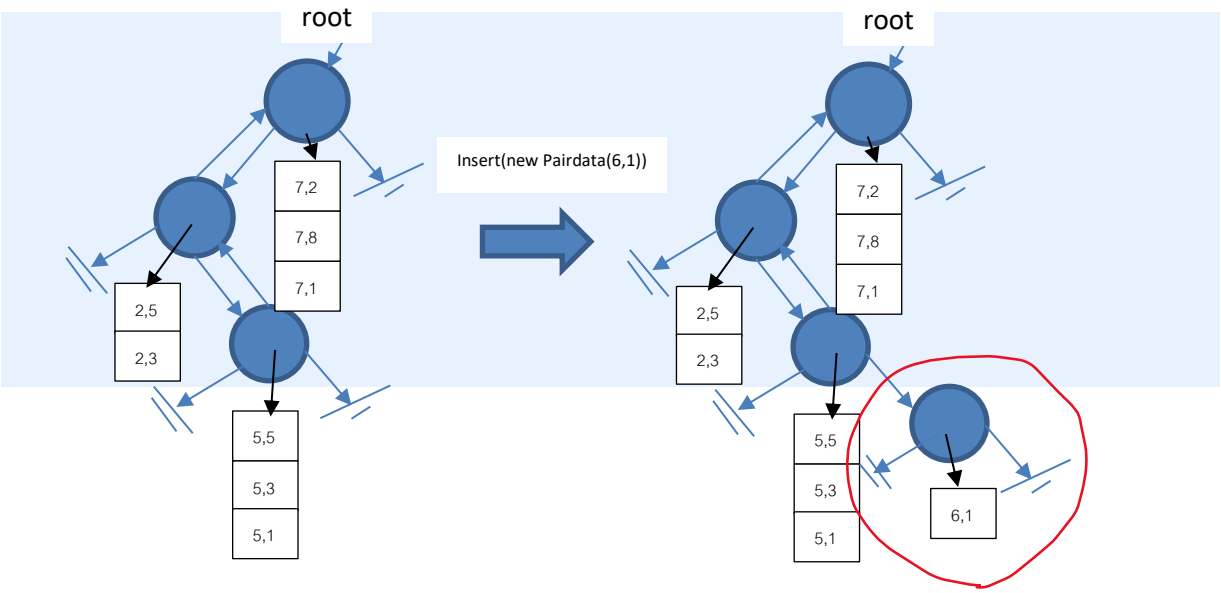
Write code for the following methods of class BSTList:

```
public BSTNodeList find(Comparable v)
```

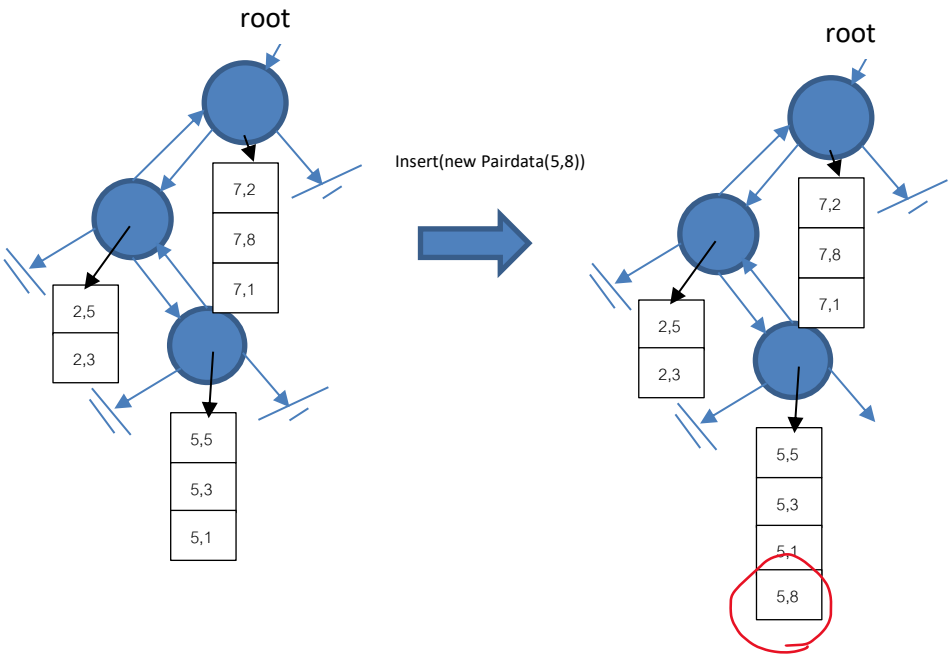
- This method tests whether v is in the tree (v is a Pairdata).
- If v is in the tree, return the node of the tree that contains it.
- Otherwise, return null;

```
public BSTNodeList insert(Comparable v)
```

- This method adds v to the binary search tree. Return the node that stores v after the add.
- If the first value of v is not in any stored pair, add v to the new node and add this new node to the tree.



- If the first value of v is in a stored pair (or pairs), but v is not, add v to the arraylist that stores such pair(s).



- Otherwise, leave the tree unchanged.

The JUnit tests are in BSTListTest.java

- `testfind1()` 8 marks
- `testfind2()` 1 mark
- `testfind3()` 1 mark
- `testinsert1()` 4 marks
- `testinsert2()` 1 mark
- `testinsert3()` 5 marks

How to submit.

Submit ONLY BSTList.java in your assignment.