Practice-It and Trees

1. Given a BinaryTree class that uses our standard TreeNodes, write an instance method that counts and returns the number of nodes in the tree. Your solution needs to be recursive.

public int size()

{

1. Practice-It uses their own classes, specifically IntTreeNode. All you need to know about IntTreeNode are its **public** **fields**: public int data;

public IntTreeNode left;

public IntTreeNode right;

You also need to know about the static **class field** overallRoot

Here is Practice-It’s solution for the problem above, taken from BJP5 Self-Check 17.11: size

public int size()

{

return size( overallRoot );

}

public int size( IntTreeNode current )

{

if( current == null )

return 0;

else

return 1 + size(current.left) + size(current.right);

}

If Practice-It! requires you to "throw an exception" use code like this:    
          if( n <= 0 ) throw new IllegalArgumentException();

Your assignment is to solve all the BJP5 Self-checks and BJP5 Exercises 17.1 - 17.6.

Go to the Practice-It website at: <http://practiceit.cs.washington.edu/>

After you log in, click on **Start Practicing!**

Select **Building Java Programs, 5th Edition**

Select **BJP5 Chapter 17: Binary Trees**

Your assignment is to solve all the BJP5 Self-checks and BJP5 Exercises 17.1 - 17.6.

