```java
/**
 * Checks if the given {@code BinaryTree<Integer>} satisfies the heap
 * ordering property according to the <= relation.
 *
 * @param t
 *            the binary tree
 * @return true if the given tree satisfies the heap ordering property;
 *         false otherwise
 * @ensures <pre>
 * satisfiesHeapOrdering = [t satisfies the heap ordering property]
 * </pre>
 */
private static boolean satisfiesHeapOrdering(BinaryTree<Integer> t) {
    boolean check = true;
    if(t.size() > 0){
        Integer lhs = t.newInstance();
        Integer rhs = t.newInstance();
    Integer root = t.disassemble(lhs, rhs);
        if(lhs<root || rhs<root){
        check = false;
        }else if(lhs.size>0){
        check = check && satisfiesHeapOrdering(lhs);
        }if(rhs.size>0){
        check = check && satisfiesHeapOrdering(rhs);
        }
        t.assemble(root,lhs,rhs);
    }
return check;
}
```