HW5 changes

Included in the recent changes to the Graph class are several new methods that serve testing purposes. These methods include numNodes and numEdges, which respectively count the number of nodes and edges in the graph. Additionally, a clear method was added to reset the graph before executing createNewGraph, and a contains method is now available to check if a particular node is present in the graph for path-finding purposes.

In order to improve the efficiency of finding a node's children, the class has also been modified to store edges in a HashMap with String keys and HashSet values. This change replaces the previous implementation that relied on two TreeSets to store nodes and edges. Furthermore, a new method called listChildrenSorted has been added to automatically find the children of a node and sort them in ascending order.

```
/**
        @return: this Graph object's number of Nodes
 */
public int numNodes() {
        return nodes.size();
}
```

```
/**
        @return: this Graph object's number of Edges
 */
public int numEdges() {
        return edges.size();
}
```

```
/**
        @modifies: nodees and edges
        @effects: clears nodes and edges
 */
public void clear() {
        nodes.clear();
        edges.clear();
        checkRep();
}



/**
        @param: a node n to check for in nodes
        @return: true if node n is on the graph, false otherwise
 */
public boolean contains(String n){
        return nodes.contains(n);
}
```