

(c) Bilbo tries the hardMode exercise for lecture 6 and comes up with the following, where a StringNode is defined exactly like an IntNode, but the item field is of type String:

```
/** SentinelSSList: Similar to hardMode exercise but with Strings.
 * @author Bilbo Gargomeal
 */

public class SentinelSSList {
    private StringNode sent;

    public SentinelSSList() {
        sent = new StringNode(null, null);
    }

    public SentinelSSList(String x) {
        sent = new StringNode(x, null);
    }

    public void insertFront(String x) {
        sent.next = new StringNode(x, sent.next);
    }

    public String getFront() {
        if (sent.next == null) return null;
        return sent.next.item;
    }

    public void insertBack(String x) {
        StringNode p = sent;
        while (p.next != null) {
            p = p.next;
        }

        p.next = new StringNode(x, null);
    }
}
```

The code compiles fine but the autograder is giving unhelpful messages about why it isn't working. There is exactly one bug in this code. You want to help Bilbo but don't want to give away the answer. Provide a simple JUnit test below that will fail on Bilbo's code (but would pass on a correct list). For possible partial credit, also explain the bug.

```
@Test
public void testBilboList() {
```