CSC 212 Tutorial # 2 Solutions
Lists

Problem 1

```java
public void reverse() {
        // no need to reverse if the list have one or no elements
        if (head != null && head.next != null) {
                Node<T> p = null, cur = head, q = head.next;
                while (cur != null) {
                        cur.next = p;
                        p = cur;
                        cur = q;
                        if (q != null)
                                q = q.next;
                }
                head = p;
        }
}
```

Problem 2

```java
private static <T> void reverse(LinkedList<T> L) {
        if (!L.empty()) {
                L.findfirst();
                // first we will count the number of elements
                int count = 1;// for the last element
                while (!L.last()) {
                        count++;
                        L.findnext();
                }
                // no need to reverse if the list have one or no elements
                if (count > 1) {
                        T temp1 = null, temp2 = null;
                        L.findfirst();
                        for (int i = 0; i < (count / 2); i++) {
                                temp1 = L.retrieve();
                                for (int j = i; j < count - i - 1; j++)
                                        L.findnext();
                                temp2 = L.retrieve();
                                L.update(temp1);
                                L.findfirst();
                                for (int j = 0; j < i; j++)
                                        L.findnext();
                                L.update(temp2);
                                L.findnext();
                        }
                }
        }
}
```

}