CSE131 Quiz 6
Using Data Structures
October 18, 2007

1. In a concise English sentence, state the purpose of the following method.

```java
LinkedList<Color> foo(LinkedList<Color> ls, Color c) {
    LinkedList<Color> result = new LinkedList<Color>();
    for (Color item : ls)
        if (item.getRed() > c.getRed() &&
            item.getGreen() > c.getGreen() &&
            item.getBlue() > c.getBlue())
            result.add(item);
}
```

The method returns a linked list of those colors from the given list that are brighter than the given color `c` in all three color components.

2. Recall that if `s` is a `String`, then `s.length()` returns the number of characters in `s`.

Using a `for` loop (with the “for each” semantics), write a method with the following specification.

- Parameters: a `LinkedList<String>` `ls` and an int `x`. (Assume that `ls` is not null.)
- Return: The sum of the lengths of the strings in the original list.
- Side effect: All elements whose lengths are divisible by `x` should be removed from the list.

Be sure to modify the given list. Do not create a new one. Use an iterator.

```java
int sum(LinkedList<String> ls, int x) {
    int total = 0;
    Iterator<String> it = ls.iterator();
    while (it.hasNext()) {
        int length = it.next().length();
        total += length;
        if (length % x == 0)
            it.remove();
    }
    return total;
}
```