

# CSC 212 Tutorial #6 Solution

## Stack

### Problem 1

```
public static <T> void replace(Stack<T> st, T e1, T e2) {
    Stack<T> tmp = new LinkedStack<T>();
    T e = null;
    while (!st.empty()) {
        e = st.pop();
        if (e.equals(e1))
            e = e2;
        tmp.push(e);
    }
    while (!tmp.empty())
        st.push(tmp.pop());
}
```

### Problem 2

```
public static <T> void copy(Stack<T> st1, Stack<T> st2) {
    if (st1.empty())
        return;
    T e = st1.pop();
    copyStack(st1, st2);
    st1.push(e);
    st2.push(e);
}
```

### Problem 3

```
public static <T> boolean search(Stack<T> st, T target) {
    if (st.empty())
        return false;
    T e = st.pop();
    boolean found;
    if (e.equals(target))
        found = true;
    else
        found = search(st, target);
    st.push(e);
    return found;
}
```