

Question 6 (5 marks)

Consider the Lock and CombinationLock classes from Question 5.

Suppose that Lock has the following equals method:

```
public class Lock {
    private boolean isLocked;

    @Override
    public boolean equals(Object obj) {
        // STANDARD instanceof-based equals CODE GOES HERE; NOT SHOWN

        Lock other = (Lock) obj;
        return this.isLocked == other.isLocked;
    }
}
```

Suppose that CombinationLock overrides equals as:

```
public class CombinationLock {
    private Combination combo;

    @Override
    public boolean equals(Object obj) {
        // STANDARD instanceof-based equals CODE GOES HERE; NOT SHOWN

        if (!(obj instanceof CombinationLock)) {
            return false;
        }
        CombinationLock other = (CombinationLock) obj;
        return this.isLocked() == other.isLocked() && this.combo.equals(other.combo);
    }
}
```

Explain whether the CombinationLock version of equals is acceptable or not.