Problem statements

Problem statement No : 1

Family Patel is moving from Mumbai to Delhi. They have 20 boxes to move. The insurance cost is calculated by multiplying weight of each box by 2 and by multiplying weight of the heaviest box by 3.5. The weights of boxes are (20,10,5,40,20,41,41,2,6,7,3,4,5,6,23,34,7,8,2,2).Calculate and print insurance cost.

Problem statement No : 2

Input is a string with alphabets e.g. "AABBCCDDAAZZZ" and output should be the alphabet followed by the number of times it appeared (in the sequence as it appeared). So in this case output should be "A4B2C2D2Z2". Other sample input: "ZZZA" and output should be "Z3A1.

Problem statement No : 3

There is a collection of 20 Student objects (class given below). You are supposed to write a method to return Student objects with distinct last names. E.g If Students are John Doe, John Lincoln, Amy Doe, Foo Bar => then output should return Student objects for John Doe, John Lincoln, Foo Bar. You are allowed to change the Student Class.

```
public class Student {
    private String firstName;
    private String lastName;

    public String getFirstName() {
        return firstName;
    }
    public void setFirstName( String firstName ) {
        this.firstName = firstName;
    }
    public String getLastName() {
        return lastName;
    }
    public void setLastName( String lastName ) {
        this.lastName = lastName;
    }
}
```