Written exercises # 8

1) Consider the following classes

```java
public abstract class Vehicle {
    public boolean startEngine() {/* code */ }
    public abstract int getMaxSpeed();
    public abstract double getVehicleValue();
}
public interface Rentable {
    public double getWeeklyRate();
}
public interface UsesPremiumGas {
    public void fillTankWithPremiumGas(double gallons);
}

public class Car extends Vehicle implements Rentable { /*code*/}

public class FancyCar extends Car implements UsesPremiumGas {
    /* code */
}

public class Bus extends Vehicle { /* code */ }
```

Answer the following questions (must means so that the code compiles).

a) Which methods must be implemented in the Car class?

b) Which methods must be implemented in the FancyCar class?

c) Which methods must be implemented in the Bus class?
d) The above classes are used to model a fleet of vehicles owned by a company. Complete the method below that prints the cheapest weekly rate for the vehicles of the fleet that can be rented? In no vehicle can be rented, the method should state so.

```java
/**
 * Prints the cheapest weekly rate available among a fleet of vehicles, or prints that no vehicle can be rented.
 * @param fleet the list of vehicles
 */
public void printCheapestWeeklyRate(ArrayList<Vehicle> fleet) {
```