

Multiple Choice

1. c
2. b
3. d
4. c

Free Response

1. See the class notes for a summary of these different terms.

- 2.

```
public class PersonTester
{
    public static void main(String[] args)
    {
        // Response for part (a)
        Person p = new Person("Ruth", 35);

        // Response for part (b)
        System.out.println("The person's name is " + name);
        System.out.println("and their age is " + age);

        // Response for part (c)
        p.changeName("Rosie");
        p.celebrateBirthday();

        // Response for part (d)
        System.out.println("The person's name now is " + name);
        System.out.println("and their age is " + age);
    }
}
```

3.

```
public class ElectronicBattery
{
    // instance variables

    private double maxHoursOfCharge;
    private double hoursRemaining;

    // constructor

    public ElectronicBattery(double maxHours)
    {
        maxHoursOfCharge = maxHours;
        hoursRemaining = 0;
    }

    // methods

    public double getHoursRemaining()
    {
        return hoursRemaining;
    }

    public void recharge()
    {
        hoursRemaining = maxHoursOfCharge;
    }

    public void useBattery(double hoursUsed)
    {
        if (hoursUsed > hoursRemaining)
        {
            hoursRemaining = 0;
            System.out.println("You used up all the battery!");
        }
        else
        {
            hoursRemaining = hoursRemaining - hoursUsed;
        }
    }
}
```