4. Mini-Test

1. Sensor Framework

A.

a)

```
package ch.ethz.inf.vs.gruntzp.mini_test;

import android.hardware.Sensor;
import android.hardware.SensorManager;
import android.os.Bundle;
import android.support.v7.app.AppCompatActivity;
import android.widget.TextView;

import java.util.List;

public class MainActivity extends AppCompatActivity {

  @Override
  public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

    SensorManager sensorM= (SensorManager) getSystemService(SENSOR_SERVICE);
    List<Sensor> sensorList = sensorM.getSensorList(Sensor.TYPE_ALL);

    String sensorsText = "";
    if (sensorList.size()>0) {
      TextView textView = (TextView) findViewById(R.id.textView);
      Sensor tmp;
      for (int i=0;i<sensorList.size();i++){
        tmp = sensorList.get(i);
        sensorsText = sensorsText + Integer.toString(i+1)+ ". "+tmp.getName() + "\n";
      }
      textView.setText(sensorsText);
    }
  }
}
```

b)

```
public float valueRange(Sensor sensor){
   return sensor.getMaximumRange();
}
```

c)

```
private Sensor sensor;
protected void onResume() {
        super.onResume();
        mSensorManager.registerListener(this, sensor, SensorManager.SENSOR_DELAY_FASTEST);
 }
```

B.

The problem is, that the values (event.values) won't be copied. Therefore, during the log method, the values can be overwritten by another sensor event and can generate inconsistent.

2. Activity Lifestyle

State	**Callback Functions**
Paused	onPause()
Resumed	onResume()
Stopped	onStop()

3. Resources

Strings should be defined in a XML-resource file.
The advantage is that you can easily translate your whole app into another language. Android automatically selects the correct language based on user preferences, and you don't have to worry about selecting and displaying this language.

4. Intents

An intent is a messaging object which you can use for communication between activities. In an explicit Intent you know exactly which component (activity) you want to start. In contrast implicit Intents are used when you don't know which component should be launched and give for example the user at runtime the option to choose between several components.

5. Service Lifecycle

a) False - stopService(new Intent(this, MainService.class)) stops a service

b) True

c) True

d) False

6. Android Manifest file

//TODO