# CORRECTION TD01

| *Classes : DSI3* | *Matière : Développement Mobile* | *Nb pages : 2* |
|---|---|---|
| *Enseignants : S. Hadhri & M. Hadiji & H. Souissi* | | |

## *Exercice1 (Sphère)*

**strings.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<resources>

    <string name="app_name">Sphere</string>
    <string name="action_settings">Settings</string>
    <string name="rayon">Rayon</string>
    <string name="calculer">Calculer</string>
    <string name="aire">Aire</string>
    <string name="volume">Volume</string>
    <string name="massev">Masse Volumique</string>
    <string name="peser">Peser</string>
    <string name="poids">Poids</string>

</resources>
```

**activity_main.xml**

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:layout_alignParentLeft="true"
    android:layout_alignParentTop="true"
    android:layout_marginLeft="10dp"
    android:layout_marginTop="10dp"
    android:orientation="vertical" >

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content" >

        <TextView
            android:id="@+id/textView1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="@string/rayon" />

        <EditText
            android:id="@+id/edRayon"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:ems="10" >

            <requestFocus />
        </EditText>
    </LinearLayout>

    <Button
        android:id="@+id/btnCalculer"
        android:layout_width="fill_parent"
```

```
    android:layout_height="wrap_content"
    android:text="@string/calculer" />

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content" >

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/aire" />

    <EditText
        android:id="@+id/edAire"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:ems="10" />
</LinearLayout>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content" >

    <TextView
        android:id="@+id/textView3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/volume" />

    <EditText
        android:id="@+id/edVolume"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:ems="10" />
</LinearLayout>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content" >

    <TextView
        android:id="@+id/textView4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/massev" />

    <EditText
        android:id="@+id/edMasseV"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:ems="10" />
</LinearLayout>

<Button
    android:id="@+id/btnPeser"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:text="@string/peser" />

<LinearLayout
    android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content" >


        <TextView
            android:id="@+id/textView5"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="@string/poids" />

         <EditText
            android:id="@+id/edPoids"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:ems="10" />
    </LinearLayout>

</LinearLayout>
```

**MainActivity.java**

```
package com.sphere;

import android.app.Activity;
import android.media.MediaRouter.VolumeCallback;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends Activity {
	// attributs
	private EditText edRayon;
	private Button btnCalculer;
	private EditText edAire;
	private EditText edVolume;
	private EditText edMasseV;
	private Button btnPeser;
	private EditText edPoids;

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

	private void init() {
		edRayon = (EditText) findViewById(R.id.edRayon);
		btnCalculer = (Button) findViewById(R.id.btnCalculer);
		edAire = (EditText) findViewById(R.id.edAire);
		edVolume = (EditText) findViewById(R.id.edVolume);
		edMasseV = (EditText) findViewById(R.id.edMasseV);
		btnPeser = (Button) findViewById(R.id.btnPeser);
		edPoids = (EditText) findViewById(R.id.edPoids);
		ajouterEcouteur();

	}
```

```
	private void ajouterEcouteur() {
		btnCalculer.setOnClickListener(new OnClickListener() {

			@Override
			public void onClick(View arg0) {
				calculer();
			}
		});
		btnPeser.setOnClickListener(new OnClickListener() {

			@Override
			public void onClick(View arg0) {
				peser();
			}
		});

	}

	protected void calculer() {
		if(!edRayon.getText().toString().isEmpty()){
			double rayon = Double.parseDouble(edRayon.getText().toString());
			double aire = 4 * Math.PI * Math.pow(rayon, 2);
			edAire.setText(aire + "");
			double volume = 4 * Math.PI * Math.pow(rayon, 3) / 3;
			edVolume.setText(volume + "");
		} else {
			Toast t = Toast.makeText(getApplicationContext(),
					"Tapez un réel dans Rayon SVP!", Toast.LENGTH_LONG);
			t.show();
			edRayon.requestFocus();
		}
	}

	protected void peser() {
		if(!edVolume.getText().toString().isEmpty()
			&& (!edMasseV.getText().toString().isEmpty()){
			double volume = Double.parseDouble(edVolume.getText().toString());
			double masseV = Double.parseDouble(edMasseV.getText().toString());
			double poids = volume * masseV;
			edPoids.setText(poids + "");
		} else {
			Toast t = Toast.makeText(getApplicationContext(),
					"Tapez un réel dans Masse Volumique SVP!",
					Toast.LENGTH_LONG);
			t.show();
			edMasseV.requestFocus();
		}
	}

}
```