Program 3. Create an android application to find the factorial of a given number.

Activity main.xml

</LinearLayout>

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  android:layout_width="fill_parent"
  android:layout height="fill parent"
  android:background="#3779A5"
  android:orientation="vertical"
  android:weightSum="1">
  <LinearLayout
    android:id="@+id/linearLayout1"
    android:layout width="match parent"
    android:layout_height="wrap_content"
    android:layout_marginLeft="10pt"
    android:layout marginTop="3pt"
    android:layout_marginRight="10pt">
    <EditText
      android:id="@+id/etNum1"
      android:layout_width="wrap_content"
      android:layout height="wrap content"
      android:layout_marginRight="5pt"
      android:layout_weight="1"
      android:hint="Enter the value here"
      android:inputType="numberDecimal"
      android:textColor="#FFFFFF"></EditText>
  </LinearLayout>
  <LinearLayout
    android:id="@+id/linearLayout2"
    android:layout_width="match_parent"
    android:layout height="wrap content"
    android:layout marginLeft="5pt"
    android:layout_marginTop="3pt"
    android:layout_marginRight="5pt">
    <Button
      android:id="@+id/btnAdd"
      android:layout width="wrap content"
      android:layout_height="wrap_content"
      android:layout_weight="2"
      android:background="#7C3C3C"
      android:text="Factorial"
      android:textSize="8pt"></Button>
```

```
<TextView
    android:id="@+id/tvResult"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginLeft="5pt"
    android:layout_marginTop="3pt"
    android:layout_marginRight="5pt"
    android:layout weight="0.07"
    android:gravity="center_horizontal"
    android:textColor="#FFFFFF"
    android:textSize="12pt"></TextView>
</LinearLayout>
MainActivity.java
package com.example.factorial;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity implements View.OnClickListener{
  EditText etNum1;
  Button btnAdd;
  TextView tvResult;
  String oper = "";
  @Override
  public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    etNum1 = (EditText) findViewById(R.id.etNum1);
    btnAdd = (Button) findViewById(R.id.btnAdd);
    tvResult = (TextView) findViewById(R.id.tvResult);
    btnAdd.setOnClickListener(this);
  }
  @Override
  public void onClick(View v) {
    float num1=0;
    float fact=1;
    float result = 0;
```

```
num1=Float.parseFloat(etNum1.getText().toString());
    switch (v.getId()) {
       case R.id.btnAdd:
         oper = "+";
         for(int i=1;i<=num1;i++)</pre>
         {
           fact=fact*i;
         }
         result=fact;
         break;
       default:
         break;
    }
    tvResult.setText("Factorial of"+ " " + num1 + " = " + result);
  }
}
```

<u>Output</u>

