```java
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
/**
 * Panel01 creates a window dislplaying a 17 digit number and scrambles digi
ts when Button pressed
 *
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 * @period 2
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 * @version 11-13-18
 */
public class Panel01 extends JPanel
{
    private JLabel label;
    private JTextField box;
    /**
     * Constructor for objects of class Panel01
     */
    public Panel01()
    {
        setLayout(new FlowLayout());

        box = new JTextField("0.0", 10);
        box.setHorizontalAlignment(SwingConstants.RIGHT);
        add(box);

        JButton button = new JButton("SQRT");
        button.addActionListener(new Listener());
        add(button);

        //Sets already initiated label to a JLabel, this is done because oth
erwise a null pointer exception will occur when the program tries to reiniti
alize something that already exists
        label = new JLabel("0.0");
        label.setFont(new Font("Serif", Font.BOLD, 20));
        label.setForeground(Color.blue);
        add(label);
    }
    /**
     * Listener waits for a trigger action and executes actionPerformed to s
cramble numbers
     */
    private class Listener implements ActionListener
    {
        /**
         *actionPerformed - when button pressed then set the label to the sq
uare root of the double in the text box
```

```
     *
     * @param  e   trigger action
     */
    public void actionPerformed(ActionEvent e)
    {
        boolean negative = false;
        double a = Double.parseDouble(box.getText());
        if (a<0){
            a = Math.abs(a);
            negative = true;}
        a = Math.sqrt(a);
        label.setText("" + a);
        if (negative)
            label.setText(label.getText() + "i");
    }
  }
}
```