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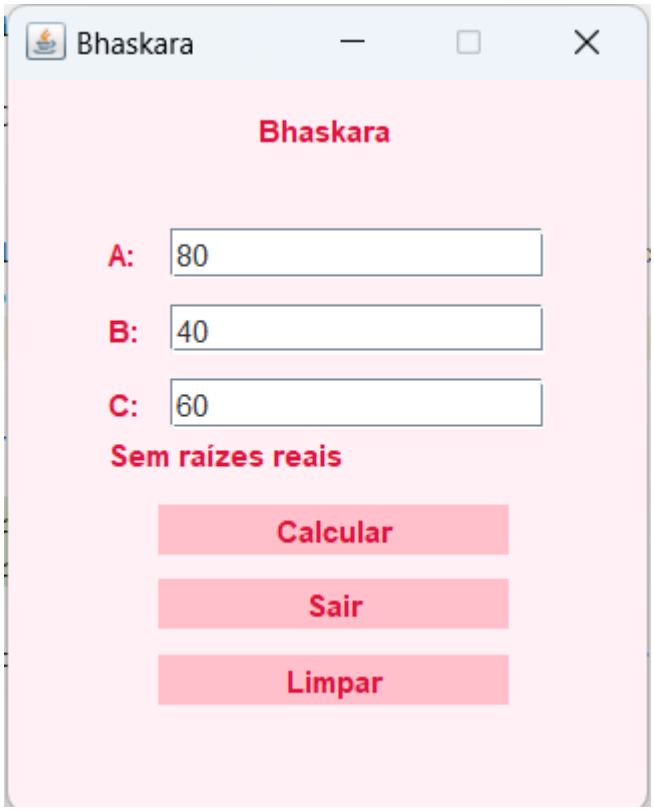
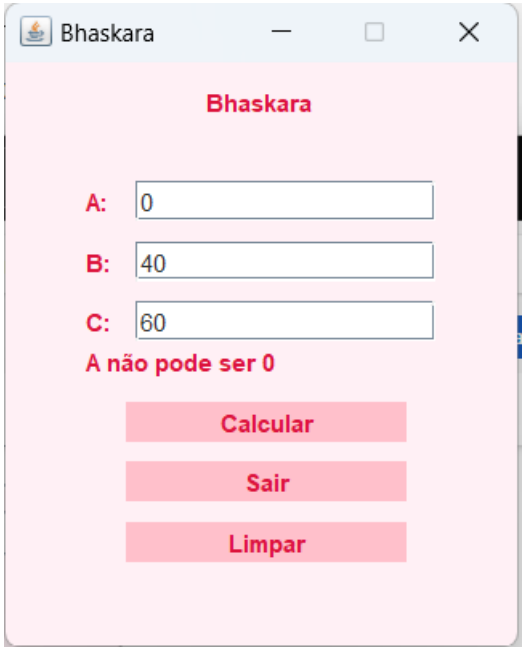
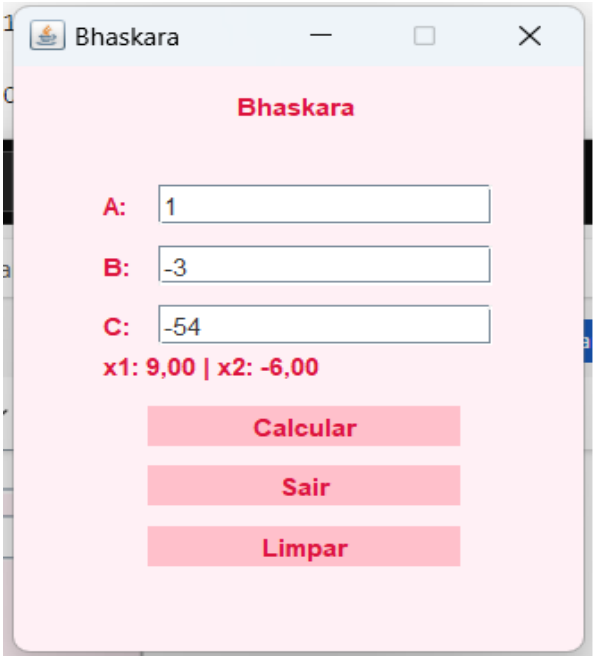
Bhaskara:








```java
package com.mycompany.bhaskaracalculadora;
import javax.swing.*;
import java.awt.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import javax.swing.border.EmptyBorder;

public class Bhaskaracalculadora {
    public static void main(String[] args) {
        JFrame frame = new JFrame("Bhaskara");
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.setSize (270, 330);
        frame.setLayout(null);

        JLabel titulo = new JLabel("Bhaskara");
        JLabel labelA = new JLabel("A:");
        JTextField fieldA = new JTextField();
        JLabel labelB = new JLabel("B:");
        JTextField fieldB = new JTextField();
        JLabel labelC = new JLabel("C:");
        JTextField fieldC = new JTextField();
        JButton calcular = new JButton("Calcular");
        JButton sair = new JButton("Sair");
        JButton limpar = new JButton("Limpar");
        JLabel resultado = new JLabel("");

        calcular = new JButton("Calcular");
        calcular.setBorder(new EmptyBorder(0, 0, 0, 0));
        calcular.setFocusPainted(false);
        sair = new JButton("Sair");
        sair.setBorder(new EmptyBorder(0, 0, 0, 0));
        sair.setFocusPainted(false);
        limpar = new JButton("Limpar");
        limpar.setBorder(new EmptyBorder(0, 0, 0, 0));
        limpar.setFocusPainted(false);
```

```
37          titulo.setBounds(100, 10, 100, 20);
38          labelA.setBounds(40, 60, 50, 20);
39          fieldA.setBounds(65, 60, 150, 20);
40          labelB.setBounds(40, 90, 50, 20);
41          fieldB.setBounds(65, 90, 150, 20);
42          labelC.setBounds(40, 120, 50, 20);
43          fieldC.setBounds(65, 120, 150, 20);
44          resultado.setBounds(40, 140,150, 20);
45          calcular.setBounds(60, 170, 140, 20);
46          sair.setBounds(60, 200, 140, 20);
47          limpar.setBounds(60, 230, 140, 20);
48
49
50          JLabel[] rotulos = {titulo, labelA, labelB, labelC, resultado};
51          for (JLabel rotulo : rotulos) {
52              rotulo.setForeground(new Color(220,20,60));
53          }
54          JButton[] botoes = {calcular, sair, limpar};
55          for (JButton botao : botoes) {
56          botao.setBackground(new Color (255,192,203));
57          botao.setForeground(new Color(220,20,60));
58      }
59          frame.getContentPane().setBackground(new Color(255,240,245));
60
61          frame.add(titulo);
62          frame.add(labelA);
63          frame.add(fieldA);
64          frame.add(labelB);
65          frame.add(fieldB);
66          frame.add(labelC);
67          frame.add(fieldC);
68          frame.add(calcular);
69          frame.add(sair);
70          frame.add(limpar);
71          frame.add(resultado);
```

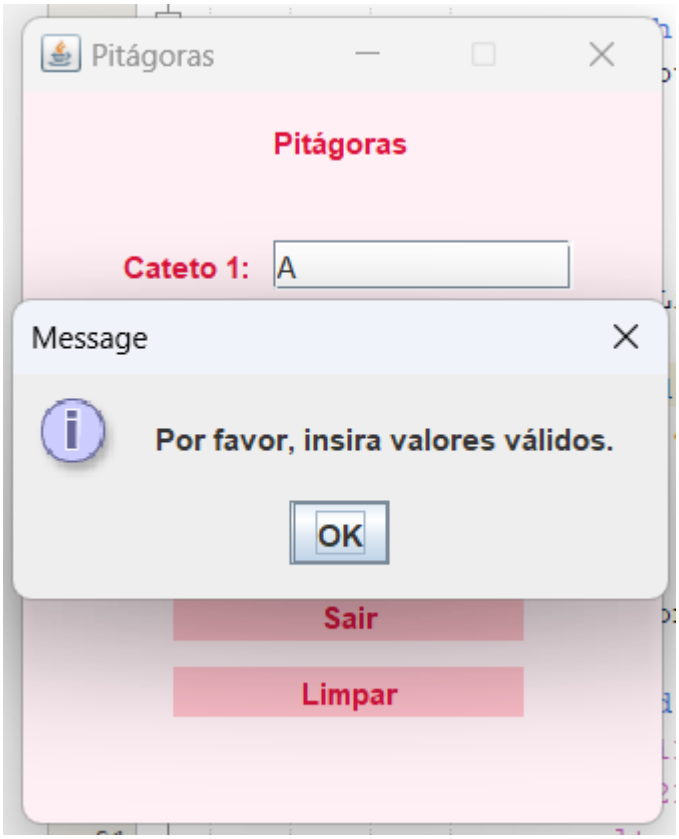
```
        calcular.addActionListener(new ActionListener() {
            @Override
            public void actionPerformed(ActionEvent e) {
                try {
                    double a = Double.parseDouble(fieldA.getText().trim());
                    double b = Double.parseDouble(fieldB.getText().trim());
                    double c = Double.parseDouble(fieldC.getText().trim());

                    if (a == 0) {
                        resultado.setText("A não pode ser 0");
                        return;
                    }

                    double delta = b * b - 4 * a * c;
                    if (delta < 0) {
                        resultado.setText("Sem raízes reais");
                    } else {
                        double x1 = (-b + Math.sqrt(delta)) / (2 * a);
                        double x2 = (-b - Math.sqrt(delta)) / (2 * a);
                        resultado.setText("x1: " + String.format("%.2f", x1) + " |
                    }
                } catch (NumberFormatException ex) {
                    resultado.setText("Entrada inválida");
                }
            }
        });
        sair.addActionListener(new ActionListener() {
            @Override
            public void actionPerformed(ActionEvent e) {
                System.exit(0);
            }
});
limpar.addActionListener(new ActionListener() {
            @Override
            public void actionPerformed(ActionEvent e) {
```

```
100             @Override
101             public void actionPerformed(ActionEvent e) {
102                 System.exit(0);
103             }
104     });
105     limpar.addActionListener(new ActionListener() {
106             @Override
107             public void actionPerformed(ActionEvent e) {
108                 labelA.setText(null);
109                 labelB.setText(null);
110                 labelC.setText(null);
111                 labelA.requestFocus();
112             }
113     });
114
115             frame.setVisible(true);
116             frame.setResizable(false);
117             frame.setVisible(true);
118             frame.setLocationRelativeTo(null);
119         }
120     }
121
```

Pitágoras:


Pitágoras
Pitágoras
Cateto 1:
A
Message
Por favor, insira valores válidos.
OK
Sair
Limpar

```java
package com.mycompany.pitagorascalculadora;

import java.awt.Color;
import javax.swing.*;
import java.awt.event.ActionEvent;
import java.awt.event.ActionListener;
import javax.swing.border.EmptyBorder;

public class Pitagorascalculadora extends JFrame {

    private JTextField cateto1F, cateto2F;
    private JButton calcular, sair, limpar;
    private JLabel titulo, cateto1L, cateto2L, resultadoL;

    public Pitagorascalculadora() {
        setTitle("Pitágoras");
        setLayout(null);

        titulo = new JLabel("Pitágoras");
        cateto1L = new JLabel("Cateto 1:");
        cateto1F = new JTextField();
        cateto2L = new JLabel("Cateto 2:");
        cateto2F = new JTextField();
        resultadoL = new JLabel("Resultado: ");
        calcular = new JButton("Calcular");
        sair = new JButton("Sair");
        limpar = new JButton("Limpar");
        calcular.setBorder(new EmptyBorder(0, 0, 0, 0));
        calcular.setFocusPainted(false);
        sair.setBorder(new EmptyBorder(0, 0, 0, 0));
        sair.setFocusPainted(false);
        limpar.setBorder(new EmptyBorder(0, 0, 0, 0));
        limpar.setFocusPainted(false);

        titulo.setBounds(100, 10, 100, 20);
        cateto1L.setBounds(40, 60, 50, 20);
```

```
cateto1F.setBounds(100, 60, 120, 20);
cateto2L.setBounds(40, 90, 50, 20);
cateto2F.setBounds(100, 90, 120, 20);
resultadoL.setBounds(40, 120, 180, 20);
calcular.setBounds(60, 170, 140, 20);
sair.setBounds(60, 200, 140, 20);
limpar.setBounds(60, 230, 140, 20);

JLabel[] rotulos = {titulo, cateto1L, cateto2L, resultadoL};
for (JLabel rotulo : rotulos) {
    rotulo.setForeground(new Color(220,20,60));
}
JButton[] botoes = {calcular, sair, limpar};
for (JButton botao : botoes) {
    botao.setBackground(new Color (255,192,203));
    botao.setForeground(new Color(220,20,60));
}

add(titulo);
add(cateto1L);
add(cateto1F);
add(cateto2L);
add(cateto2F);
add(resultadoL);
add(calcular);
add(sair);
add(limpar);

calcular.addActionListener(new ActionListener() {
    @Override
    public void actionPerformed(ActionEvent e) {
        try {
            double cateto1 = Double.parseDouble(cateto1F.getText());
            double cateto2 = Double.parseDouble(cateto2F.getText());
            double hipotenusa = Math.sqrt(Math.pow(cateto1, 2) + Math.pow(cateto2, 2));
            resultadoL.setText("Hipotenusa: " + String.format("%.2f", hipotenusa));
```

```
            } catch (NumberFormatException ex) {
                JOptionPane.showMessageDialog(null, "Por favor, insira valores válidos.");
            }
        }
    });

    sair.addActionListener(new ActionListener() {
        @Override
        public void actionPerformed(ActionEvent e) {
            System.exit(0);
        }
    });

    limpar.addActionListener(new ActionListener() {
        @Override
        public void actionPerformed(ActionEvent e) {
            cateto1F.setText("");
            cateto2F.setText("");
            resultadoL.setText("Resultado: ");
            cateto1F.requestFocus();
        }
    });

    getContentPane().setBackground(new Color(255,240,245));
    setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
    setSize(270, 330);
    setVisible(true);
    setLocationRelativeTo(null);
    setResizable(false);
}

public static void main(String[] args) {
    new Pitagorascalculadora();
}
}
```