```java
/*Write a program that creates a user interface to perform integer divisions. The user enters two
numbers in the text fields, Num1 and Num2. The division of Num1 and Num2 is displayed in the
Result field when the Divide button is clicked. If Num1 or Num2 were not an integer, the program
would throw a NumberFormatException. If Num2 were Zero, the program would throw an
Arithmetic Exception Display the exception in a message dialog box.*/
import java.awt.*;
import java.awt.event.*;
class DialogBox extends Dialog implements ActionListener{
    IntDivisionD id;
    DialogBox(Frame parent,String title){
        super(parent,title,true);
        id=(IntDivisionD)parent;
        setLayout(new FlowLayout());
        setSize(300,300);
        add(new Label(id.msg));
        Button b;
        add(b=new Button("OK"));
        b.addActionListener(this);
    }
    public void actionPerformed(ActionEvent ae){
        dispose();
    }
}
public class IntDivisionD extends Frame implements ActionListener{
    TextField num1,num2,result;
    String res,msg;
```

```
}
public class IntDivisionD extends Frame implements ActionListener{
    TextField num1,num2,result;
    String res,msg;
    Button div;
    public IntDivisionD(){
        setLayout(new FlowLayout());
        div=new Button("Divide");
        Label numa=new Label("Number 1: ",Label.RIGHT);
        Label numb=new Label("Number 2: ",Label.RIGHT);
        Label res1=new Label("Result: ",Label.RIGHT);
        num1=new TextField(5);
        num2=new TextField(5);
        result=new TextField(10);
        add(numa);
        add(num1);
        add(div);
        add(numb);
        add(num2);
        add(res1);
        add(result);
        num1.addActionListener(this);
        div.addActionListener(this);
        num2.addActionListener(this);
        result.addActionListener(this);
        addWindowListener(new WindowAdapter(){
            public void windowClosing(WindowEvent we){
```

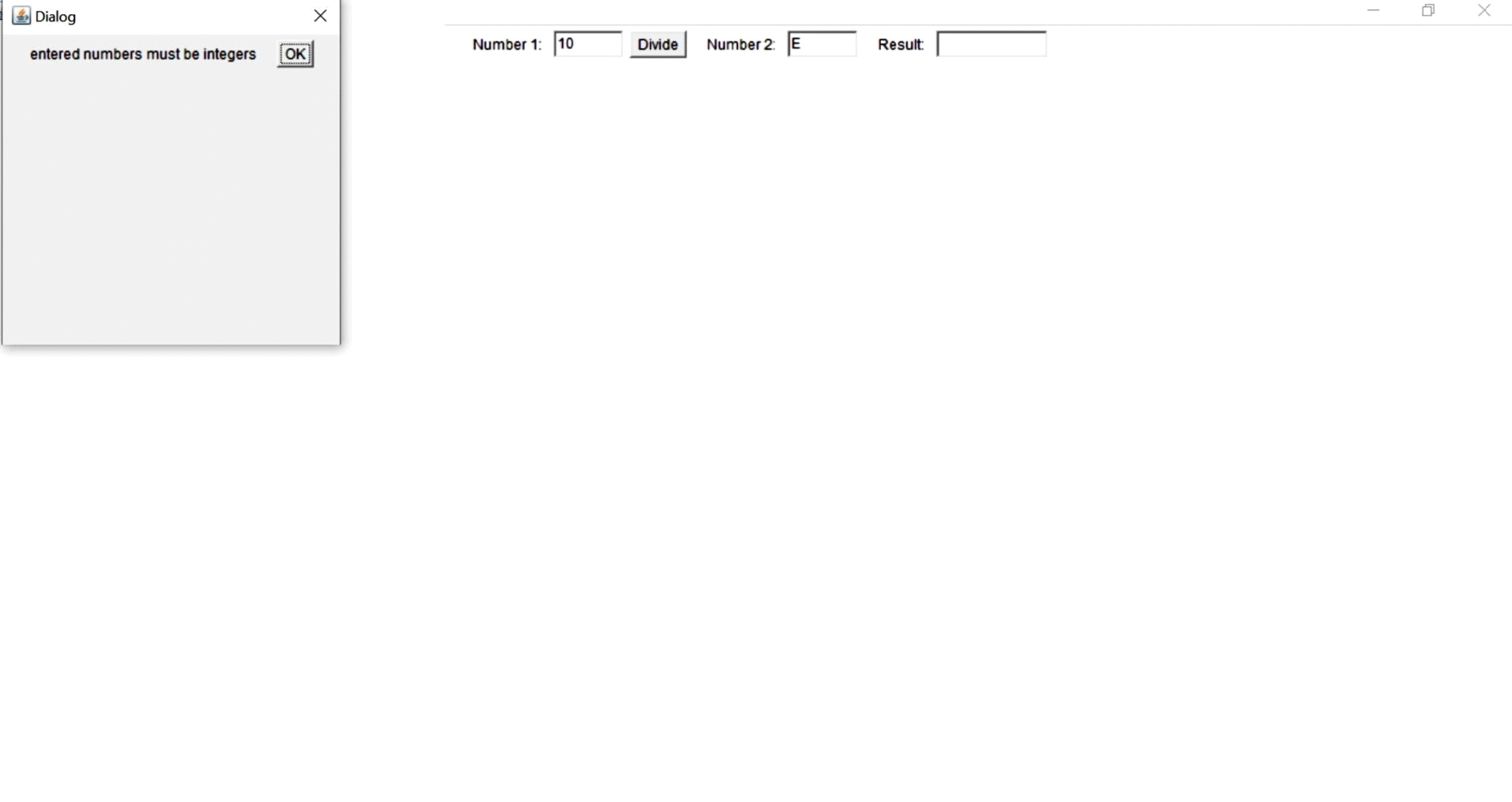
```
        num1.addActionListener(this);
        div.addActionListener(this);
        num2.addActionListener(this);
        result.addActionListener(this);
        addWindowListener(new WindowAdapter(){
            public void windowClosing(WindowEvent we){
                System.exit(0);
            }
        });
    }
public void actionPerformed(ActionEvent ae){
    String s=ae.getActionCommand();
    if(s.equals("Divide"))
    {
        result.setText(divide());
    }
    }
    String divide(){
        int n1,n2,n=0;
        try
    {
        n1=Integer.parseInt(num1.getText());
        n2=Integer.parseInt(num2.getText());

    }
    catch (NumberFormatException ne)
    {
```

```
64      {
65          n1=Integer.parseInt(num1.getText());
66          n2=Integer.parseInt(num2.getText());
67
68      }
69      catch (NumberFormatException ne)
70      {
71       msg="entered numbers must be integers";
72       DialogBox d = new DialogBox(this, "Dialog");
73       d.setVisible(true);
74      }
75          n1=Integer.parseInt(num1.getText());
76          n2=Integer.parseInt(num2.getText());
77       if(n2==0)
78          {
79
80           msg="cannot divide a number by 0";
81           DialogBox d = new DialogBox(this, "Dialog");
82           d.setVisible(true);
83           return " ";
84          }
85
86          else
87          {
88
89          n1=Integer.parseInt(num1.getText());
90          n2=Integer.parseInt(num2.getText());
```

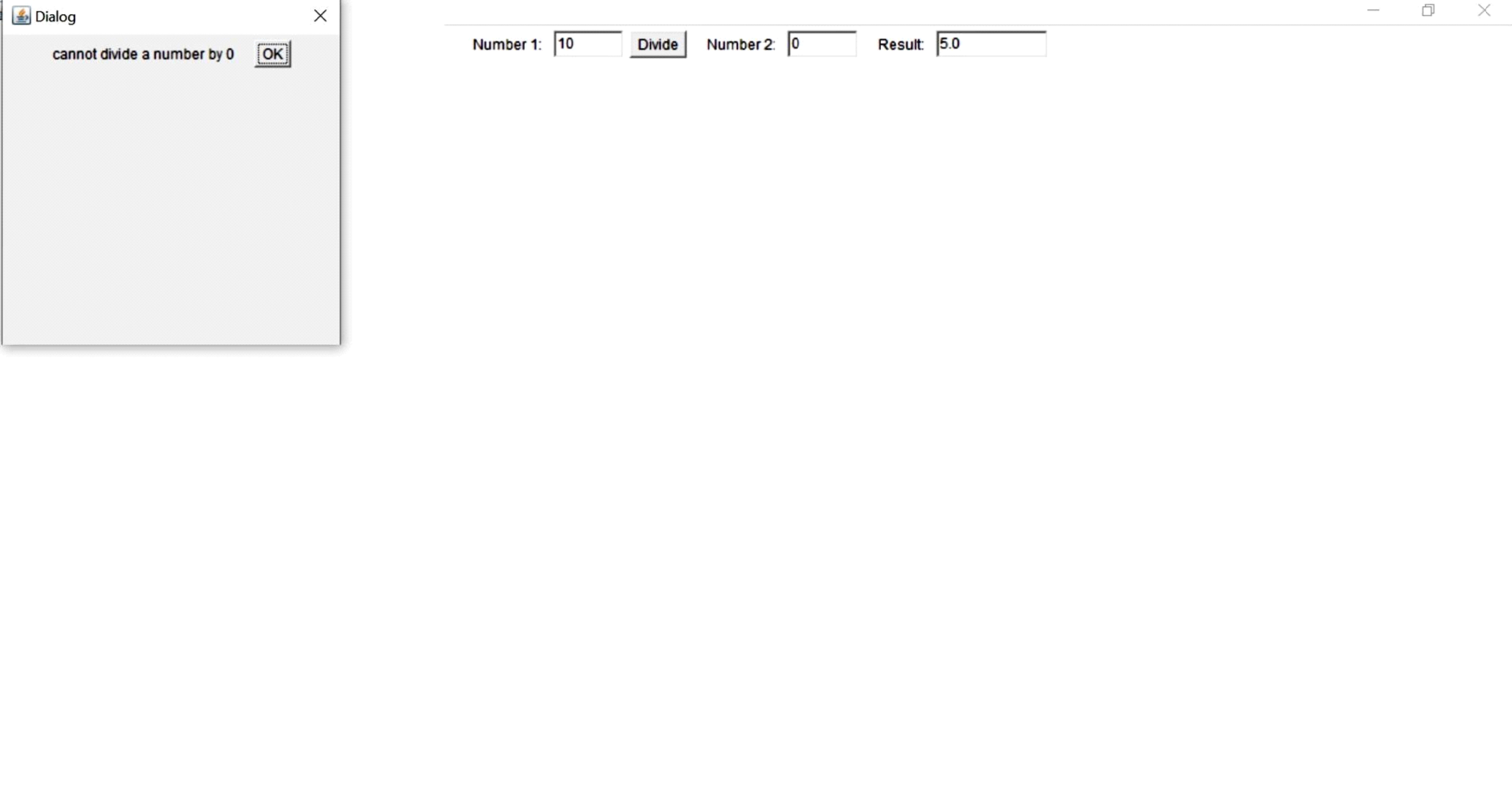
```
79
80          msg="cannot divide a number by 0";
81          DialogBox d = new DialogBox(this, "Dialog");
82          d.setVisible(true);
83          return " ";
84         }
85
86         else
87         {
88
89         n1=Integer.parseInt(num1.getText());
90         n2=Integer.parseInt(num2.getText());
91         n=n1/n2;
92         }
93
94         res=Double.toString(n);
95         return res;
96     }
97  public static void main(String args[]){
98         IntDivisionD intdiv=new IntDivisionD();
99         intdiv.setSize(new Dimension(380,180));
100        intdiv.setTitle("TextFieldDemo");
101        intdiv.setVisible(true);
102    }
103 }
```


TextFieldDemo
Number 1:
10
Divide
Number 2:
2
Result:
5.0


TextFieldDemo
Number 1:
10
Divide
Number 2:
E
Result:


Dialog
entered numbers must be integers
OK
Number 1:
10
Divide
Number 2:
E
Result:


TextFieldDemo
Number 1:
10
Divide
Number 2:
0
Result:


Dialog
cannot divide a number by 0
OK
Number 1:
10
Divide
Number 2:
0
Result:
5.0