

Exercise (Jun. 2, 2009)

- 仿照下面程式，進行英呎、公分之度量衡轉換

```
1 import javax.swing.*;
2 import java.awt.*;
3 import java.awt.event.*;
4 public class TempConverter{
5     JFrame myFrame = new JFrame("華氏、攝氏溫度轉換");
6     JTextField result = new JTextField();
7     JTextField degree = new JTextField();
8     JButton f2c = new JButton("華氏 -> 攝氏");
9     JButton c2f = new JButton("攝氏 -> 華氏");
10    public static void main(String[] argv){
11        TempConverter test = new TempConverter();
12    }
13    public TempConverter(){
14        Container contentPane = myFrame.getContentPane();
15        contentPane.add(new JLabel("請輸入溫度"), BorderLayout.NORTH);
16        contentPane.add(f2c, BorderLayout.EAST);
17        contentPane.add(c2f, BorderLayout.WEST);
18        contentPane.add(degree, BorderLayout.CENTER);
19        contentPane.add(result, BorderLayout.SOUTH);
```

度量衡換算

1 吋 (inches) = 2.540 公分 (cm)

1 英呎 (feet) = 12 吋 = 30.48 公分 (cm)

66 吋 = 66*2.540 = 167.64 公分 (cm)

6 英呎 = 6*12 吋 = 72 吋 = 6*30.48 公分 = 182.88 公分

Exercise (Jun. 2, 2009) (Cont.)

```
20 f2c.addActionListener(new ActionListener(){
21     public void actionPerformed(ActionEvent e){
22         try{
23             double f = Double.parseDouble(degree.getText());
24             result.setText("華氏 "+f+" 度等於攝氏 "+ ((f-32)*5/9));
25         } catch (NumberFormatException ne){
26             degree.setText("");
27         }
28     }
29 });
30 c2f.addActionListener(new ActionListener(){
31     public void actionPerformed(ActionEvent e){
32         try{
33             double c = Double.parseDouble(degree.getText());
34             result.setText("攝氏 "+c+" 度等於華氏 "+ (c/5*9+32));
35         } catch (NumberFormatException ne){
36             degree.setText("");
37         }
38     }
39 });
40 myFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
41 myFrame.setSize(400, 120);
42 myFrame.setVisible(true);
43 }
44 }
```

