

```
1 // PiCalc.java, calculating pi through infinite series.
2
3 import java.applet.Applet;
4 import java.awt.*;
5 import java.awt.event.*;
6
7 public class PiCalc extends Applet implements ActionListener {
8
9     Label prompt1;
10    TextField input1;
11    double value, indival;
12    int counter, loopnum;
13
14    Button go_button = new Button("Go!");
15
16
17    public void init() {
18        prompt1 = new Label( "Number of iterations" );
19        add( prompt1 );
20
21        input1 = new TextField( 10 );
22        add( input1 );
23
24        go_button.addActionListener( this );
25        add( go_button );
26    }
27
28
29
30    public void paint( Graphics g ) {
31        g.drawString( Double.toString( value ), 70, 125 );
32    }
33
34
35    public void actionPerformed((ActionEvent e) {
36        value=0;
37
38        loopnum = Integer.parseInt( input1.getText() );
39
40
41        for (counter = 1 ; counter <= loopnum; counter++ ) {
42            indival = 4.0 / (counter * 2.0 - 1.0);
43            if ( ( counter / 2.0 ) == ( (int) (counter/2.0) ) )
44                value = value - indival;
45            else
46                value = value + indival;
47        }
48        repaint();
49    }
50 }
51
```

```
1  <!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML//EN">
2  <html>
3    <head>
4      <title>PiCalc</title>
5    </head>
6
7    <body>
8      <h1>PiCalc</h1>
9
10     <applet code="PiCalc.class" width=300 height=250></applet>
11
12     <hr>
13     <address><a href="mailto:taper@wtower.com"></a></address>
14
15     <!-- Created: Sun Jan 23 23:45:29 PST 2000 -->
16     <!-- hhmts start -->
17     Last modified: Sun Jan 23 23:45:43 PST 2000
18     <!-- hhmts end -->
19   </body>
20 </html>
21
```

PiCalc

Number of iterations

10

Go!

3.0418396189294032

PiCalc

Number of iterations

20

Go!

3.09162380666784

PiCalc

Number of iterations

100

Go!

3.1315929035585537

PiCalc

Number of iterations

1000

Go!

3.140592653839794

PiCalc

Number of iterations

100000

Go

3.1415826535897198

PiCalc

Number of iterations

200000

Go

3.1415876535897618