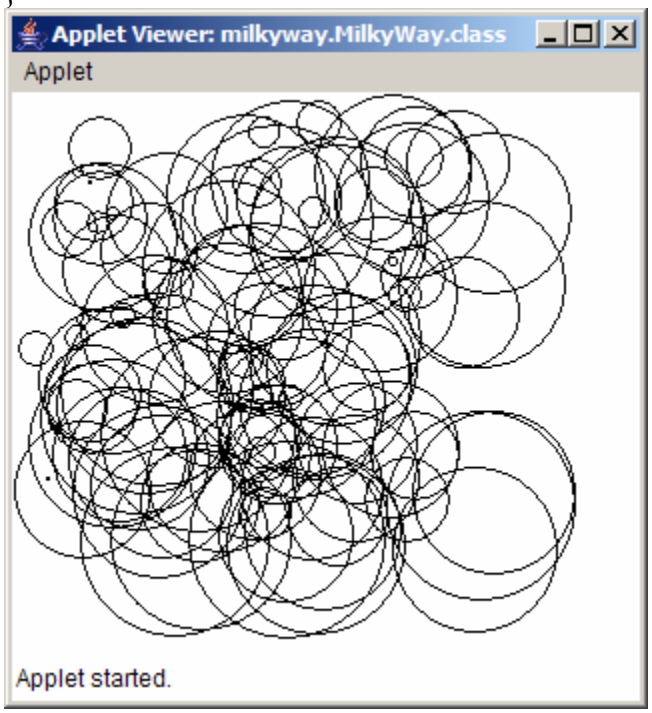
```
/*
 * Chris Tjon - Wed 4pm - Ex 8.3 - Milky Way Program
 */
package milkyway;

import java.awt.*;
import java.applet.Applet;

public class MilkyWay extends Applet
{
   private Scrollbar lengthBar, heightBar;
   private int height = 100, length = 100;

   public void paint(Graphics g)
   {
         int xpos;
         int ypos;
         int diameter;

      for (int i = 0; i < 100; i++)
      {
         xpos = (int)((Math.random() * 200) + 1);
         ypos = (int)((Math.random() * 200) + 1);
         diameter = (int)((Math.random() * 100) + 1);
         g.drawOval(xpos, ypos, diameter, diameter);
      }
   }
}
```

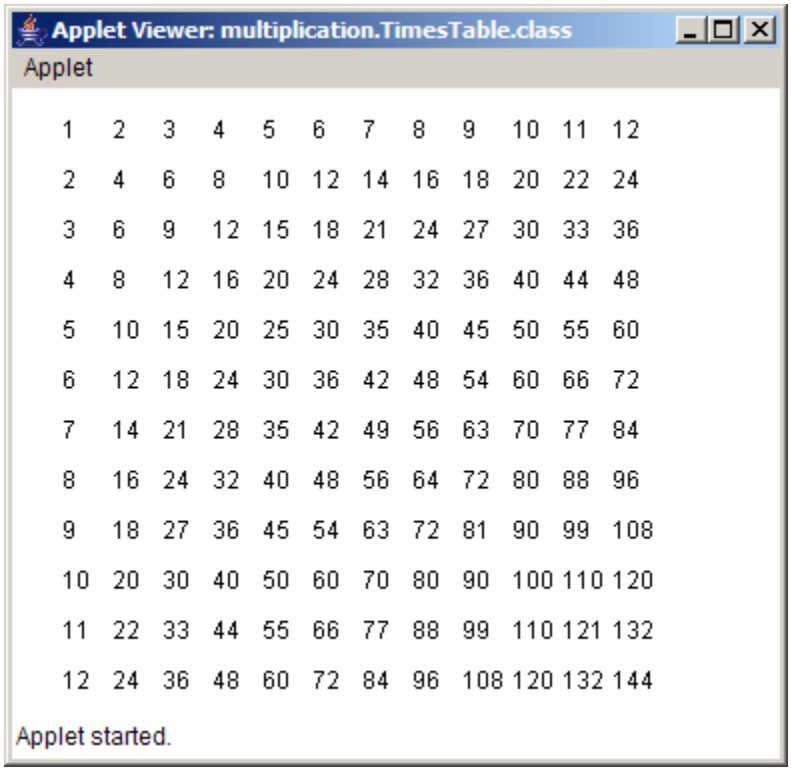


```
/*
 * Chris Tjon - Wed 4pm - Ex 8.8 - Multiplication Table
 */
package multiplication;

import java.awt.*;
import java.applet.*;

public class TimesTable extends Applet
{
	private int size = 12;

	public void paint (Graphics g)
   {
	for (int i = 1; i <= size; i++)
	{
		for (int j = 1; j <= size; j++)
		{
			int result = i * j;
			g.drawString("" + (i * j), i * 25, j * 25);
		}
	}
   }
}
```



```
/*
 * Chris Tjon - Wed 4pm - Ex 7.8 - Calculator Program
 */
package calculator;

import java.applet.*;
import java.awt.*;
import java.awt.event.*;

public class Calculator extends Applet implements ActionListener
{
   private Button one, two, three, four, five, six, seven,
                                       eight, nine, zero, plus, minus, equals, clear;
   private int input;
   private int total;

   public void init()
   {
      one = new Button("1");
      add (one);
      one.addActionListener(this);

      two = new Button("2");
      add (two);
      two.addActionListener(this);

      three = new Button ("3");
      add (three);
      three.addActionListener(this);

      four = new Button ("4");
      add (four);
      four.addActionListener(this);

      five = new Button ("5");
      add (five);
      five.addActionListener(this);

      six = new Button ("6");
      add (six);
      six.addActionListener(this);

      seven = new Button ("7");
      add (seven);
      seven.addActionListener(this);

      eight = new Button ("8");
      add (eight);
      eight.addActionListener(this);

      nine = new Button ("9");
```

```
    add (nine);
    nine.addActionListener(this);

    zero = new Button ("0");
    add (zero);
    zero.addActionListener(this);

    plus = new Button ("+");
    add (plus);
    plus.addActionListener(this);

    minus = new Button ("-");
    add (minus);
    minus.addActionListener(this);

    equals = new Button ("=");
    add (equals);
    equals.addActionListener(this);

    clear = new Button ("Clear");
    add (clear);
    clear.addActionListener(this);
}

public void paint(Graphics g)
{
        g.drawString ("Input = " + input, 50,130);
        g.drawString ("Total = " + total, 50,150);
}

public void actionPerformed(ActionEvent event) {
    if (event.getSource() == one)
        input = (input * 10) + 1;

    if (event.getSource() == two)
        input = (input * 10) + 2;

    if (event.getSource() == three)
        input = (input * 10) + 3;

    if (event.getSource() == four)
        input = (input * 10) + 4;

    if (event.getSource() == five)
        input = (input * 10) + 5;

    if (event.getSource() == six)
        input = (input * 10) + 6;

    if (event.getSource() == seven)
        input = (input * 10) + 7;
```

```
        if (event.getSource() == eight)
            input = (input * 10) + 8;

        if (event.getSource() == nine)
            input = (input * 10) + 9;

        if (event.getSource() == zero)
            input = (input * 10) + 0;

        if (event.getSource() == plus)
        {
            total += input;
            input = 0;
        }

        if (event.getSource() == minus)
        {
            total -= input;
            input = 0;
        }

        if (event.getSource() == equals)
            input = total;

        if (event.getSource() == clear)
        {
            input = 0;
            total = 0;
        }

        repaint();
    }
}
```