画1/4圆

方法一：

import javax.swing.\*;

import java.awt.\*;

class CirclePanel extends JPanel {

protected void paintComponent(Graphics g) {

super.paintComponent(g);

int x, y, p, R = 200;

x = 0;

y = R;

p = 3 - 2 \* R;

for(;x <= y;x++){

g.drawString(".", x, y);

g.drawString(".", y, x);

if(p >= 0) {

p += 4 \* (x - y) + 10;

y--;

}

else{

p += 4 \* x + 6;

}

}

}

}

public class BresenhamCircle1 extends JFrame {

public BresenhamCircle1() {

setTitle("CircleArcs");

add(new CirclePanel());

}

/\*\* Main method \*/

public static void main(String[] args) {

BresenhamCircle1 frame = new BresenhamCircle1();

frame.setLocationRelativeTo(null); // Center the frame

frame.setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

frame.setSize(300, 300);

frame.setVisible(true);

}

}

方法二：

import javax.swing.\*;

import java.awt.\*;

public class MidpointCircle1 extends JFrame {

public MidpointCircle1() {

setTitle("DrawArcs");

add(new ArcsPanel());

}

/\*\* Main method \*/

public static void main(String[] args) {

MidpointCircle1 frame = new MidpointCircle1();

frame.setLocationRelativeTo(null);

frame.setSize(300, 300);

frame.setVisible(true);

}

}

class ArcsPanel extends JPanel {

protected void paintComponent(Graphics g) {

super.paintComponent(g);

int x, y, R = 100;

double d;

x = 0;y = R;d = 1.25 - R;

g.drawString(".", x, y);

while(x < y){

if(d < 0){

d += 2 \* x + 3;

x++;

}else{

d += 2 \* (x - y) + 5;

x++;

y--;

}

g.drawString(".", x, y);

g.drawString(".", y, x);

}

}

}

画1/4椭圆

import javax.swing.\*;

import java.awt.\*;

public class Ellipse4 extends JFrame {

public Ellipse4() {

setTitle("DrawArcs");

add(new ArcsPanel());

}

/\*\* Main method \*/

public static void main(String[] args) {

Ellipse4 frame = new Ellipse4();

frame.setLocationRelativeTo(null); // Center the frame

frame.setDefaultCloseOperation(JFrame.EXIT\_ON\_CLOSE);

frame.setSize(600, 600);

frame.setVisible(true);

}

}

// The class for drawing arcs on a panel

class ArcsPanel extends JPanel {

protected void paintComponent(Graphics g) {

super.paintComponent(g);

double x,y,a=100.,b=40.,Tx=300,Ty=300,Sx=.5,Sy=2.5;

double d=.0,st=-3.14/6;

x=0.;

y=0.;

d=.0;

while(d<=1.57\*4){

x=a\*Math.cos(d);

y=b\*Math.sin(d);

g.drawString(".", (int)(x+Tx),(int)(y+Ty));

System.out.printf(" ");

d=d+.01;

}

}

}