import java.awt.\*;

import java.applet.\*;

import java.io.\*;

import java.util.\*;

/\*<applet code= "Ellipse.class" height=400 width=700>

</applet>\*/

public class Ellipse extends Applet

{

Scanner sc=new Scanner(System.in);

float x,y,rx,ry,xc,yc;

double dx,dy,d1,d2;

public void init()

{

System.out.println("Enter the x and y radius");

rx=sc.nextInt();

ry=sc.nextInt();

System.out.println("Enter the x and y centre");

xc=sc.nextInt();

yc=sc.nextInt();

}

public void paint(Graphics g)

{

x=0;

y=ry;

//r1

d1=ry\*ry-rx\*rx\*ry+0.25\*rx\*rx;

dx=2\*ry\*ry\*x;

dy=2\*rx\*rx\*y;

do

{

g.setColor(Color.red);

g.drawLine((int)(x+xc),(int)(y+yc),(int)(x+xc),(int)(y+yc));

g.drawLine((int)xc,(int)yc,(int)(x+xc),(int)(y+yc));

g.setColor(Color.blue);

g.drawLine((int)(-x+xc),(int)(y+yc),(int)(-x+xc),(int)(y+yc));

g.drawLine((int)xc,(int)yc,(int)(-x+xc),(int)(y+yc));

g.setColor(Color.yellow);

g.drawLine((int)(x+xc),(int)(-y+yc),(int)(x+xc),(int)(-y+yc));

g.drawLine((int)xc,(int)yc,(int)(x+xc),(int)(-y+yc));

g.setColor(Color.green);

g.drawLine((int)(-x+xc),(int)(-y+yc),(int)(-x+xc),(int)(-y+yc));

g.drawLine((int)xc,(int)yc,(int)(-x+xc),(int)(-y+yc));

if(d1<0)

{

x=x+1;

y=y;

dx=dx+2\*ry\*ry;

d1=d1+dx+ry\*ry;

}

else

{

x=x+1;

y=y-1;

dx=dx+2\*ry\*ry;

dy=dy-2\*rx\*rx;

d1=d1+dx-dy+ry\*ry;

}}

while(dx<dy);

//r2

d2=ry\*ry\*(x+0.5)\*(x+0.5)+rx\*rx\*(y-1)\*(y-1)-rx\*rx\*ry\*ry;

do

{

g.setColor(Color.red);

g.drawLine((int)(x+xc),(int)(y+yc),(int)(x+xc),(int)(y+yc));

g.drawLine((int)xc,(int)yc,(int)(x+xc),(int)(y+yc));

g.setColor(Color.blue);

g.drawLine((int)(-x+xc),(int)(y+yc),(int)(-x+xc),(int)(y+yc));

g.drawLine((int)xc,(int)yc,(int)(-x+xc),(int)(y+yc));

g.setColor(Color.yellow);

g.drawLine((int)(x+xc),(int)(-y+yc),(int)(x+xc),(int)(-y+yc));

g.drawLine((int)xc,(int)yc,(int)(x+xc),(int)(-y+yc));

g.setColor(Color.green);

g.drawLine((int)(-x+xc),(int)(-y+yc),(int)(-x+xc),(int)(-y+yc));

g.drawLine((int)xc,(int)yc,(int)(-x+xc),(int)(-y+yc));

if(d2>0)

{

x=x;

y=y-1;

dy=dy-2\*rx\*rx;

d2=d2-dy+rx\*rx;

}

else

{

x=x+1;

y=y-1;

dx=dx+2\*ry\*ry;

dy=dy-2\*rx\*rx;

d2=d2+dx-dy+ry\*ry;

}}

while(y>0);

}

}

OUTPUT:-

D:\>javac Ellipse.java

D:\>appletviewer Ellipse.java

Enter the x and y radius

50

100

Enter the x and y centre

65

180

