import java.awt.Color;

import java.awt.Graphics;

public class Part1 {

public static void main(String[] args) {

DrawingPanel panel = new DrawingPanel(401, 401);

Graphics g = panel.getGraphics();

panel.setBackground(Color.WHITE);

int ax = 0;

int ay = 0;

int by = 0;

int bx = 0;

int cy = 400;

int cx = 0;

int dx = 400;

int dy = 0;

int centerX = 200, centerY= 200;

int angle = 10;

g.setColor(Color.GREEN);

//A

for (int point = 0; point <= 20; point++) {

ay = 400 - 20\*point;

System.out.print("A" + point + "=(" + ax + "," + ay + "), ");

}

System.out.println();

//B

for (int point = 0; point <= 20; point++) {

bx = 0 + 20 \*point;

System.out.print("B" + point + "=(" + bx + "," + by + "), ");

}

System.out.println();

//C

for (int point = 0; point <= 20; point++) {

cx = 0 + 20\*point;

System.out.print("C" + point + "=(" + cx + "," + cy + "), ");

}

System.out.println();

//D

for (int point = 0; point <= 20; point++) {

dy = 0 + 20 \* point;

System.out.print("A" + point + "=(" + dx + "," + dy + "), ");

}

System.out.println();

//connect A to B

for (int point = 0; point <= 20; point++) {

g.drawLine(ax, 400 - 20\*point, 0 + 20 \*point, by);

}

//Connect C to D

for (int point = 0; point <= 20; point++) {

g.drawLine(0 + 20\*point, cy, dx, 400 - 20 \* point);

}

g.setColor(Color.CYAN);

for(int point = 0; point <= 36; point++) {

int x1 = (int) (centerX + 140 \* Math.cos(Math.toRadians(angle \* point)));

int y1 = (int) (centerY + 140 \* Math.sin(Math.toRadians(angle \* point)));

int x2 = (int) (centerX + 140 \* Math.cos(Math.toRadians((angle \* point) + 140)));

int y2 = (int) (centerY + 140 \* Math.sin(Math.toRadians((angle \* point) + 140)));

g.drawLine(x1, y1, x2, y2);

}

g.setColor(Color.BLUE);

for(int point = 0; point <= 36; point++) {

int x1 = (int) (centerX + 140 \* Math.cos(Math.toRadians(angle \* point)));

int y1 = (int) (centerY + 140 \* Math.sin(Math.toRadians(angle \* point)));

int x2 = (int) (centerX + 140 \* Math.cos(Math.toRadians((angle \* point) + 100)));

int y2 = (int) (centerY + 140 \* Math.sin(Math.toRadians((angle \* point) + 100)));

g.drawLine(x1, y1, x2, y2);

}

}

}

