#include<iostream.h>

#include<graphics.h>

#include<conio.h>

#include<math.h>

void koch(int x1, int y1, int x2, int y2,int it)

{ int x3,x4,y3,y4,x,y;

int slicex=(x2-x1)/3;

int slicey=(y2-y1)/3;

x3=x1+slicex;

y3=y1+slicey;

x4=x2-slicex;

y4=y2-slicey;

float angle=(60\*M\_PI)/180;

x=x3+(x4-x3)\*cos(angle)+(y4-y3)\*sin(angle);

y=y3-(x4-x3)\*sin(angle)+(y4-y3)\*cos(angle);

if(it>0)

{

koch(x1,y1,x3,y3,it-1);

koch(x3,y3,x,y,it-1);

koch(x,y,x4,y4,it-1);

koch(x4,y4,x2,y2,it-1);

 }

else{

line(x1,y1,x3,y3);

line(x3,y3,x,y);

line(x,y,x4,y4);

line(x4,y4,x2,y2);

}

}

void main()

{

int gd=DETECT,gm, x1=100,y1=100, x2=400,y2=400,it=4;

initgraph(&gd,&gm,"c:\\turboc3\\bgi");

koch(x1,y1,x2,y2,it);

getch();

closegraph();

}