```
#include <GL/glut.h>
#include<GL/gl.h>
#include<GL/glu.h>
#include <math.h>

GLfloat oldx=-0.7,oldy=0.5;

void drawkoch(GLfloat dir,GLfloat len,GLint iter)
{
        GLdouble dirRad = 0.0174533 * dir;
        GLfloat newX = oldx + len * cos(dirRad);
        GLfloat newY = oldy + len * sin(dirRad);
        if (iter==0)
      {
                glVertex2f(oldx, oldy);
                glVertex2f(newX, newY);
                oldx = newX;
                oldy = newY;
        }
        else
      {
                iter--;
                //draw the four parts of the side _/\_
                drawkoch(dir, len, iter);
                dir += 60.0;
                drawkoch(dir, len, iter);
                dir -= 120.0;
                drawkoch(dir, len, iter);
                dir += 60.0;
                drawkoch(dir, len, iter);
        }
}

void mydisplay()
{
         glClear( GL_COLOR_BUFFER_BIT );
         glBegin(GL_LINES);
         glColor3f(1.0, 0.0, 0.0); // make it red

         //call drawkoch 3 times, one for each side of the triangle, changing direction each time


         /*drawkoch(0.0,0.5,1);
```

```
        drawkoch(-120.0, 0.5, 1);
        drawkoch(120.0,0.5,1);


        drawkoch(0.0,0.15,2);
        drawkoch(-120.0, 0.15, 2);
        drawkoch(120.0,0.15,2);*/


        drawkoch(0.0,0.05,3);
        drawkoch(-120.0, 0.05, 3);
        drawkoch(120.0,0.05,3);

        glEnd();
        glFlush();
}

int main(int argc, char** argv)
{
        glutInit(&argc,argv);
        glutInitDisplayMode(GLUT_SINGLE|GLUT_RGB);
        glutInitWindowPosition(0,0);
        glutInitWindowSize(500,500);
        glutCreateWindow("Koch Snowflake");
        glutDisplayFunc(mydisplay);
        glutMainLoop();
}
```