

Assignment no 7(A)

```
#include <GL/glut.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 display(
```

```

glClearColor(1.0,1.0,1.0,0);

    glColor3f(0.0, 0.0, 0.0);
glClear( GL_COLOR_BUFFER_BIT );
glBegin(GL_LINES);
/*
    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);
glutInitWindowSize(500,500);
glutInitWindowPosition(0,0);
glutCreateWindow("Koch Curves");
glutDisplayFunc(display);
glutMainLoop();
}

```