**Rotation**

#include <GL/glut.h>

#include <iostream>

void display() {

glClear(GL\_COLOR\_BUFFER\_BIT);

// Original rectangle

glColor3f(1.0, 0.0, 0.0);

glBegin(GL\_POLYGON);

glVertex2f(100, 100);

glVertex2f(200, 100);

glVertex2f(200, 200);

glVertex2f(100, 200);

glEnd();

glTranslatef(30,30,0);

glRotatef(45,0,0,1);

glTranslatef(-30,-30,0);

glFlush();

}

void init() {

glClearColor(1.0, 1.0, 1.0, 1.0); // Set background color to white

glMatrixMode(GL\_PROJECTION);

gluOrtho2D(-250, 250, 0, 300); // Set the coordinate system

}

int main(int argc, char\*\* argv) {

glutInit(&argc, argv);

// glutInitDisplayMode(GLUT\_SINGLE | GLUT\_RGB);

glutInitWindowSize(500, 300);

glutCreateWindow("2D Reflection using OpenGL");

init();

glutDisplayFunc(display);

glutMainLoop();

return 0;

}