**Lab Taks-1**

Submission Guidelines-

* Rename the file to your id only. If your id is 18-XXXXX-1, then the file name must be 18-XXXXX-1.docx.
* Must submit within the given deadline in VUES to the section named Lab Tak-1
* Must include resources for all the section in the table

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| **Question-**  Draw the object- |
| **Graph Plot (Picture)-** |
| **Code-**  **#ifdef \_\_APPLE\_\_**  **#include <GLUT/glut.h>**  **#else**  **#include <GL/glut.h>**  **#endif**  **#include <stdlib.h>**  **void display() {**  **glClearColor(0.0f, 0.0f, 0.0f, 1.0f);**  **glClear(GL\_COLOR\_BUFFER\_BIT);**  **glLineWidth(2.5);**  **glBegin(GL\_LINES);**  **glColor3f(1.0f, 1.0f, 1.0f);**  **glVertex2f(0.0f, 0.0f);**  **glVertex2f(0.6f, 0.0f);**  **glVertex2f(0.6f, 0.0f);**  **glVertex2f(0.6f, 0.4f);**  **glVertex2f(0.6f, 0.4f);**  **glVertex2f(0.0f, 0.4f);**  **glVertex2f(0.0f, 0.0f);**  **glVertex2f(0.0f, 0.4f);**  **glEnd();**  **glFlush();**  **}**  **int main(int argc, char\*\* argv) {**  **glutInit(&argc, argv);**  **glutCreateWindow("OpenGL Setup");**  **glutInitWindowSize(520, 520);**  **glutDisplayFunc(display);**  **glutMainLoop();**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-** |

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| **Question-**  Draw the object- |
| **Graph Plot (Picture)-** |
| **Code-**  **#ifdef \_\_APPLE\_\_**  **#include <GLUT/glut.h>**  **#else**  **#include <GL/glut.h>**  **#endif**  **#include <stdlib.h>**  **void display() {**  **glClearColor(0.0f, 0.0f, 0.0f, 1.0f);**  **glClear(GL\_COLOR\_BUFFER\_BIT);**  **glLineWidth(2.5);**  **glBegin(GL\_POLYGON);**  **glColor3f(1.0f, 0.0f, 0.0f);**  **glVertex2f(0.0f, 0.0f);**  **glVertex2f(0.8f, 0.0f);**  **glVertex2f(0.8f, 0.0f);**  **glVertex2f(0.6f, 0.5f);**  **glVertex2f(0.6f, 0.5f);**  **glVertex2f(0.2f, 0.5f);**  **glVertex2f(0.0f, 0.0f);**  **glVertex2f(0.2f, 0.5f);**  **glEnd();**  **glFlush();**  **}**  **int main(int argc, char\*\* argv) {**  **glutInit(&argc, argv);**  **glutCreateWindow("OpenGL Setup");**  **glutInitWindowSize(520, 520);**  **glutDisplayFunc(display);**  **glutMainLoop();**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-** |

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| **Question-**  Draw the object-  Octagon Shape | Area & Angles - Video & Lesson Transcript | Study.com |
| **Graph Plot (Picture)-** |
| **Code-**  **#ifdef \_\_APPLE\_\_**  **#include <GLUT/glut.h>**  **#else**  **#include <GL/glut.h>**  **#endif**  **#include <stdlib.h>**  **void display() {**  **glClearColor(1.0f, 1.0f, 1.0f, 1.0f);**  **glClear(GL\_COLOR\_BUFFER\_BIT);**  **glLineWidth(2.5);**  **glBegin(GL\_POLYGON);**  **glColor3f(1.0f, 0.0f, 0.0f);**  **glVertex2f(-0.4f, -0.8f);**  **glVertex2f(0.4f, -0.8f);**  **glVertex2f(0.4f, -0.8f);**  **glVertex2f(0.8f, -0.4f);**  **glVertex2f(0.8f, -0.4f);**  **glVertex2f(0.8f, 0.4f);**  **glVertex2f(0.8f, 0.4f);**  **glVertex2f(0.4f, 0.8f);**  **glVertex2f(0.4f, 0.8f);**  **glVertex2f(-0.4f, 0.8f);**  **glVertex2f(-0.4f, 0.8f);**  **glVertex2f(-0.8f, 0.4f);**  **glVertex2f(-0.8f, 0.4f);**  **glVertex2f(-0.8f, -0.4f);**  **glVertex2f(-0.8f, -0.4f);**  **glVertex2f(-0.4f, -0.8f);**  **glEnd();**  **//Outline**  **glBegin(GL\_LINES);**  **glColor3f(0.0f, 0.0f, 0.0f);**  **glVertex2f(-0.4f, -0.8f);**  **glVertex2f(0.4f, -0.8f);**  **glVertex2f(0.4f, -0.8f);**  **glVertex2f(0.8f, -0.4f);**  **glVertex2f(0.8f, -0.4f);**  **glVertex2f(0.8f, 0.4f);**  **glVertex2f(0.8f, 0.4f);**  **glVertex2f(0.4f, 0.8f);**  **glVertex2f(0.4f, 0.8f);**  **glVertex2f(-0.4f, 0.8f);**  **glVertex2f(-0.4f, 0.8f);**  **glVertex2f(-0.8f, 0.4f);**  **glVertex2f(-0.8f, 0.4f);**  **glVertex2f(-0.8f, -0.4f);**  **glVertex2f(-0.8f, -0.4f);**  **glVertex2f(-0.4f, -0.8f);**  **glEnd();**  **glFlush();**  **}**  **int main(int argc, char\*\* argv) {**  **glutInit(&argc, argv);**  **glutCreateWindow("OpenGL Setup");**  **glutInitWindowSize(520, 520);**  **glutDisplayFunc(display);**  **glutMainLoop();**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-** |

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| **Question-**  Draw the object- |
| **Graph Plot (Picture)-** |
| **Code-**  **#ifdef \_\_APPLE\_\_**  **#include <GLUT/glut.h>**  **#else**  **#include <GL/glut.h>**  **#endif**  **#include <stdlib.h>**  **void display() {**  **glClearColor(1.0f, 1.0f, 1.0f, 1.0f);**  **glClear(GL\_COLOR\_BUFFER\_BIT);**  **glLineWidth(2.0);**  **glBegin(GL\_LINES);**  **glColor3f(0.0f, 0.0f, 0.0f);**  **glVertex2f(0.0f, 10.0f);**  **glVertex2f(0.0f, -10.0f);**  **glEnd();**  **glBegin(GL\_LINES);**  **glColor3f(0.0f, 0.0f, 0.0f);**  **glVertex2f(-10.0f, 0.0f);**  **glVertex2f(10.0f, 0.0f);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3f(0.0f, 0.7f, 0.0f);**  **glVertex2f(9.5f, 4.0f);**  **glVertex2f(7.0f, 6.5f);**  **glVertex2f(7.0f, 5.0f);**  **glVertex2f(2.0f, 5.0f);**  **glVertex2f(2.0f, 3.0f);**  **glVertex2f(7.0f, 3.0f);**  **glVertex2f(7.0f, 1.5f);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3f(1.0f, 0.0f, 0.0f);**  **glVertex2f(-6.0f, 6.0f);**  **glVertex2f(-6.0f, 2.0f);**  **glVertex2f(-2.0f, 2.0f);**  **glVertex2f(-2.0f, 6.0f);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3f(0.58f, 0.0f, 0.83f);**  **glVertex2f(-2.0f, -1.5f);**  **glVertex2f(-6.0f, -4.0f);**  **glVertex2f(-2.0f, -6.5f);**  **glEnd();**  **glBegin(GL\_POLYGON);**  **glColor3f(1.0f, 1.0f, 0.0f);**  **glVertex2f(4.0f, -2.0f);**  **glVertex2f(1.5f, -6.0f);**  **glVertex2f(6.5f, -6.0f);**  **glEnd();**  **glFlush();**  **}**  **int main(int argc, char\*\* argv) {**  **glutInit(&argc, argv);**  **glutCreateWindow("OpenGL Setup");**  **glutInitWindowSize(520, 520);**  **glutDisplayFunc(display);**  **gluOrtho2D(-15,15,-15,15);**  **glutMainLoop();**  **return 0;**  **}** |
| **Output Screenshot (Full Screen)-** |