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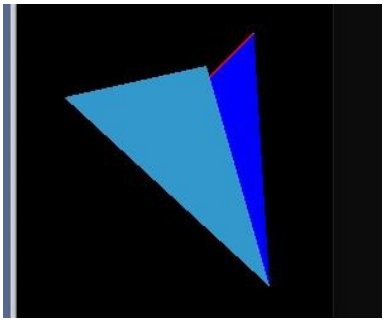
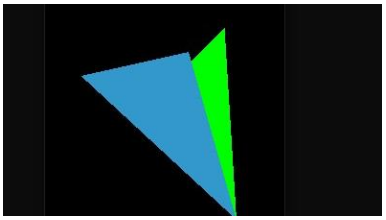
Nim : D0221081
Kelas : Inf G

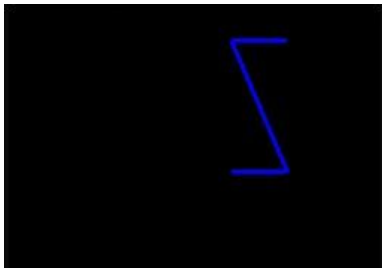
Latihan1:



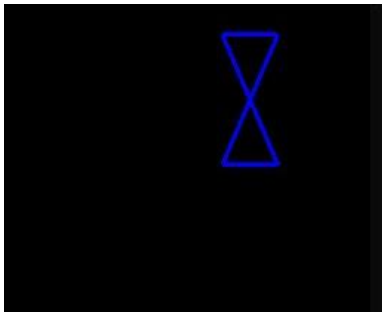


Latihan2 :

1. glBegin(GL_LINE_STRIP); (Titik awal tidak terhubung dengan titik akhir) glVertex2i(20, 10); glVertex2i(50, 10); glVertex2i(20, 80); glVertex2i(50, 80); glEnd();

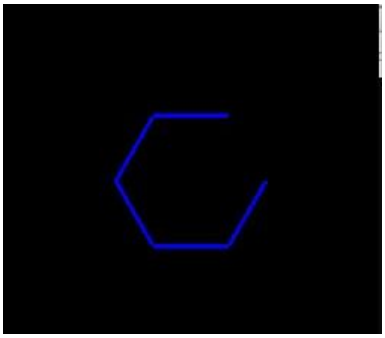


2. glBegin(GL_LINE_LOOP); (titik awal hingga titik akhir terhubung) glVertex2i(20, 10); glVertex2i(50, 10); glVertex2i(20, 80); glVertex2i(50, 80); glEnd();



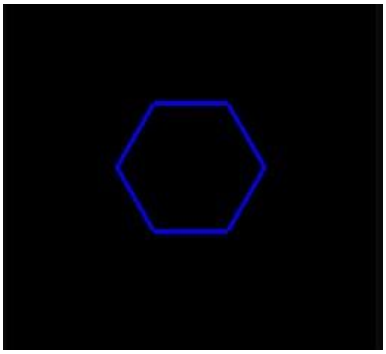
3. n-gon simetris/beraturan

```
glBegin(GL_LINE_STRIP);
   glVertex2f(40 * cos(2 * 3.14159265 * 1 / 6), 40 * sin(2 *
3.14159265 * 1 / 6));
   glVertex2f(40 * cos(2 * 3.14159265 * 2 / 6), 40 * sin(2 *
3.14159265 * 2 / 6));
   glVertex2f(40 * cos(2 * 3.14159265 * 3 / 6), 40 * sin(2 *
3.14159265 * 3 / 6));
   glVertex2f(40 * cos(2 * 3.14159265 * 4 / 6), 40 * sin(2 *
3.14159265 * 4 / 6));
   glVertex2f(40 * cos(2 * 3.14159265 * 5 / 6), 40 * sin(2 *
3.14159265 * 5 / 6));
   glVertex2f(40 * cos(2 * 3.14159265 * 6 / 6), 40 * sin(2 *
3.14159265 * 6 / 6));
glEnd();
```



4. Tanpa menggunakan Inputan glBegin(GL_LINE_LOOP);

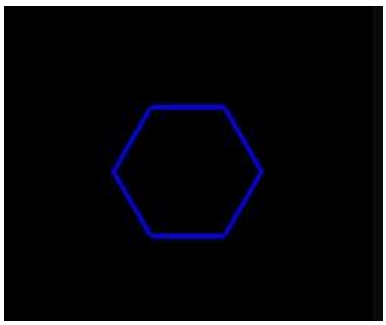
```
glVertex2f(40 * cos(2 * 3.14159265 * 1 / 6), 40 * sin(2 * 3.14159265
*  1 / 6));
glVertex2f(40 * cos(2 * 3.14159265 * 2 / 6), 40 * sin(2 * 3.14159265
*  2 / 6));
glVertex2f(40 * cos(2 * 3.14159265 * 3 / 6), 40 * sin(2 * 3.14159265
*  3 / 6));
glVertex2f(40 * cos(2 * 3.14159265 * 4 / 6), 40 * sin(2 * 3.14159265
*  4 / 6));
glVertex2f(40 * cos(2 * 3.14159265 * 5 / 6), 40 * sin(2 * 3.14159265
*  5 / 6));
glVertex2f(40 * cos(2 * 3.14159265 * 6 / 6), 40 * sin(2 * 3.14159265
*  6 / 6)); glEnd();
```



5. Menggunakan Inputan (fungsi ngon)

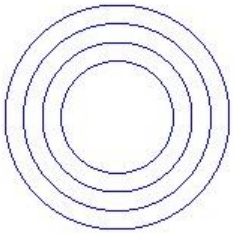
```
void ngon(int n, float cx, float cy, float radius, float rotAngle)
{
double angle, angleInc; int k;
if (n < 3)return;
angle = rotAngle * 3.14159265 / 180; angleInc = 2 * 3.14159265 / n; //titik
pertama
```

```
glVertex2f(radius * cos(angle) + cy, radius * sin(angle) + cy);

//titik berikutnya for (k = 0; k < n; k++) { angle += angleInc;
glVertex2f(radius * cos(angle) + cy, radius * sin(angle) + cy);
} }

void display(void) {
glClear(GL_COLOR_BUFFER_BIT); glBegin(GL_LINE_STRIP);
ngon(6, 10, 0, 40, 180);
// 6 adalah seginya,40 adlh radiusnya, 180 adlh derajat glEnd();
```

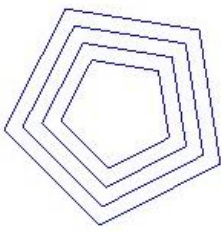


Latihan 3
Video 05 :

1. glClear(GL_COLOR_BUFFER_BIT); for (int a = 60; a >= 30; a -= 10) { glBegin(GL_LINE_LOOP); ngon(500, 0, 0, a, 45); glEnd(); }

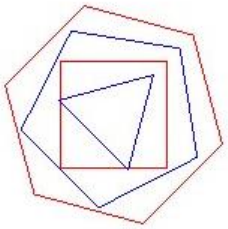


2. glClear(GL_COLOR_BUFFER_BIT); for (int a = 60; a >= 30; a -= 10) { glBegin(GL_LINE_LOOP); ngon(5, 0, 0, a, 45); glEnd();



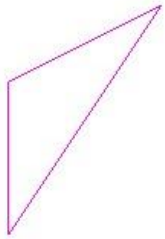
3. Percabangan segi = 6;

```
for (int a = 60; a >= 30; a -= 10) {     if (segi % 2 == 0) {
glBegin(GL_LINE_LOOP);          glColor3f(1.0, 0.0, 0.0);
ngon(segi, 0, 0, a, 45);        glEnd();     }     else {
glBegin(GL_LINE_LOOP);          glColor3f(0.0, 0.0, 1.0);
ngon(segi, 0, 0, a, 45);        glEnd();
   } segi--;
```

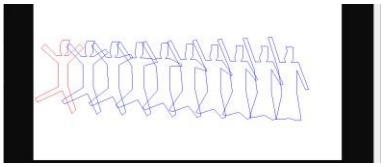


4. Struktur Data Array

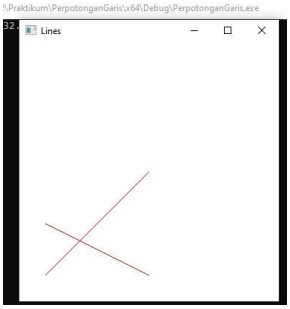
```
int data[3][2] = { {0,-40},{0,40},{80,80} }; glBegin(GL_LINE_LOOP);
glColor3f(1.0, 0.0, 1.0);
   for (int s = 0; s < 3; s++) {     glVertex2i(data[s][0], data[s][1]);
}     glEnd();
```



5. Vektor



6. Perpotongan Garis



7. Menghitung perpotongan garis