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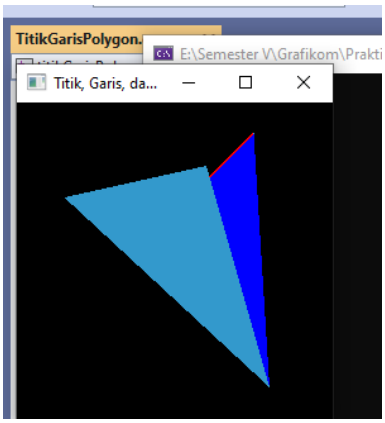
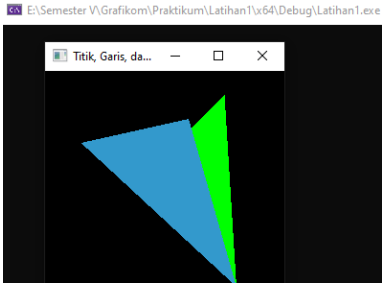
Latihan1

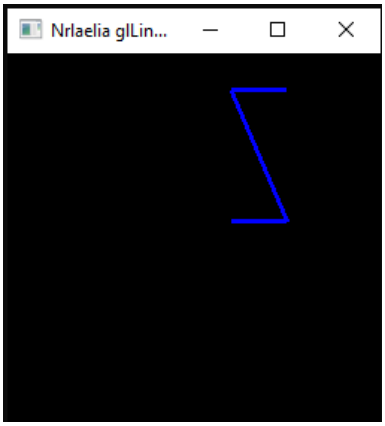




Latihan2

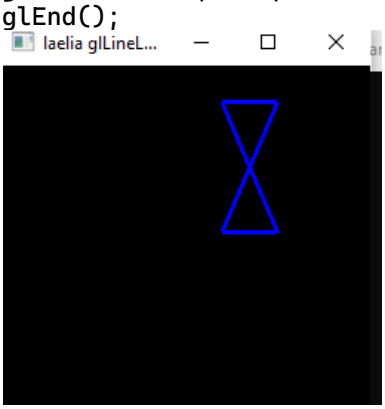
1. `glBegin(GL_LINE_STRIP);` (Titik awal tidak terhubung dengan titik akhir)

```
glVertex2i(20, 10);
glVertex2i(50, 10);
glVertex2i(20, 80);
glVertex2i(50, 80);
glEnd();
```



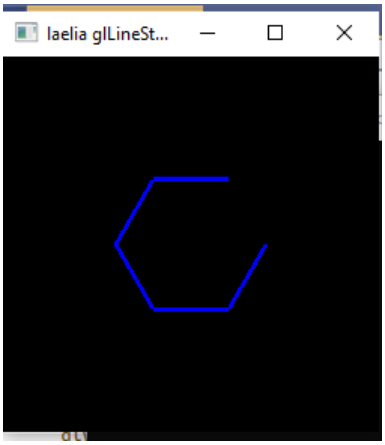
2. `glBegin(GL_LINE_LOOP);` (titik awal hingga titik akhir terhubung)

```
glVertex2i(20, 10);
glVertex2i(50, 10);
glVertex2i(20, 80);
glVertex2i(50, 80);
glEnd();
```



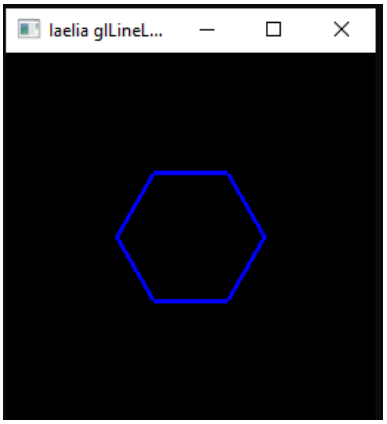
3. n-gon simetris/beraturan

```
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

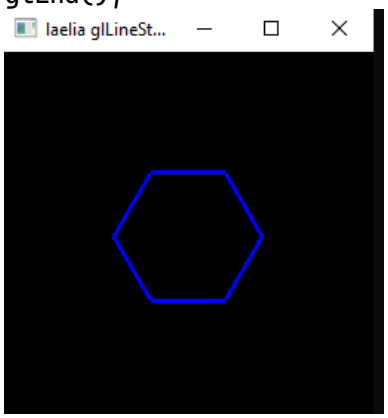
```
glBegin(GL_LINE_LOOP);
glVertex2f(40 * cos(2 * 3.14159265 * 1 / 6), 40 * sin(2 * 3.14159265
* 1 / 6));
glVertex2f(40 * cos(2 * 3.14159265 * 2 / 6), 40 * sin(2 * 3.14159265
* 2 / 6));
glVertex2f(40 * cos(2 * 3.14159265 * 3 / 6), 40 * sin(2 * 3.14159265
* 3 / 6));
glVertex2f(40 * cos(2 * 3.14159265 * 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)

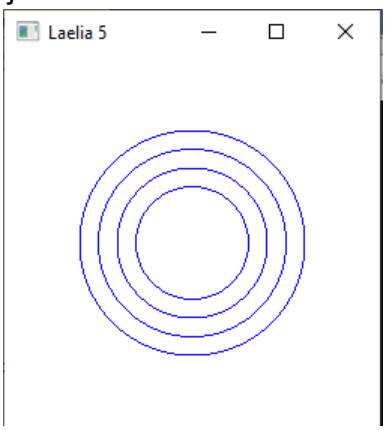
```
void ngon(int n, float cx, float cy, float radius, float
rotAngle) {
double angle, angleInc;
int k;

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();
```

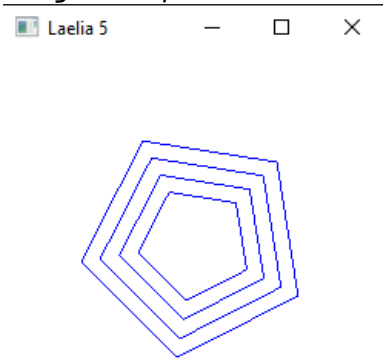


Latihan 3 (Video 05)

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();
}
```

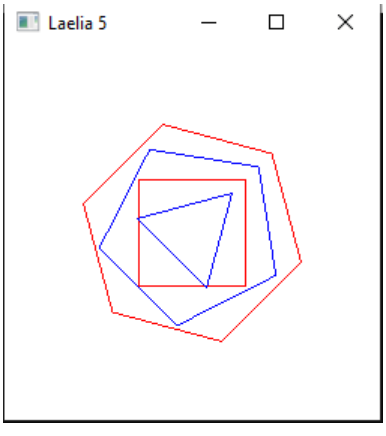


2.
```
glClear(GL_COLOR_BUFFER_BIT);
 for (int a = 60; a >= 30; a -= 10) {
    glBegin(GL_LINE_LOOP);
    ngon(5, 0, 0, a, 45);
    glEnd();
```



3. Percabangan

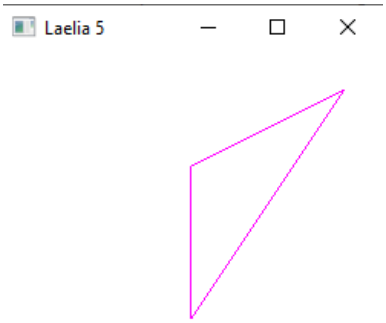
```
segi = 6;

 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--;
```



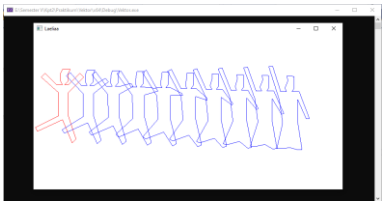
4. Struktur Data Array

```
int data[3][2] = { {0,-40},{0,40},{80,80} };
glBegin(GL_LINE_LOOP);
    glColor3f(1.0, 0.0, 1.0);
```

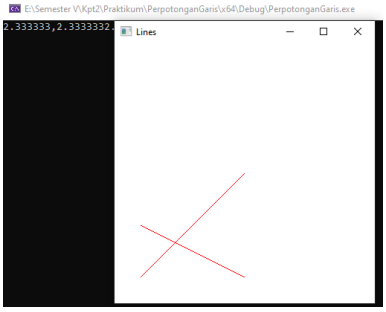
```
    for (int s = 0; s < 3; s++) {
    glVertex2i(data[s][0], data[s][1]);
}
    glEnd();
```



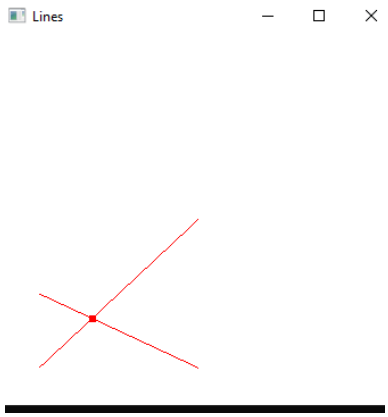
5. Vektor



6. Perpotongan Garis



7. Menghitung perpotongan garis


Lines