



Contoh Program OpenGL

Achmad Basuki
Politeknik Elektronika Negeri Surabaya





Program-program ini diletakkan di dalam fungsi `userdraw()`

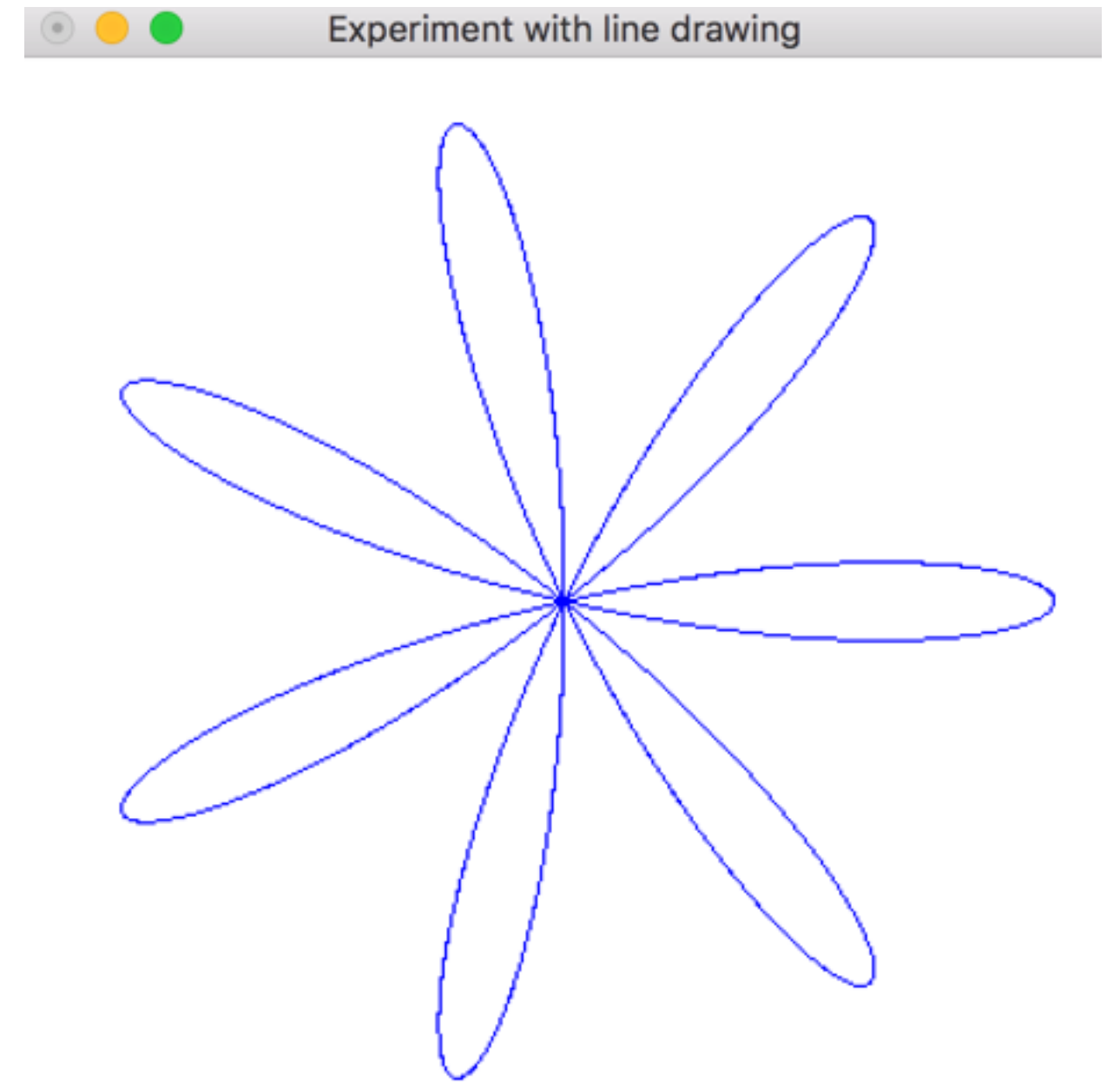
Langit Berwarna



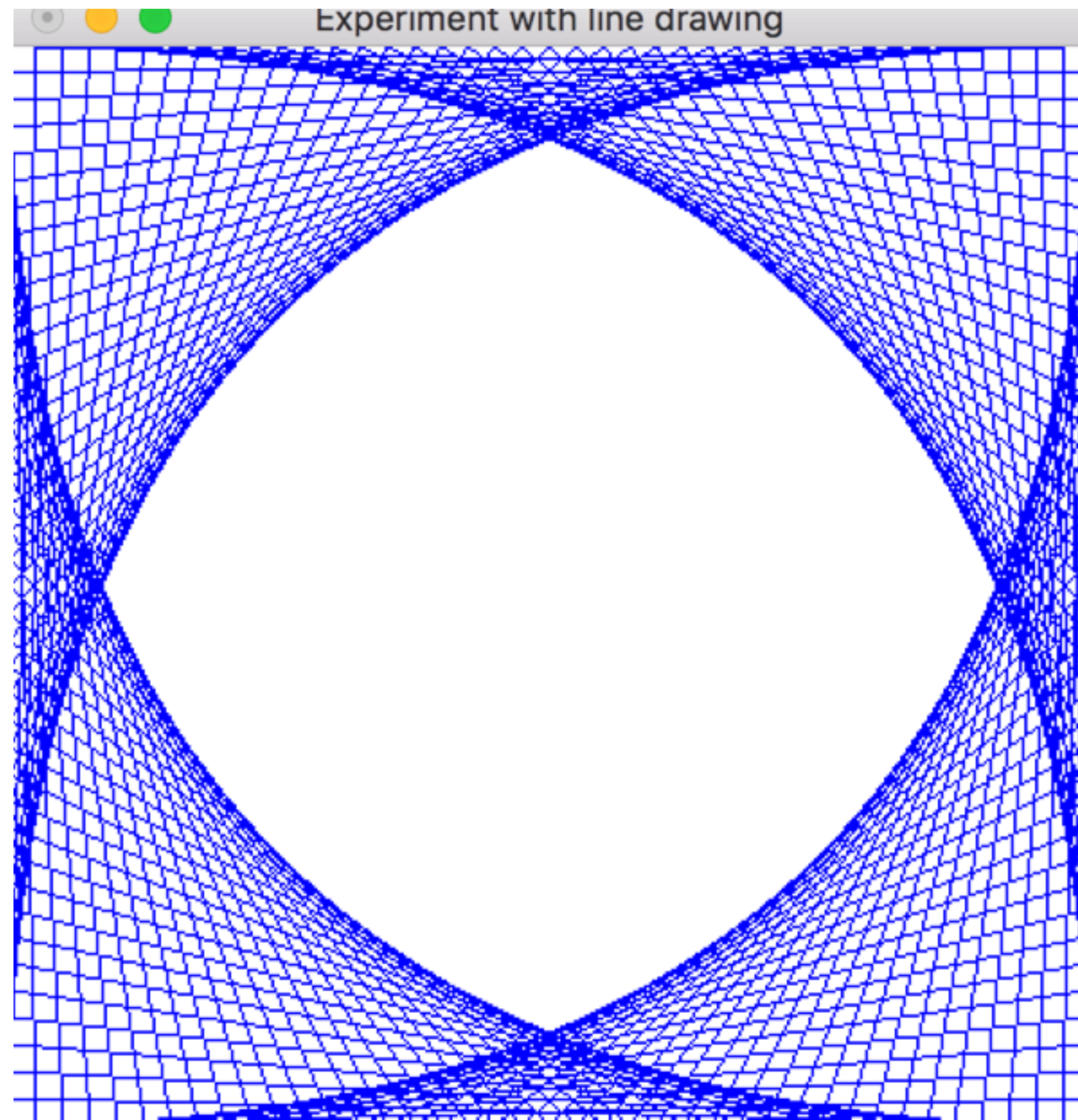
```
point2D_t langit[4]={{0,0},{400,0},{400,400},{0,400}};  
color_t wlangit[4]={{1,1,1},{1,1,1},{0,0.2,0.5},{0,0.2,0.5}};  
gradatePolygon(langit,4,wlangit);
```

Bunga Banyak Helai

```
point2D_t p[360];  
float a;  
for(int i=0;i<360;i++){  
    a=float(i/67.3);  
    p[i].x=200+180*cos(7*a)*cos(a);  
    p[i].y=200+180*cos(7*a)*sin(a);  
}  
setColor(0, 0, 1);  
drawPolyline(p, 360);
```

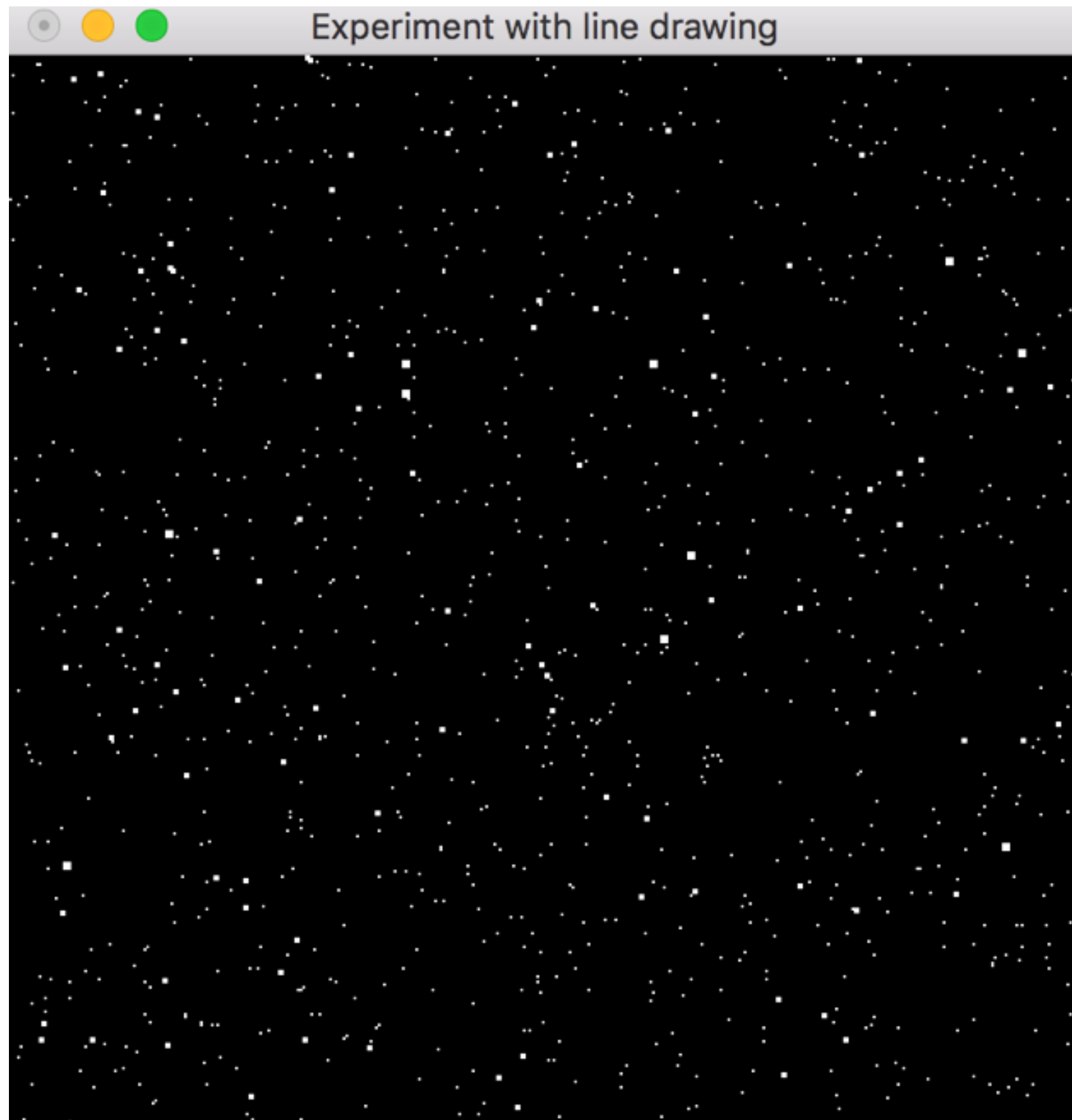


Jaring Jaring



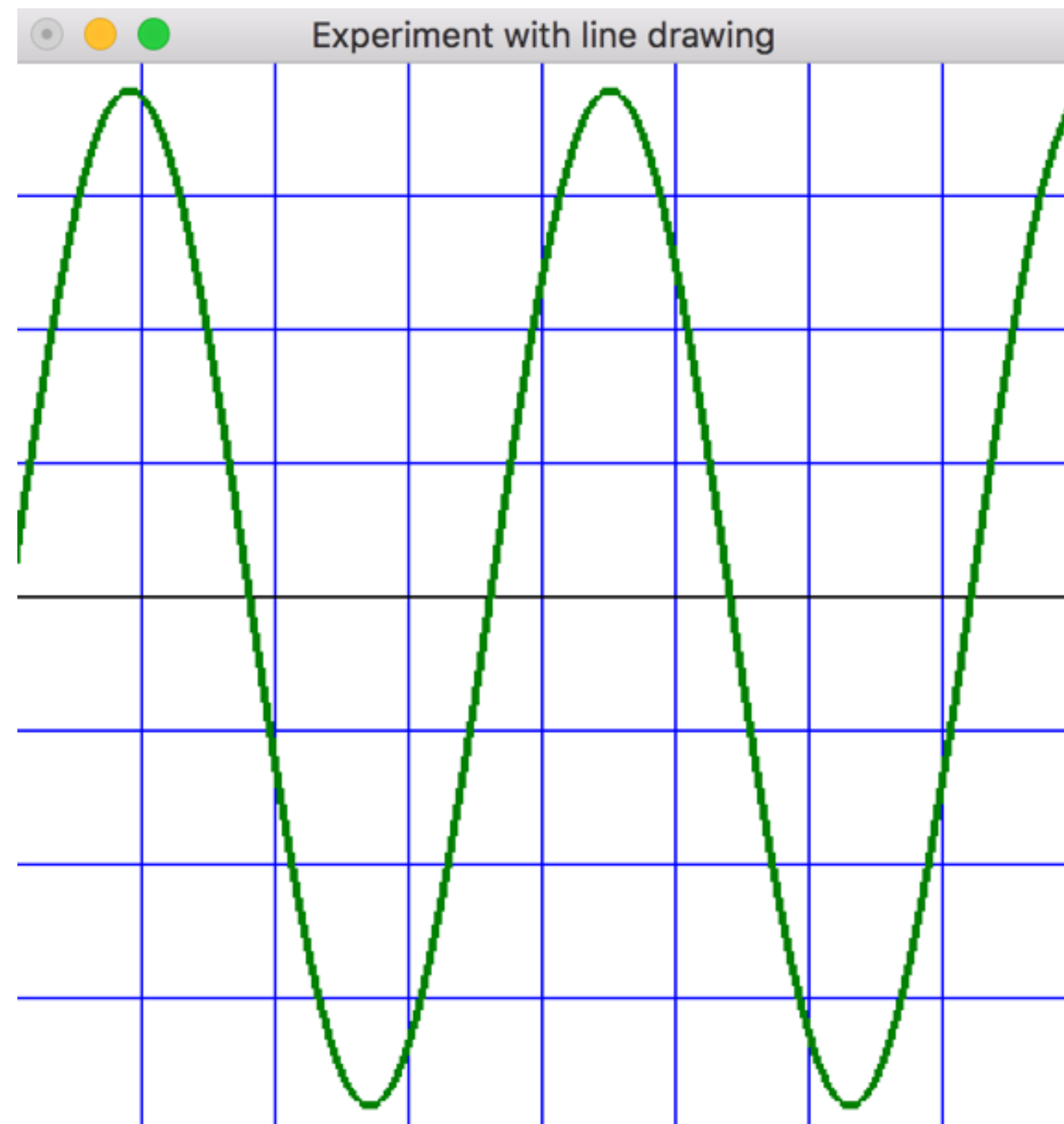
```
float x;  
setColor(0, 0, 1);  
for (x=0; x<400; x+=10) {  
    drawLine(x, 0, 400, x);  
    drawLine(400, x, 400-x, 400);  
    drawLine(400-x, 400, 0, 400-x);  
    drawLine(0, 400-x, x, 0);  
}
```

Bintang Bintang



```
float x,y;
glClearColor(0,0,0,0);
setColor(1,1,1);
glPointSize(1);
for(int i=0;i<1000;i++){
    x=(float)rand()*400/RAND_MAX;
    y=(float)rand()*400/RAND_MAX;
    drawDot(x,y);
}
glPointSize(2);
for(int i=0;i<100;i++){
    x=(float)rand()*400/RAND_MAX;
    y=(float)rand()*400/RAND_MAX;
    drawDot(x,y);
}
glPointSize(3);
for(int i=0;i<10;i++){
    x=(float)rand()*400/RAND_MAX;
    y=(float)rand()*400/RAND_MAX;
    drawDot(x,y);
}
```

Fungsi Sinus



```
float x,y;
glLineWidth(1);
setColor(0,0,1);
for(x=0;x<=400;x+=50){
    drawLine(x,0,x,400);
    drawLine(0,x,400,x);
}
setColor(0,0,0);
drawLine(0,200,400,200);

point2D_t p[401];
for(int i=0;i<=400;i++){
    x=(float)i;
    y=200+190*sin(2*x/57.3);
    p[i].x=x;
    p[i].y=y;
}
setColor(0,0.5,0);
glLineWidth(3);
drawPolyline(p, 400);
```

Bentuk Bintang

```
point2D_t p[360];  
float r=80;  
for(int i=0;i<10;i++){  
    if(r==150) r=80;  
    else r=150;  
    p[i].x=200+r*cos((float)i*36/57.3);  
    p[i].y=200+r*sin((float)i*36/57.3);  
}  
setColor(0,0,1);  
drawPolygon(p, 10);
```

Experiment with line drawing

