function setPixel(context, x,y, color){

context.fillStyle = color;

context.fillRect( x, y, 1, 1 );

}

function dibujarLinea(context,color){

var x,y,d,dx,dy,aux,dy2,dx2,suma,resta;

if(this.x0 > this.x1)

{

aux = this.x1;

this.x1 = this.x0;

this.x0 = aux;

aux = this.y1;

this.y1 = this.y0;

this.y0 = aux;

}

if(this.x0 == this.x1)

{

if(this.y0 > this.y1)

{

aux = this.y1;

this.y1 = this.y0;

this.y0 = aux;

}

x = this.x0;

y = this.y0;

while ( y <= this.y1)

{

this.setPixel(context,x,y,color);

y = y + 1;

}

}

if( this.y0 == this.y1)

{

x = this.x0;

y = this.y0;

while (x <= this.x1)

{

this.setPixel(context,x,y,color);

x = x +1;

}

}

dy = this.y1 - this.y0;

dx = this.x1 - this.x0;

dy2 = (dy << 1);

dx2 = (dx << 1);

resta = dy2 - dx2;

suma = dy2 + dx2;

x = this.x0;

y = this.y0;

if (dy >= 0)

{

if (dy <= dx)

{

d = dy2 - dx;

while (x <= this.x1)

{

this.setPixel(context,x,y,color);

if (d <= 0)

{

d += dy2;

}

else

{

y++;

d += resta;

}

x++;

}

}

else

{

d = dx2 - dy;

while (y <= this.y1)

{

this.setPixel(context,x,y,color);

if (d <= 0)

{

d += dx2;

}

else

{

x++;

d -= resta;

}

y++;

}

}

}

else

{

if (dx >= -dy)

{

d = - dy2 - dx;

while (x <= this.x1)

{

this.setPixel(context,x,y,color);

if (d <= 0)

{

d -= dy2;

}

else

{

y--;

d -= suma;

}

x++;

}

}

else

{

d = dx2 + dy;

while (y >= this.y1)

{

this.setPixel(context,x,y,color);

if (d <= 0)

{

d += dx2;

}

else

{

x++;

d += suma;

}

y--;

}

}

}

}

function dibujarLineaCanvas(context, color){

context.beginPath();

context.moveTo(this.x0, this.y0);

context.lineTo(this.x1, this.y1);

var auxColor = context.strokeStyle;

context.strokeStyle = color;

context.stroke();

context.strokeStyle = auxColor;

}

function Linea(x0, y0, x1, y1){

this.x0 = x0;

this.y0 = y0;

this.x1 = x1;

this.y1 = y1;

this.color;

this.setPixel = setPixel;

this.dibujarlinea = dibujarLinea;

this.dibujarLineaCanvas = dibujarLineaCanvas;

}