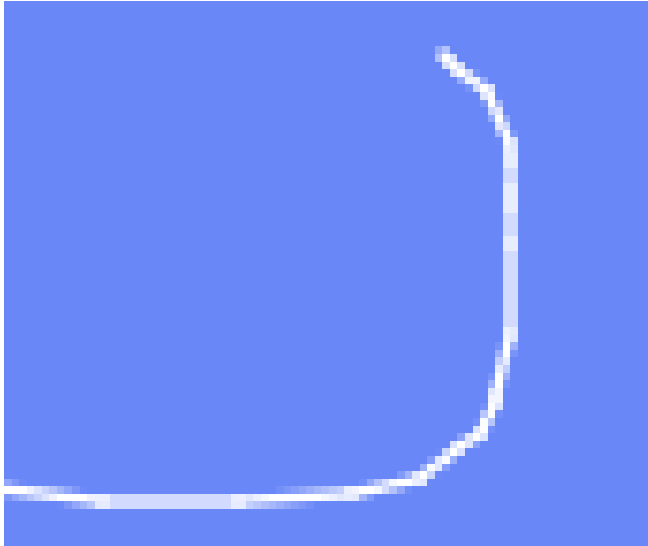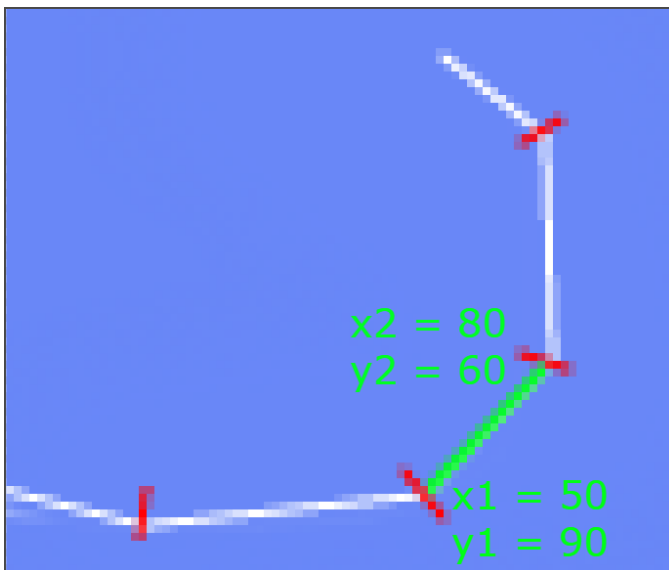# Drawing Line Objects

When a shape is drawn like this

It is done so by putting multiple straight lines onto the screen. Each line has 2 x coordinates and 2 y coordinates.

We want to draw lines only when the mouse is down. We do this with an if statement

if love.mouse.isDown(1) then

And obtain the x and y coordinates with functions like the following

drawn_x = love.mouse.getX()

But we need to have 2 x and y coordinates in order to draw a line. Because of this we have the variables *oldx* and *oldy* originally set to nil.
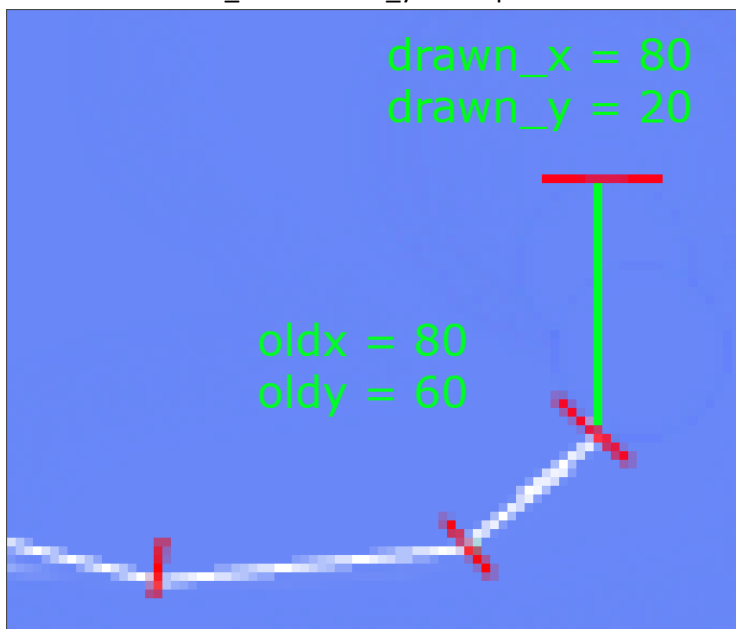After calling *love.mouse.getX()* check if oldx is set to nil

   if oldx then

If oldx is not nil then draw a new line with drawn_x and drawn_y as the x1 and y1 coordinates, and oldx and oldy as the y1 and y2 coordinates. After the if statement set oldx and oldy to be equal to drawn_x and drawn_y, this is so you will have continuous lines.
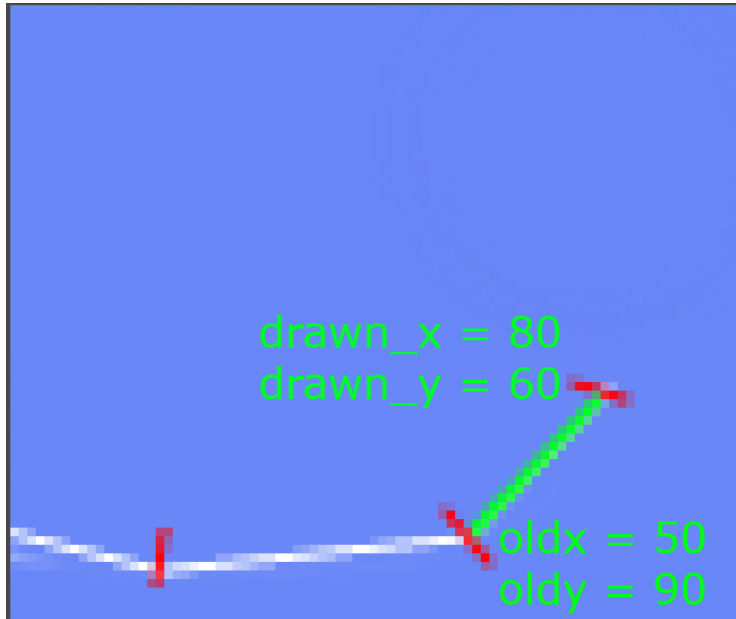
Notice how drawn_x and drawn_y in the picture above become old_x and old

Setting oldx and oldy to nil

When oldx and oldy are set to nil
after the mouse is released

When oldx and oldy are not set to nil
oldx and oldy remain set to the last mouse
position so when drawn_x and drawn_y are
set, a line is drawn from the previous position