

Draw - a - Car with the Manipulatives

LAB 00b: Finish the Draw-a-Car Exercise

It looks like this when you run it.

This is what Processing looks like when you run it.

I don't want you to run it right now.

I just want you to see what happens when you run it.

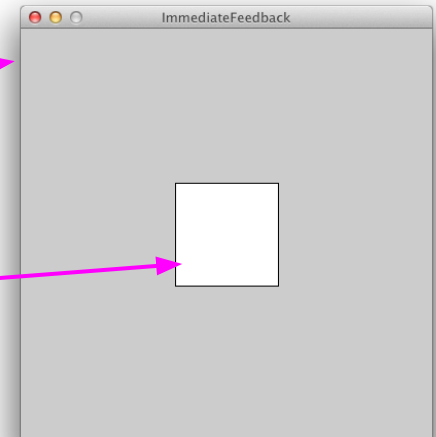
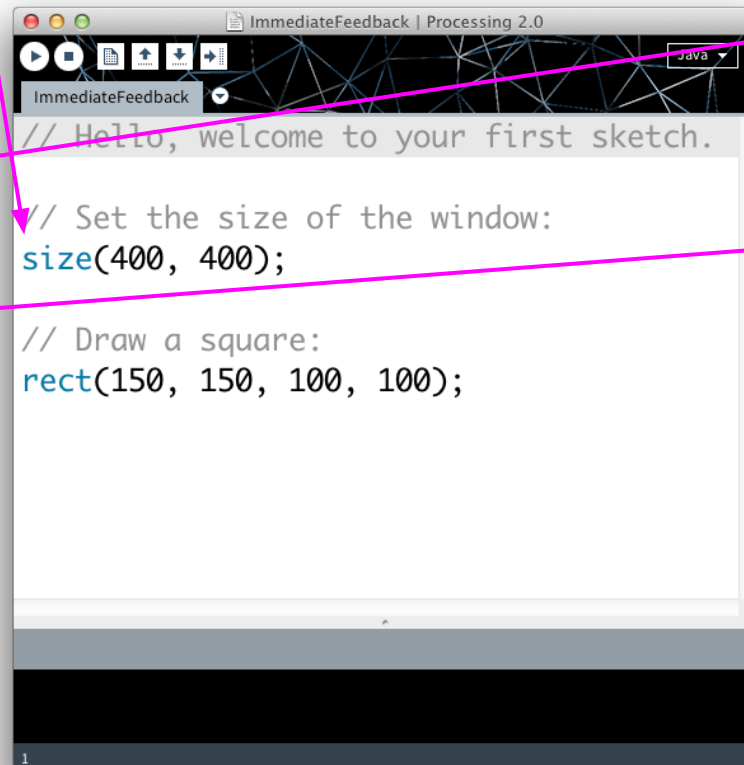
See how I specified a canvas with **size** of width=400, and height=400?

Processing dutifully drew a canvas with 400 x 400 points of space in it.

It's the window with the gray background.

Now, I also drew a rectangle, with a left corner at x=150, y=150.

It has a width of 100, and a height of 100.



Strange coordinate system.

Okay, here's where it gets weird.

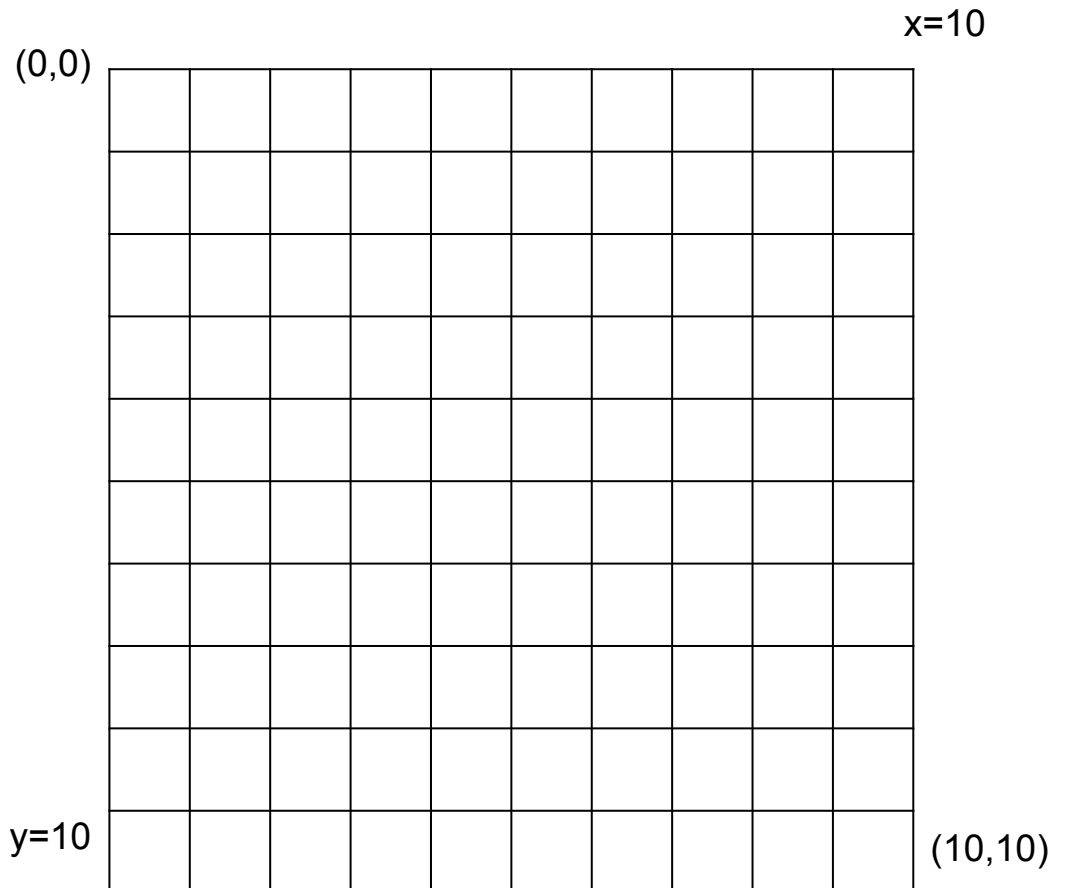
The coordinate system is not like the one you used in Geometry class.

The y-axis counts increasing y-values as you go down.

So, looking at this,

where would you plot the rectangle specified by a card such as:

rect(2, 4, 6, 3);

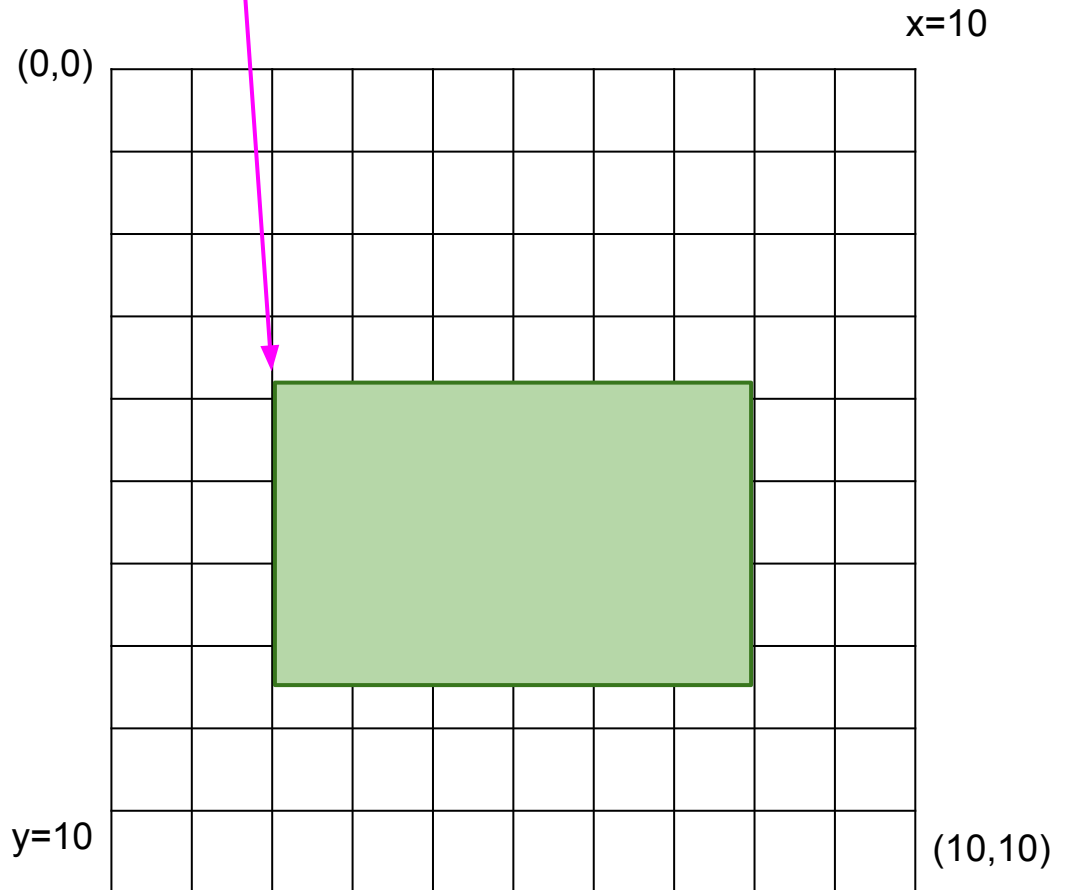


Here's that rectangle.

This is the plot of `rect(2, 4, 6, 4);`

You can see that the top-left corner of the rectangle is positioned at (2,4).

The rectangle has a width of 6, and a height of 4.



Create your recipe.

Create a "recipe" for drawing a car.

Check out the **Simple Shapes** section of this tutorial (<http://processing.org/tutorials/drawing/>) if you'd like to find out more about how each instruction works. The included instructions are:

- **size**(width, height)
- **rect**(top-left-x, top-left-y, width, height)
- **ellipse**(center-x, center-y, width, height)
- **line**(start-x, start-y, end-x, end-y)

Note, you don't have a card for the **point()** function. Although one exists in Processing (and shows up in the tutorial link), we aren't using it here for simplicity.

PRO-TIP

Create your canvas first, with the **size()** instruction. Then add **rect()**, **ellipse()**, and **line()** instructions to create your car. FYI, the Processing coordinate system is not the same as you are probably used to. It is like the iOS coordinate system, with Y increasing as you go down.

Either write your instructions out.