*What are we doing here?*

This is a follow-up to activity 06, designed as a bridge between A06 and A07, on the road to the final project.

*What does this in-class activity demonstrate?*

* Your ability to solve problems with code.
* Your ability to translate a set of instructions from natural language into a programming language.
* Your ability to program in p5.js, including:
  + Creating a canvas, demonstrating an understanding of horizontal & vertical axis
  + Working with grayscale
  + Setting the color of a background
  + Using common functions for drawing 2D primitives: line, rectangle, triangle, ellipse
  + Working with functions that alter properties, including stroke weight, stroke color
* Your ability to produce original graphic compositions with 2D primitives
* Your ability to consult outside resources (documentation, textbooks, web searches) to solve programming problems

*This feels a lot like the work we were asked to do in Activity 06 (A06).*

Yes! Definitely!

*I didn’t do A06*.

Well, here’s your chance!

*I already did A06.*

This should be easy, then.

*Why are you making us do the same thing twice?*

Just as there’s a lot of value in the muscle memory of typing and re-typing code, there’s a lot of value in solving problems you’ve solved once before already. Overtime, you accrete a body of knowledge and understanding, as well as confidence – which is a huge and wildly underrated

*Am I allowed to look in the p5.js text book?*

Absolutely.

*Can I search Google for the answer?*

Yes, but if you use someone’s else code, use a comment ‘//’ to say that and link to where you found the code.

*Am I allowed to ask other people for help?*

Sure, but let’s not just give each other the answer. Gesture to where the answer can be found.

Step Zero

1. Open OpenProcessing & login. Go to our class. Start a new sketch in Activity 06 (part 03). Save the sketch.

Step One: Setup

1. Create a canvas that is the height and width of the window.
2. Make it a darker shade of gray.

Step Two: Set the stage

1. Draw a 1px black line across the horizontal axis of the canvas.
2. Draw a 1px black line across the vertical axis of the canvas.

You should now have one line that runs down the middle of your canvas (horizontal), and one line that runs down the center of your canvas (vertical). These bisecting lines should meet in the center of your canvas. They form four *quadrants* on your canvas - upper left, upper right, lower left, lower right. Essentially, four canvases within the canvas.

Step Three: Compositions

* Upper left: fill the entire quadrant with a white rectangle.
* Upper right: place a black triangle with a thin white border anywhere inside the quadrant, but one vertex (tip) must be touching the bottom border of the quadrant.
* Lower left: put a grey circle with a thick black border in the center of the quadrant.
* Lower right: put a white line with rounded edges diagonally across the quadrant; from upper left to lower right. The thickness should be twice as thick as the border you used for the circle