For this project, you'll create a fractal, using a recursive process, as we've seen with the Koch Snowflake and the Sierpinski Gasket.

Choose a recursive process (I'll suggest some below). Start out with just one piece of graph paper, and do several of the steps to get a sense of how the process works, and whether this is creating a fractal at all (all the steps I suggest will, but if you make up your own, it may not), and if so, if it's one you want to pursue.

Once you choose a process, you'll have a sense of how big to make it. You may want to carefully (so that the lines match up) attach several pieces of graph paper together. Carefully mark out your beginning figure – in most cases, you'll want to start fairly large, and to have a number of squares which is easy to divide. For instance, if you choose a pattern that involves dividing into thirds, then you'll want to use a number of squares that's a power of 3 (3, 9, 27, 81, 243, etc). If it involves dividing into halves, then choose a number of squares which is a power of 2.

On the handout in class, you'll find some suggestions.

To further pursue this project, figure out the similarity dimension of the fractal (just so you know, not all fractals have fractional dimension). You can also ponder the perimeter and area, if you choose to.

Write a brief description describing the mathematics behind what you've done.