

Lab 7

- use the patterns discussed in class with the elements of the patterns filled in as specified in the handout

This process follows the additive pattern — each level adds to what was drawn in the previous level. The elements of the pattern:

Materials from class:

- slides: [fractals](#) (additive and replacement patterns)
- examples:
 - [snowman family](#) (additive pattern)
 - [Sierpinski carpet](#) (replacement pattern)
- handout: [in-class exercises](#) (solutions: #1 — additive, #2 — replacement)

Wed Materials from class:

- slides: [exam 1 redo info](#)
- slides: [fractals](#) (L-systems)
- examples: (L-systems)
 - [Koch snowflake](#)
 - [plant](#)
- handout: [in-class exercises](#) (solutions: #1 — L-systems)

Lab 7

- for the terrain –

- The base shape is a quad whose top corners are $(x1,y1)$ and $(x2,y2)$ and whose bottom corners are at the bottom edge of the window.

- use `quad()`
- if you are looking up shape-drawing commands in the Processing API, stick to those in the “2d Primitives” section

2d Primitives		
	<code>arc()</code>	Draws an arc in the display window
	<code>circle()</code>	Draws a circle to the screen
	<code>ellipse()</code>	Draws an ellipse (oval) in the display window
	<code>line()</code>	Draws a line (a direct path between two points) to the screen
	<code>point()</code>	Draws a point, a coordinate in space at the dimension of one pixel
	<code>quad()</code>	A quad is a quadrilateral, a four sided polygon
	<code>rect()</code>	Draws a rectangle to the screen
	<code>square()</code>	Draws a square to the screen
	<code>triangle()</code>	A triangle is a plane created by connecting three points

Lab 7

- *the goal of an exercise is never the particular sketch, but learning how to use the elements of Processing* (and, more generally, the elements of programming) discussed in class to create similar kinds of sketches
 - primary source for “how do I do this?” material should be the lab handout itself and the posted class materials (slides, examples, in-class exercises handouts and solutions)
 - primary source for help should be office hours and Teaching Fellows
- **you must identify help received / sources used** (other than provided class materials) **in a comment in your sketch**
- **you may not use AI, write code together with others, or copy code from elsewhere** (even if you make changes)
 - adapting examples is OK (identify the source if not from class!)
 - an example shows the structure but you have to replace the elements specific to a particular task with what is relevant for your particular task
 - ask if you need clarification!