



Outcomes		HW 0129	HW 0212	HW 0226	HW 0319	HW 0326	HW 0404	So Far
<b>1</b>	<b>Represent, model, and create visual information digitally.</b>							
<b>1a</b>	...in terms of pixels and geometric primitives.		+	+				+
<b>1b</b>	...in terms of polygon meshes: vertices, edges, and faces.				+			+
<b>1c</b>	...as a composition of multiple discrete objects (scenes).				/		+	+
<b>2</b>	<b>Manipulate and display visual information in 2D and 3D.</b>							
<b>2a</b>	Apply transforms to 2D and 3D objects.						+	+
<b>2b</b>	Project 3D objects onto a 2D viewport.						+	+
<b>2c</b>	Perform color and light computations.							
<b>2d</b>	Perform clipping and hidden surface removal (HSR).							
<b>3</b>	<b>Use and develop computer graphics APIs in both 2D and 3D.</b>							
<b>3a</b>	Animate scenes in 2D and 3D.							
<b>3b</b>	Implement 2D graphics primitives such as line segments, circles, and polygon fills.			+				+
<b>3c</b>	Perform bit-level color manipulation.			+				+
<b>3d</b>	Develop a library of geometric primitives, operations, and matrix transformations.						/	/
<b>3e</b>	Render a 3D scene using programmable shaders.							
<b>4</b>	<b>Follow academic and technical best practices throughout the course.</b>							
<b>4a</b>	Write syntactically correct, functional code.	+	+	+		+		+
<b>4b</b>	Demonstrate proper separation of concerns.	+			+	+	+	+
<b>4c</b>	Write code that is easily understood by programmers other than yourself.	+	+		+		+	+
<b>4d</b>	Use available resources and documentation to find required information.	+	+	+	+	+	+	+
<b>4e</b>	Use version control effectively.	+	+	+	+		+	+
<b>4f</b>	Meet all designated deadlines.	+		+	+	+	+	+

## Totals

+	13
	3
/	1
-	0
O	0

Your now-recursive composite object implementation has been taken into consideration for outcomes *1c* and *3d*. No need to resubmit HW 0319 (as I presume you can see by how the proficiencies end up cumulatively). As for the cumulative *3d*, the broken unit tests are quite significant and so that is the overriding factor.