

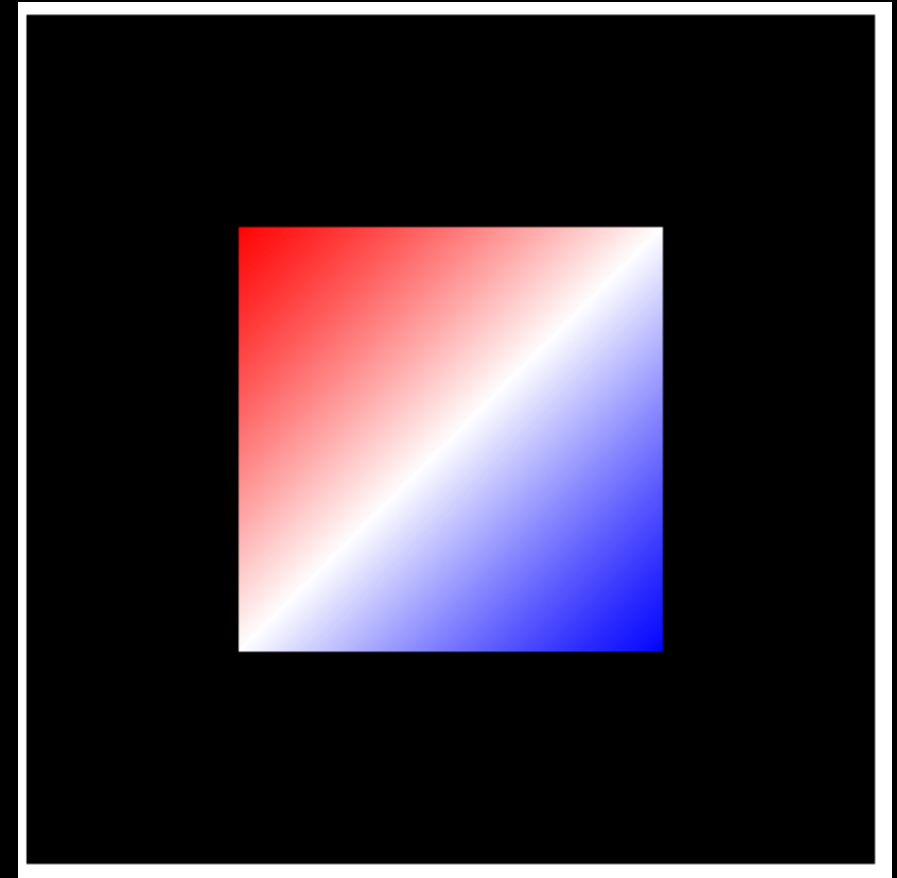
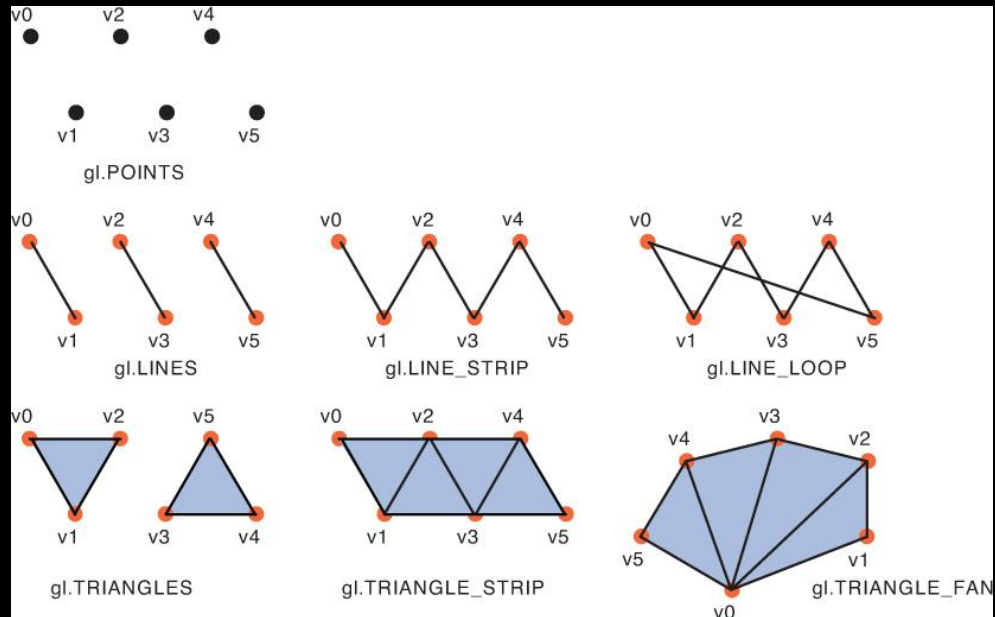


Lab 2

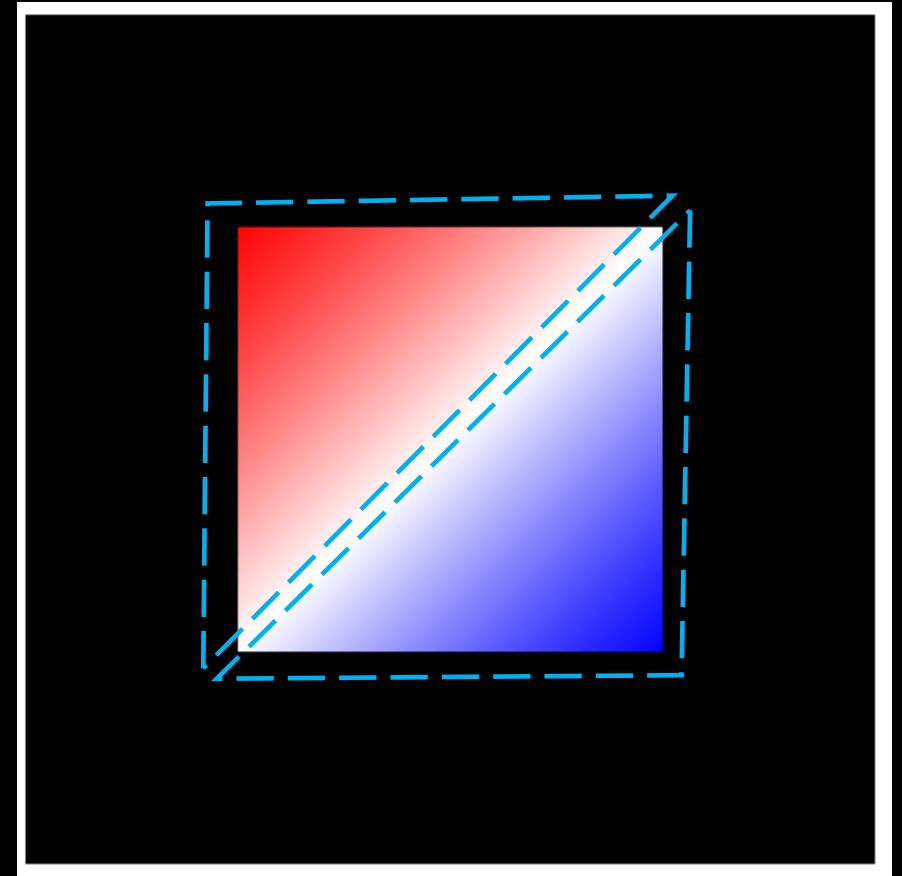
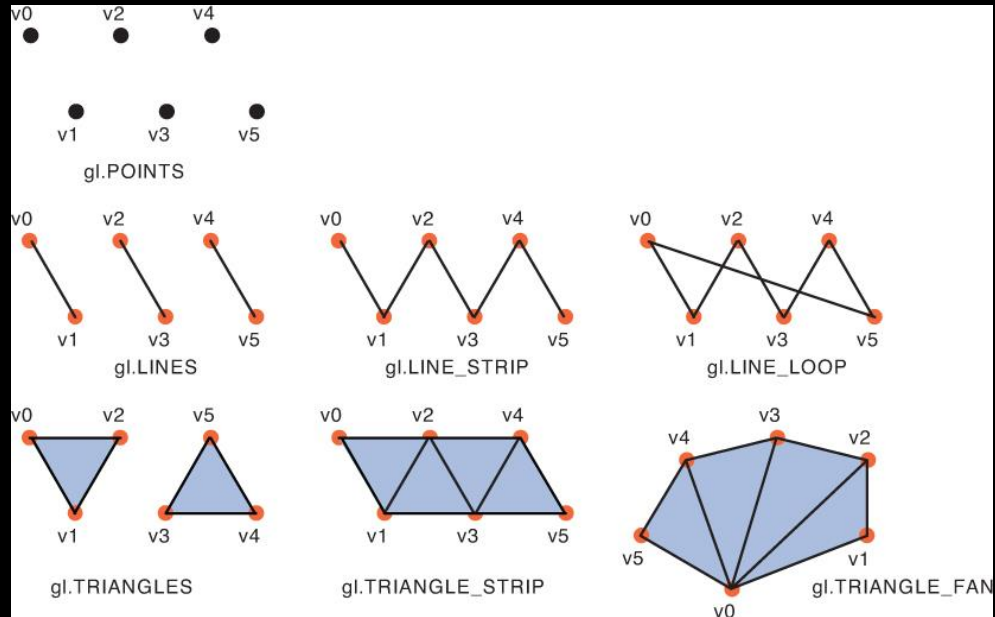
What We Want to Do



- Draw a rectangle
- Why is this hard? Any difference to draw a triangle or line?
 - Review `gl.drawArrays()`
 - There is no “`gl.Quad`” or “`gl.rectangle`”



- Draw a rectangle
- Why is this hard? Any difference to draw a triangle or line?
 - Review `gl.drawArrays()`
 - There is no “`gl.Quad`” or “`gl.rectangle`”
- We have to use multiple triangles to draw a rectangle



What You Should Do Step by Step

Check "TODOs"

- Check Line68 first
 - I use "**gl.TRIANGLE_STRIP**" in `gl.drawArray()`
- Check TODO comments
 - They are all in `initVertexBuffers()`

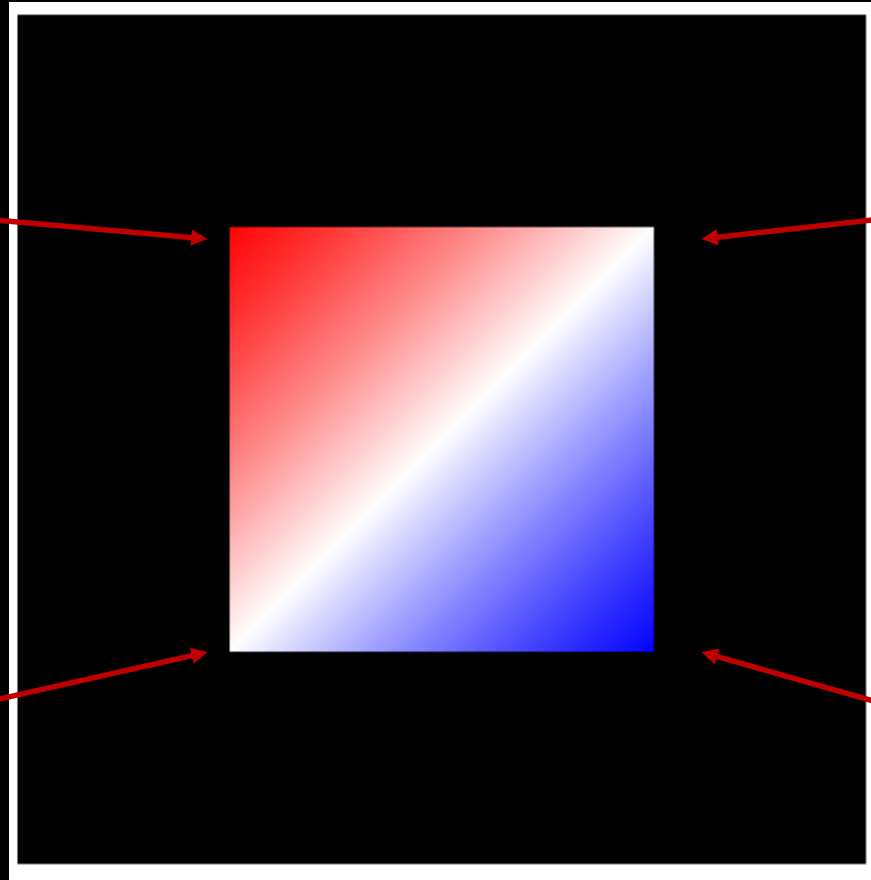
```
function initVertexBuffers(gl, program) {  
    var vertices = new Float32Array(  
        [ ]  
        //TODO-1: vertex and color array  
    );  
  
    //TODO-2: how many vertices to draw?  
    //var n = ???;  
  
    //TODO-3: create a vertex buffer  
    //TODO-4: bind buffer (gl.bindBuffer)  
    //TODO-5: bind buffer data (gl.bufferData)  
  
    //TODO-6: get reference of the attribute variable for vertex position  
    //TODO-7: layout of current vertex buffer object (gl.vertexAttribPointer)  
    //TODO-8: enable the attribute array  
  
    //TODO-9 repeat TODO-6~8 for the attribute variable to store vertex color information  
  
    return n;  
}
```

Position: $(-0.5, 0.5)$
Color: $(1.0, 0.0, 0.0)$

Position: $(0.5, 0.5)$
Color: $(1.0, 1.0, 1.0)$

Position: $(-0.5, -0.5)$
Color: $(1.0, 1.0, 1.0)$

Position: $(0.5, -0.5)$
Color: $(0.0, 0.0, 1.0)$



What You Should Do for “Submission”



Submission Instruction

- Create a folder
 - Put the html and js files in the folder
 - Zip the folder
 - Rename the zip file to your student ID
 - For example, if your student ID is “40312345s”, rename the zip file to “40312345s.zip”
 - Submit the renamed zip file to Moodle
- Make sure
 - you put all files in the folder to zip
 - You submit the zip file with correct name
- You won't get any point if
 - the submitted file does not follow the naming rule,
 - TA cannot run your code,
 - or cannot unzip your zip file.