

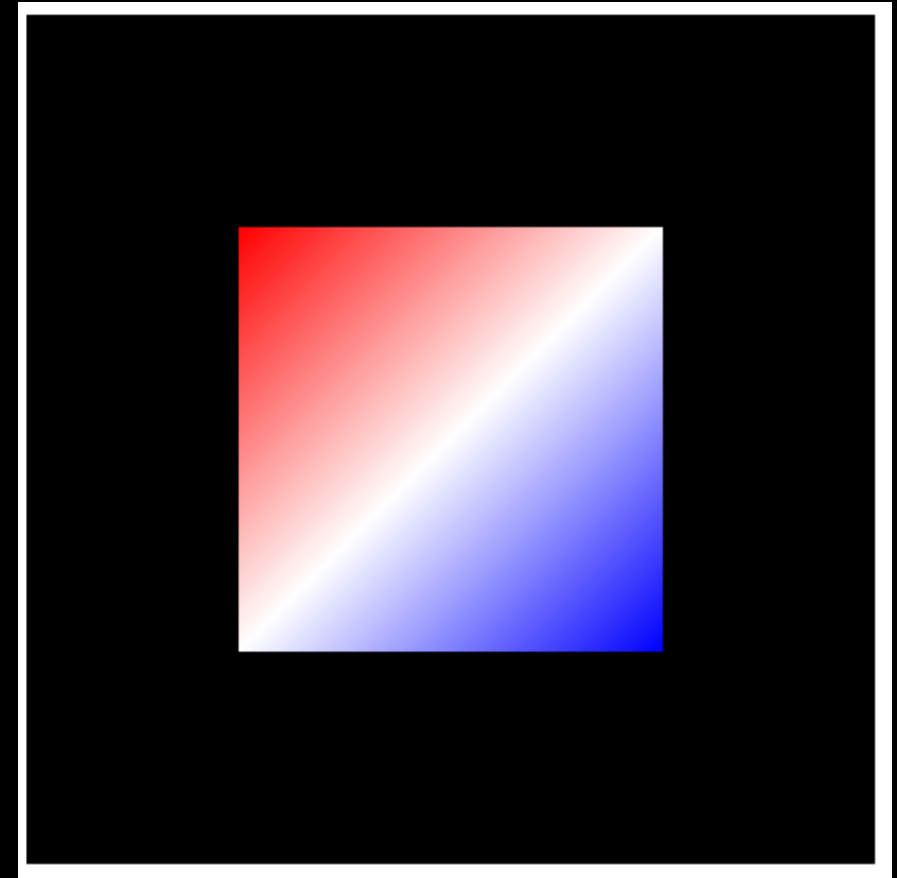
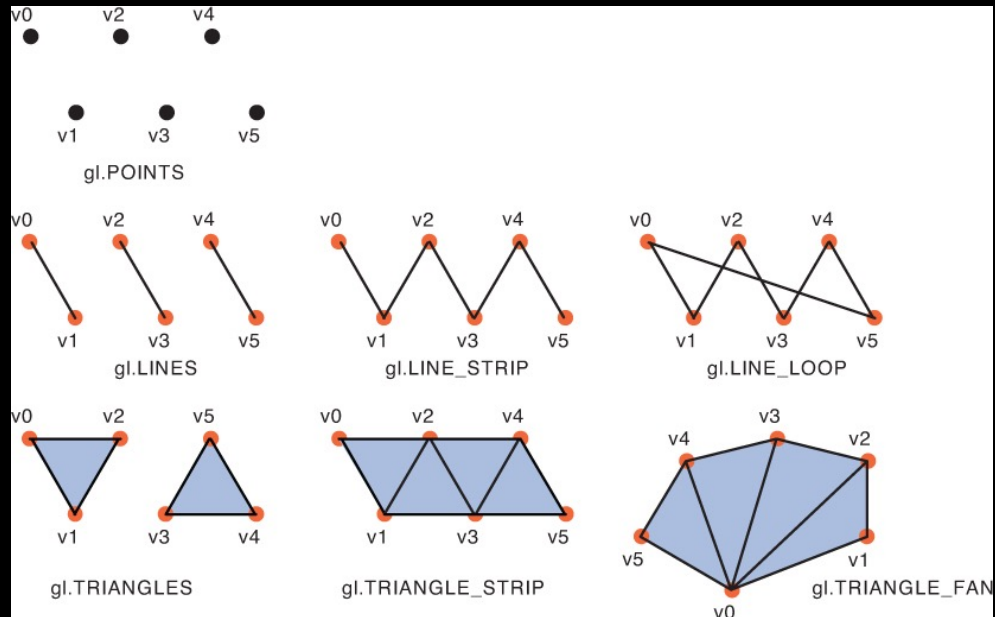


# Lab 2

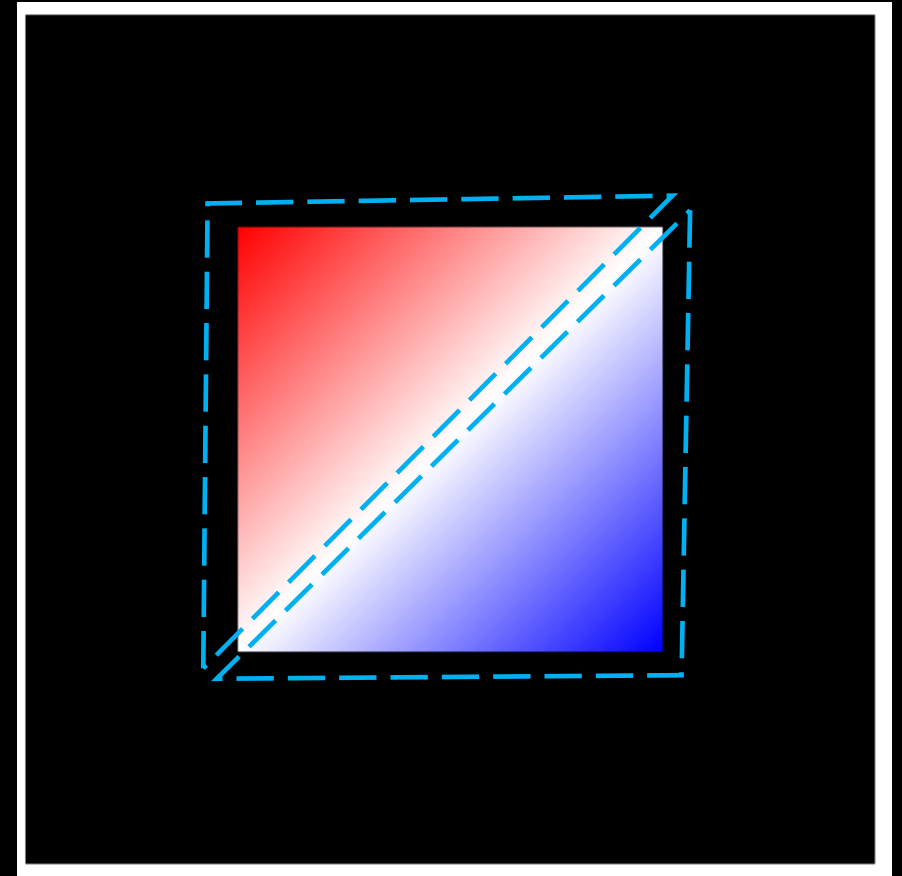
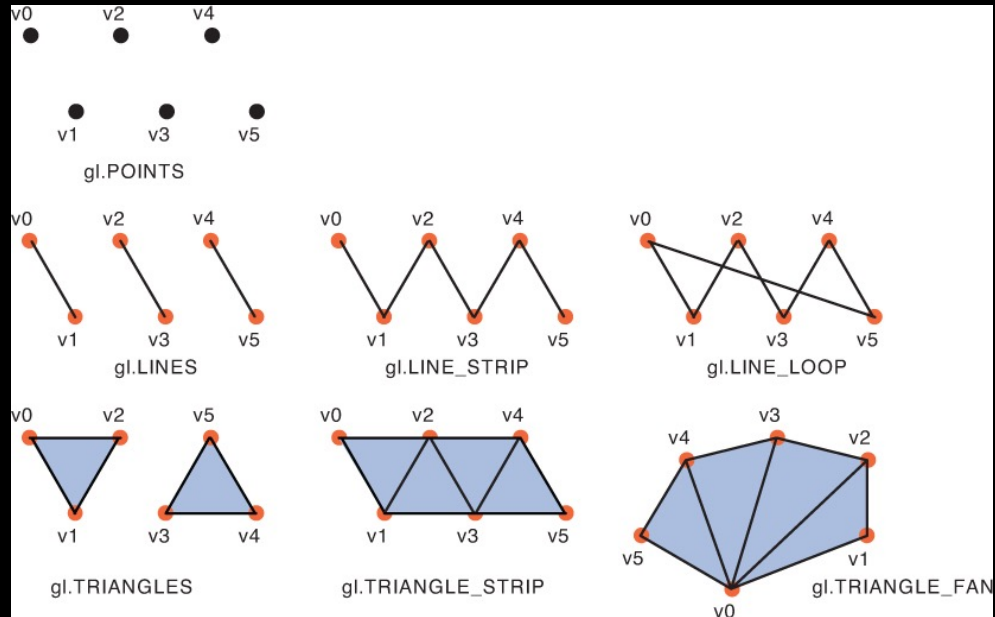
# What We Want to Do



- 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

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# 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(
    [ ]
    //TODO0-1: vertex and color array
  );

  //TODO0-2: how many vertices to draw?
  //var n = ???;

  //TODO0-3: create a vertex buffer
  //TODO0-4: bind buffer (gl.bindBuffer)
  //TODO0-5: bind buffer data (gl.bufferData)

  //TODO0-6: get reference of the attribute variable for vertex position
  //TODO0-7: layout of current vertex buffer object (gl.vertexAttribPointer)
  //TODO0-8: enable the attribute array

  //TODO0-9 repeat TODO0-6~8 for the attribute variable to store vertex color information

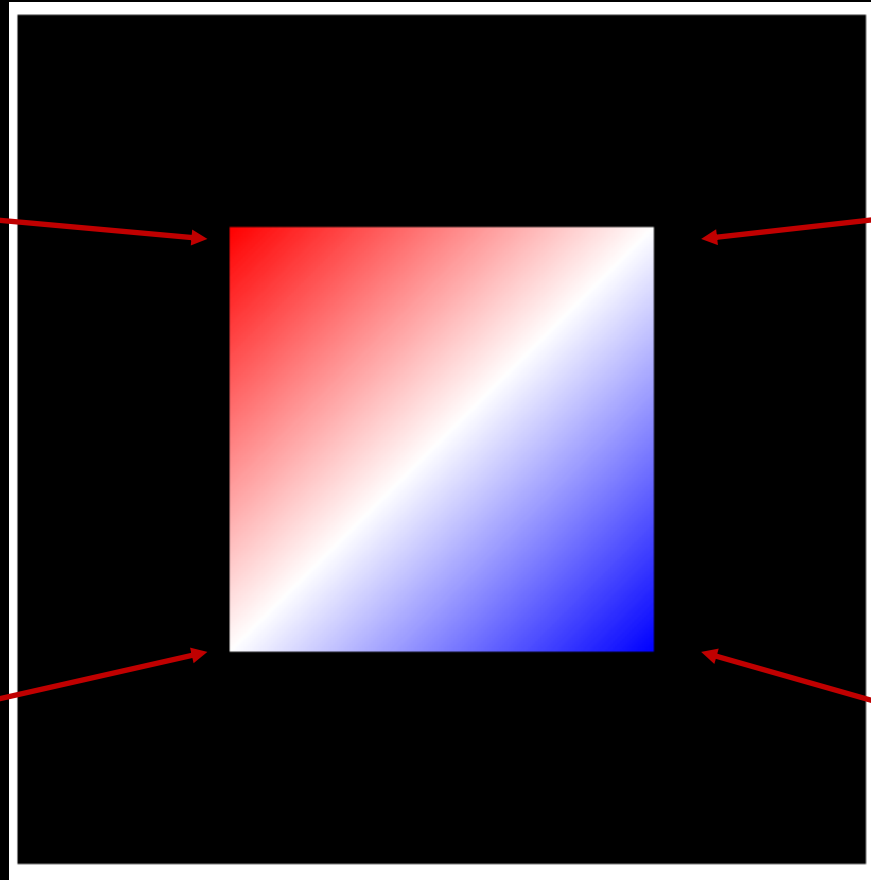
  return n;
}
```

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.