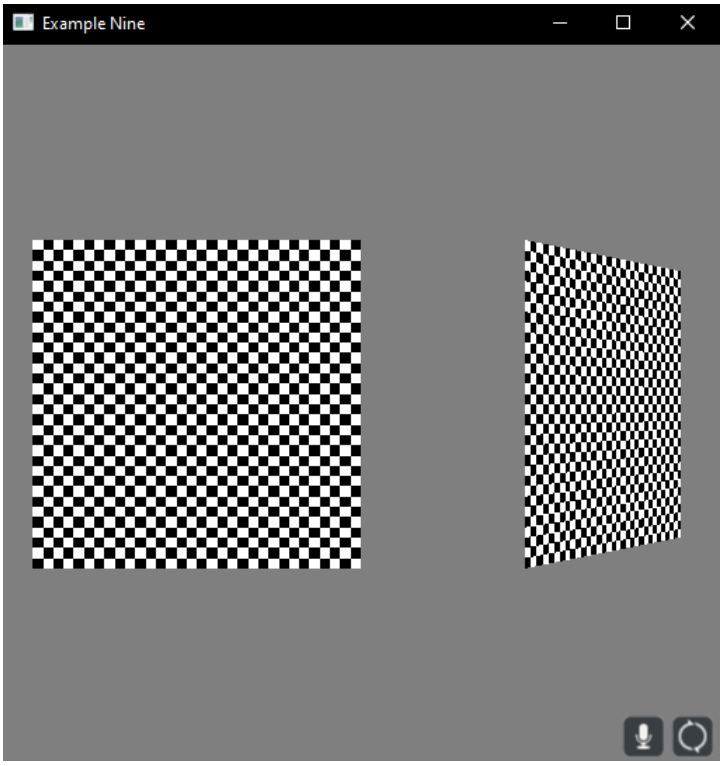
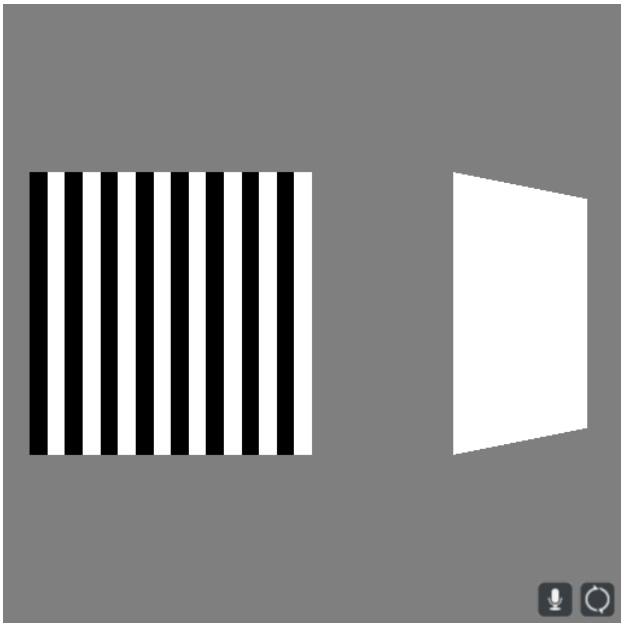


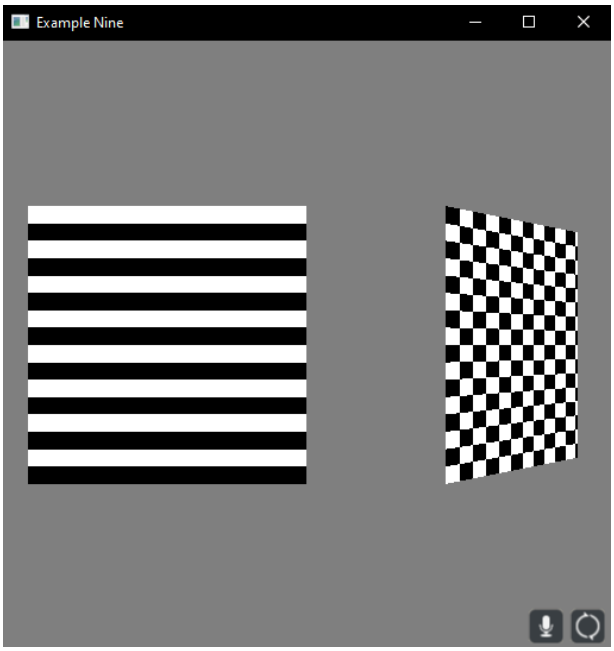
texCoord = vTexture*4

This shows us that it is duplicating the texture 4 times in both directions

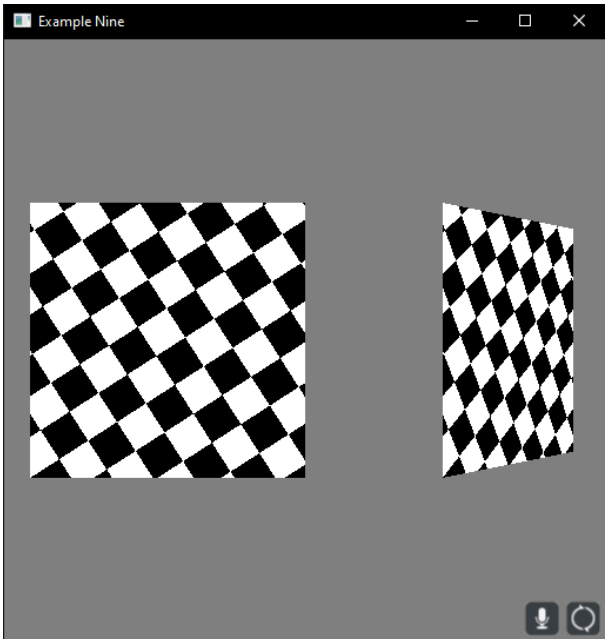
Swizzlinfg Example:



texCoord = vPosition.xz



texCoord = vPosition.yz



texCoord = vTexture*rotationMatrix

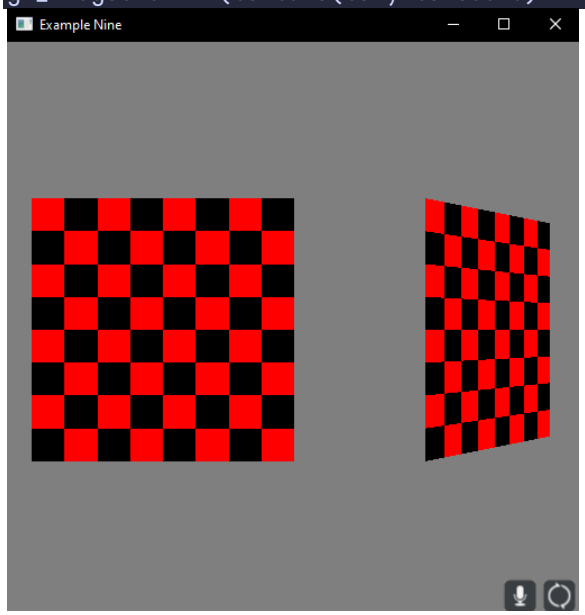
texture.vs main function for rotation question

```
void main(void) {
    float angle = 1.0;
    mat2 rotationMatrix;
    rotationMatrix[0][0] = cos(angle);
    rotationMatrix[0][1] = -sin(angle);
    rotationMatrix[1][0] = sin(angle);
    rotationMatrix[1][1] = cos(angle);

    gl_Position = modelView * vPosition;
    texCoord = vTexture*rotationMatrix;
}
```

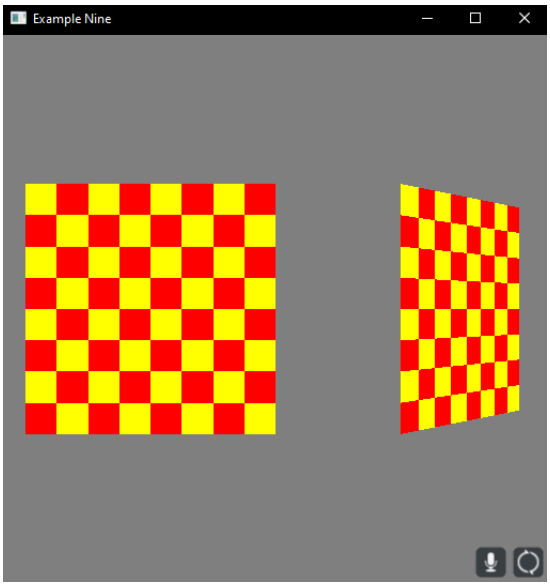
Changing the color for the checkerboard:

```
gl_FragColor = (texture(tex, texCoord) * vec4(1.0, 0.0, 0.0, 1.0));
```



Changing both squares

```
gl_FragColor = (texture(tex, texCoord) + vec4(1.0, 0.0, 0.0, 1.0)) * vec4(1.0, 1.0, 0.0, 1.0);
```



Final fragment shader

```
#version 330 core

in vec2 texCoord;
uniform sampler2D tex;

void main(void) {

    gl_FragColor = (texture(tex, texCoord) + vec4(1.0, 0.0, 0.0, 1.0)) * vec4(1.0, 1.0, 0.0, 1.0);

}
```