Exam #2 - Review Sheet - Ramsey SP09
CSI 494 SpTp: Computer Graphics

Topics

1. geometric transformations (translate, scale, rotate)
2. transformations in OpenGL (dependent operations)
3. normal vectors (revisit), flat vs smooth shading
4. depth test, depth buffer (recall z-buffer algorithm), color buffer
5. wireframe vs solid
6. lighting, specular, diffuse, ambient
7. lighting calculations -all pieces of the equations, diffuse, ambient, specular
8. lighting in OpenGL
9. fog, equations, fog in OpenGL, how is it used
10. time steps
11. collision detection (sphere/sphere, axis aligned boxes,axis-aligned box/sphere, general box/sphere)
12. shadow maps, render the scene as a "map" from light, lookup depth and compare to the map
13. selection in OpenGL

Questions to think about:

1. Given the following snippet OpenGL code, what is produced? (this could include some geometric transformations, lighting, etc).
2. Explain the algorithm for ...
3. Explain the equation for ...
4. Explain why .... is useful
5. What is another way to do ...
6. What is ....
7. How is .... used
8. How does OpenGL achieve ...
9. How do you achieve ... in OpenGL?