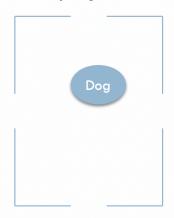CIS 441/541: Project #3D

Goal:
Extend your 2B code to make mirrors.

Steps:

1. Modify your GL code and shaders to pass along a model matrix that does not use translation.
   a. This will involve you having to calculating a second set of matrices alongside the first.
   b. You will also need to pass the second matrix to your shader programs (as a uniform) and have your vertex shader use it to transform the normal for Phong shading.
2. Add a room around your dog. The room should have a floor and 4 walls. In the middle of each wall should be a mirror. Each mirror will be a gap in the geometry. This notional image has the room a little taller than it is wide, and the dog not quite in the center. You have flexibility to make your room however you please.

3. Implement reflection matrices for the four walls. This will need to include translation for at least two walls – see class lecture. If your walls are not on the planes, then it will get tougher and you will need rotation.
4. Render your scenes multiple times. Once without reflection and then once with each of the 4 reflection matrices. (5 renders total.)