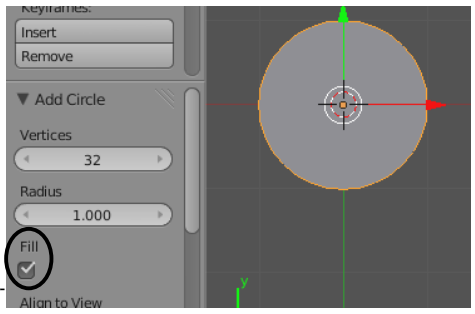
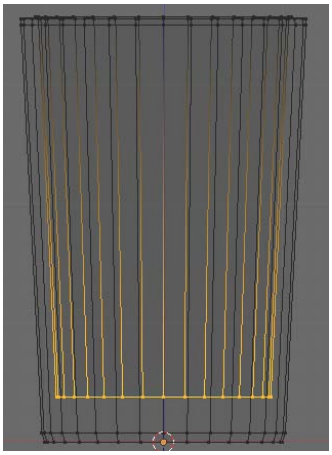
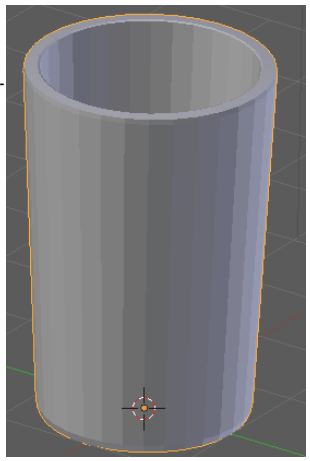
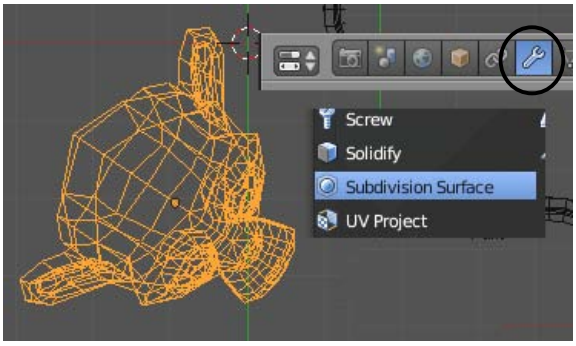
Since we don't have many objects that would work well with mirror/transparency in our lighthouse scene (except the water, which would create a slow rendering), we will create a new scene for our ray-tracing exercise. Since we have experience using the *Extrude* command from our lighthouse modeling, lets use it to make a drinking glass. Start a new scene and erase the *Cube*. Next, add a *Circle* mesh in the *Top* view and check the "*Fill*" option in the *Tool Shelf*.





Now switch to a *Front* view, switch to *Edit* mode and *Wireframe* shading. Begin *Extruding* ("E" key) to shape a simple drinking glass. As you extrude upward, scale the top out a bit to show taper. When you reach the top, extrude back down inside the glass to show wall thickness. When you finish, go back to *Object* mode, *Solid* shading, and hit "*Smooth*" in the *Tool Shelf*.





It's now time to add a Plane for the glass to rest on. For fun, let's also add a monkey head to the scene. Set the monkey head *Smooth* from the *Tool Shelf*, then go to the *Modifiers* panel and add a *Subdivision Surface* modifier to shape up the monkey. Sub-Surf adds imaginary rows of verticies to an object in order to improve image quality. Adjust your lights and camera angle to get a scene something like the one shown below:

Now that we have our basic scene, it's time to add materials and texture to our objects. Add an appropriate texture to the floor of your choice and give it a small amount of Ray Mirror as discussed on the previous pages. Also, add a material to the monkey head and take Ray Mirror up to simulate chrome.