**CS 559: Computer Graphics**

**Homework 8 - Ungraded**

*This homework will not be graded (obviously). It is intended to help you prepare for the final. We strongly recommend that you try to do all the questions before looking at the solutions. In other words, treat it like a homework but grade yourself.*

## Question 1:

For each of the following situations, suggest which animation method you would use.

    a. The clothing of a human-like character in a feature film.

    b. A waterfall in a computer game.

    c. An alien monster in a cartoon-style feature film.

    d. A football player in a computer game.

## Question 2:

Recall the notation used in class for light paths. For example, the OpenGL shading model captures $LDE$ paths, or $L(S|D)E$ if the $S$ is rough specular (ignoring shadows).

    a. What class of paths is captured by basic ray-tracing?

    b. What class of paths is captured by a light caching algorithm?

    c. What class of paths is captured by a radiosity algorithm?

    d. Sketch a situation in which the three algorithms will give significantly different answers. Your diagram must include three light paths: one for each algorithm that is not captured by either of the other algorithms. Also indicate:

        • the location of the light source

        • the location of the viewer

        • whether or not each surface is diffuse or specular (mirror-like)