Homework 5

- 1. At one stage in the graphics pipeline, an object must be shaded, that is, color must be computed for each vertex. At another stage the object must be clipped to the view frustum. Identify at least one advantage, in terms of efficiency, of clipping before shading.
- 2. The graphics pipeline, in fact, shades before it clips. Can you think of a good reason for that?
- 3. At one stage of the pipeline, the object must be rasterized. Identify at least one advantage of clipping before rasterizing.
- 4. The graphics pipeline, in fact, clips before rasterizing. Can you think of at least one advantage of rasterizing before clipping.
- 5. Which should be done first, rasterizing a polygon or computing the color for the interior?
- 6. At one stage of the graphics pipeline, it removes hidden surfaces (surfaces that are obscured by other surfaces). At what stage in the pipeline do you think it would be best to remove hidden surfaces? Why?
- 7. At one stage of the graphics pipeline, surfaces are culled. That is, away-facing surfaces of closed solids are removed. At what stage in the pipeline do you think it would be best to cull away-facing surfaces? Why?