**Final Review**

**CISC 3620**

1. Midpoint algorithm
2. Barycentric coordinates
3. Polygon filling
4. Hidden surface removal
   (a) z-buffer algorithm
   (b) painter’s algorithm
5. Anti-aliasing
6. Pipeline
   (a) Where in the pipeline does this happen
   (b) Fill in missing stage of the pipeline
   (c) What is being processed at each stage of the pipeline
7. Texture mapping
8. Data structures for graphics
   (a) Draw a bicycle as a scene graph
   (b) What does the matrix stack look like when x is drawn
9. Ray tracing
   (a) Pseudocode for a basic ray tracer
   (b) Where does this ray intersect with this triangle?
      i. Get a point on the triangle
10. Constructive solid geometry
    (a) Given these primitives, draw a CSG tree for this object
    (b) What are the intervals where the ray intersects with each node of the tree