

CS 230, Quiz 5

Solutions

You will have 5 minutes to complete this quiz. No books, notes, or other aids are permitted.

Problem 1 (2 points)

Why must we perform perspective correct interpolation? (Vague answers - “to get the right answer” do not count.)

Perspective transforms do not preserve barycentric coordinates. When rasterizing, we compute the image-space barycentric coordinates, but for interpolating colors (or texture coordinates), we need world-space barycentric coordinates. Perspective correct interpolation converts one to the other.

Problem 2 (2 points)

Does z -buffering occur before or after clipping **and why**?

Clipping is done on triangles to prune them out before rasterization. z -buffering is done per-pixel after rasterization. z -buffering is after clipping.