

CS130 Winter 2013 Homework 7

February 22, 2013

Name:

Student ID:

1. Multiple Choice

- (a) Mipmapping uses a series of decreasing resolution textures to reduce artifacts from A) minification B) magnification C) perspective distortion D) all of the above
- (b) Blinn-Phong reflection model is faster than the Phong reflection model because A) It uses a half-vector that only needs to be computed once B) It does not model specular reflection C) It uses only integer arithmetic D) N/A the Blinn-Phong reflection model is not faster than the Phong reflection model because the halfway vector takes longer to compute E) None of the above

2. True/False

- (a) T/F The Phong reflectance model requires more computations than the Lambertian reflectance model.
- (b) T/F Gouraud shading requires more computations than Phong shading.
- (c) T/F Phong shading can be implemented in a Vertex shader.
- (d) T/F Mipmapping with n levels requires n times the amount of memory.

3. Written Response

- (a) Recall the equation for Phong reflection. Given R , the reflection of L , by a material with surface normal N , find L , the light vector.