

Name:

Student ID:

Homework 7

1 Multiple Choice

- _____ 1. Mipmapping uses a series of decreasing resolution textures to reduce artifacts from A) minification B) magnification C) perspective distortion D) all of the above
- _____ 2. 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.

2 True/False

- _____ 1. (T/F) The Phong reflectance model requires more computations than the Lambertian reflectance model.
- _____ 2. (T/F) Gouraud shading requires more computations than Phong shading.
- _____ 3. (T/F) Phong shading can be implemented in a vertex shader.
- _____ 4. (T/F) Mipmapping with n levels requires n times the amount of memory.

3 Written Response

1. Recall the equation for Phong reflection. Given \mathbf{R} , the reflection of \mathbf{L} , by a material with surface normal \mathbf{N} . Find \mathbf{L} , the light vector.