HW #7 Questions

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1. Magnification happens when a small portion of a texture is mapped to a large part of a screen. Texels are larger than screen pixels and must be scaled up. Minification happens when a large portion of the texture is mapped to a small part of the screen. Texels are smaller than screen pixels and one pixel covers many texels. A color needs to be picked based on the covered texels.

2. Mip mapping is way to pre-calculate the size of an image depending on its level of depth. The images are cut into smaller images that are a power of 2 less than the one before. Mip mapping is normally used to increase rendering speed and reduce aliasing.

3. An environment map is an image of the surrounding environment that is reflected in an object. These reflections make the object look shiny. Environment mapping is typically used to mimic the reflection properties of highly specular surfaces.