1. Describe the followings:
   a. Reflection of ambient light
   b. Diffuse reflection
   c. Specular reflection

2. What are the differences between constant intensity shading, Gouraud shading, and Phong shading?

3. What is Mach bands effect? Illustrate how they are created.

4. Describe how ray tracing simulates the case when a shiny surface reflects a light source. Illustrate how the light spot on the surface moves when the viewing position is changed from A to B. (Assume that every position of the surface reflects light with higher intensity at the angle of reflection, and that the angle of incident is equal to the angle of reflection.)

   ![Diagram](Shiny metal surface and mirror)

5. Describe how radiosity simulates the case when a matt surface reflects a light source. Illustrate how different intensities are shown at positions A and B, in the following diagram.

   ![Diagram](Diffuse reflection diagram)

6. In the following diagram, the light source will cause a light spot appearing on the metal surface. The mirror will reflect this light spot. Which one of the positions (A or B) reflects this light spot? For your answer of the previous question (A or B), sketch the path of the eye ray.

   ![Diagram](Mirror reflecting light spot and eye ray path)