Physics Worksheet – Unit 13-2

1. Which of the following are examples of specular reflection, and which are examples of diffuse reflection?
    a. reflection of light from the surface of a lake on a calm day

    b. reflection of light from a plastic trash bag that has been wrinkled

    c. reflection of light from the lens of eyeglasses

    d. reflection of light from a bumpy, tile floor

2. Suppose you are holding a flat mirror and standing at the center of a giant clock face built into the floor. Someone standing at 12 o'clock shines a beam of light toward you, and you want to use the mirror to reflect the beam toward an observer at 5 o'clock. What should the angle of incidence be to achieve this? What should the angle of reflection be? Draw a sketch to prove your answer.

3. Some department store windows are slanted inward at the bottom. This is to decrease the glare from brightly illuminated buildings across the street, which would make it difficult for shoppers to see the display inside. Sketch a light ray reflecting from such a window to show how this technique works.

4. If one wall of a room consists of a large flat mirror, how much larger will the room appear to be? Explain your answer and give an example of who would use this?