Grade 10 Refraction of Light WS 31/8/2010

1. Sketch the path of each light ray as it passes from air to water. Draw the eye of the observer in the water that could see each ray.



1. The light source is now under water. Sketch the path of the rays as they pass from the water into the air. Draw the observer’s eye in the air that could see each ray.



1. Qualitatively sketch the path of the light rays as they enter and exit the glass blocks. Show the direction of normal at the enter and exit point.



1. Quantitatively determine the direction of the refracted ray.



1. Find and draw the angle at which light will leave the 45-45-90 triangular glass block in water.



1. Quantitatively determine the direction of the refracted ray.



1. In a lab experiment where light passes from air into a plastic block, the incident angle is measured to be 25° and the refracted angle is 21°. Find the refractive index of the block.