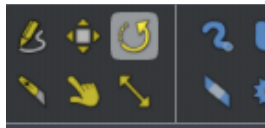
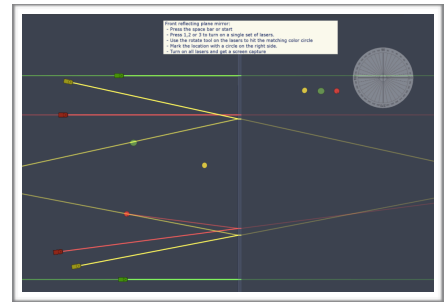


Part 1: Plane Mirrors

- Press the space bar or start button
- Press 1,2 or 3 to turn on a single set of lasers.



-Use the rotate tool to turn the lasers and hit the matching color circle with a reflection from the mirror.



- Mark the location with a circle on the right side. Drag the dot to where the transmitted lasers meet.

Turn on all lasers and **get a screen capture**. Submit your picture, along with answers to:

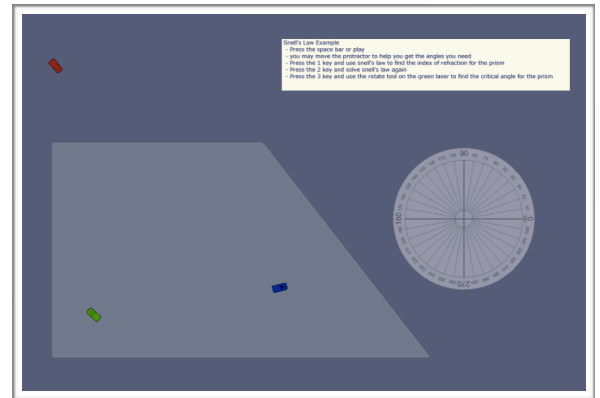
Question 1: Compare the distances of the target dots to the mirror with the distance from the mirror to the image dots.

Question 2: Compare the triangle of the objects (the target dots) with your image (the placed dots).

Part 2: Refraction

$$n_r \sin \theta_r = n_i \sin \theta_i$$

- Press the space bar or start button.
- Press 1,2 or 3 to turn on a single laser.



- Using the RED laser first, simply measure the angles in the air and in the glass.

Question 3: What is the angle of incidence, the angle of refraction, and the index of refraction for the glass?

- Using the BLUE laser, simply measure the angles in the air and in the glass.

Question 4: What is the angle of incidence, the angle of refraction, and the index of refraction for the glass?

- Using the GREEN laser, rotate the laser (clockwise) until the laser is able to get out to the air and **get a screen capture**.

Question 5: What is the critical angle and the index of refraction for the glass?