

Name \_\_\_\_\_ # \_\_\_\_\_

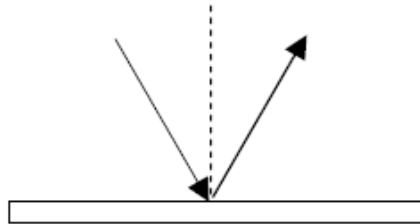
St. Mary's H.S. Physics

Reflection and Refraction Review HW Reflection

Law of Reflection – Angle of incidence = Angle of Reflection

A) all angles are measured with respect to the normal

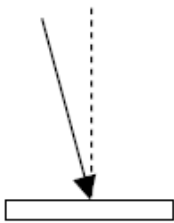
B) Normal – dotted line drawn perpendicular to the surface where the light ray hits the reflecting surface



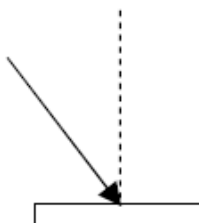
Measuring Angles – a) Place protractors horizontal guide on the normal

b) measure the acute angle between the normal and ray

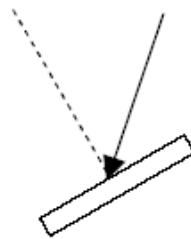
I. Reflection Exercises - For each drawing below: a) Draw the reflected ray b) measure and record the **angle of incidence** c) and the **angle of reflection**



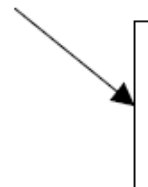
b) \_\_\_\_\_ c) \_\_\_\_\_



b) \_\_\_\_\_ c) \_\_\_\_\_



b) \_\_\_\_\_ c) \_\_\_\_\_

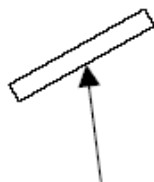


b) \_\_\_\_\_ c) \_\_\_\_\_

(hint: draw the normal first)



b) \_\_\_\_\_ c) \_\_\_\_\_



b) \_\_\_\_\_ c) \_\_\_\_\_

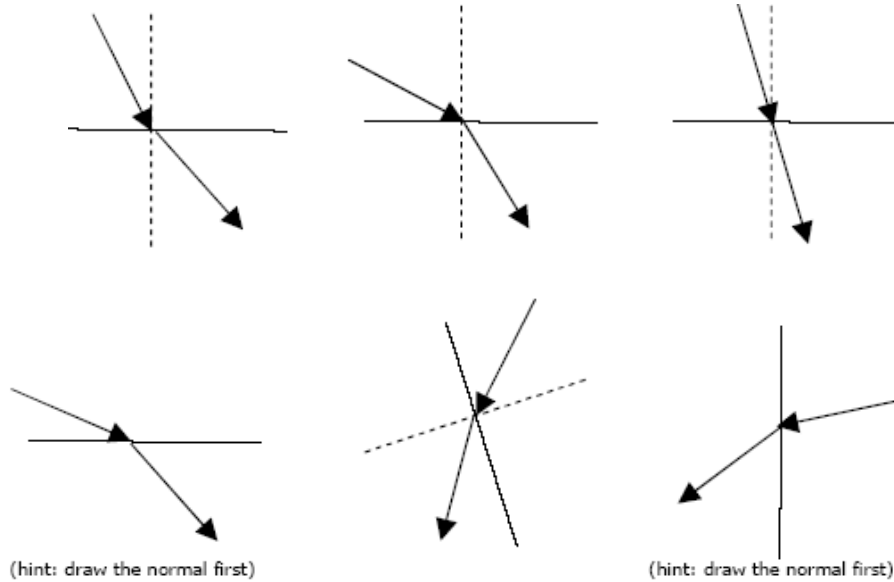
II. Refraction Exercises – Measuring the Angle of Incidence and Refraction

Instructions:

- 1) Measure and Record the Angle of incidence and the Angle of Refraction
- 2) If one medium is faster than the other, label the medium with the letter F

How to measure refraction angles

- a) Place the 0 degree horizontal guideline of your protractor on the normal
- b) Line up the middle of the protractor with the tip of the arrow on the first ray



III. Drawing Refraction Ray Diagrams

Instructions: Use the angles given to draw the following refraction diagrams

a) $\theta_1 = 30$ degrees $\theta_2 = 40$ degrees	b) $\theta_1 = 15$ degrees $\theta_2 = 25$ degrees
	<p>(hint: draw the normal first)</p>