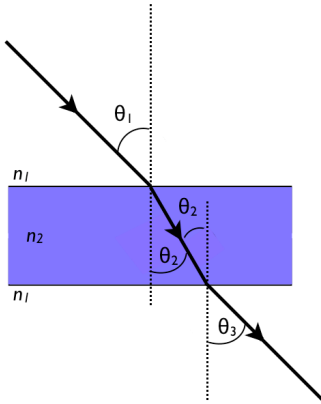


Name _____

Quiz 6: Refraction

$$n_1 \sin \theta_1 = n_2 \sin \theta_2$$

1. A light beam traveling through a transparent medium of index of refraction n_1 passes through a thick transparent slab with parallel faces and an index of refraction n_2 . What is the angle θ_3 ?



2. If $n_1 = 1.0$ and $n_2 = 1.923$ in the figure above, what is θ_2 if $\theta_1 = 28^\circ$? Note that the figure is not to scale.
3. The way the figure is drawn, which material has the lower effective speed of light? *Briefly*, why? The numbers from the previous question do not necessarily imply anything about this question.