

43. The law of refraction states

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

We take medium 1 to be the vacuum, with $n_1 = 1$ and $\theta_1 = 32.0^\circ$. Medium 2 is the glass, with $\theta_2 = 21.0^\circ$. We solve for n_2 :

$$n_2 = n_1 \frac{\sin \theta_1}{\sin \theta_2} = (1.00) \left(\frac{\sin 32.0^\circ}{\sin 21.0^\circ} \right) = 1.48 .$$