

# Physics 2

1/16/23

## Quiz 9

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$$n_1 \sin \theta_1 = n_2 \sin \theta_2 \quad n_1 = 1 \quad \theta_1 = 38.5^\circ \quad \theta_2 = 24.4^\circ$$

$$n_2 = \frac{n_1 \sin \theta_1}{\sin \theta_2}$$

$$n_2 = \frac{\sin 38.5^\circ}{\sin 24.4^\circ} = 1.51$$

$$v = \frac{c}{n_2}$$

$$v = \frac{3e8}{1.51} = \underline{199 \cdot 10^6 \text{ m/s}}$$