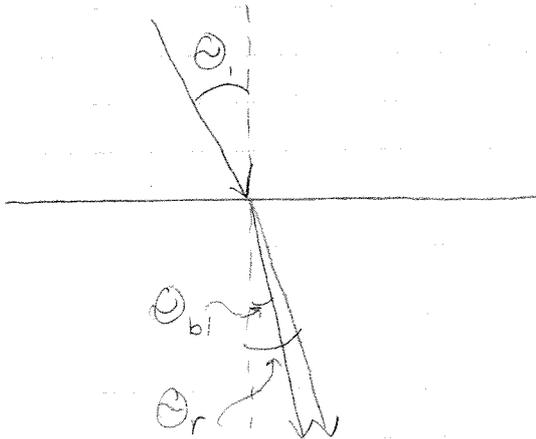


$$n_1 = 1.00 \text{ (air)}$$

$$n_{bl} = 1.650$$

$$n_r = 1.615$$

$$\theta_1 = 30^\circ$$



For Blue:

$$n_1 \sin \theta_1 = n_{bl} \sin \theta_{bl}$$

$$(1.00) \sin 30^\circ = (1.650) \sin \theta_{bl}$$

$$\theta_{bl} = 17.64^\circ$$

For Red:

$$n_1 \sin \theta_1 = n_r \sin \theta_r$$

$$(1.00) \sin 30^\circ = (1.615) \sin \theta_r$$

$$\theta_r = 18.03^\circ$$

$$\Delta \theta = \theta_r - \theta_{bl}$$

$$= (18.03^\circ - 17.64^\circ)$$

$$\Delta \theta = .40^\circ$$