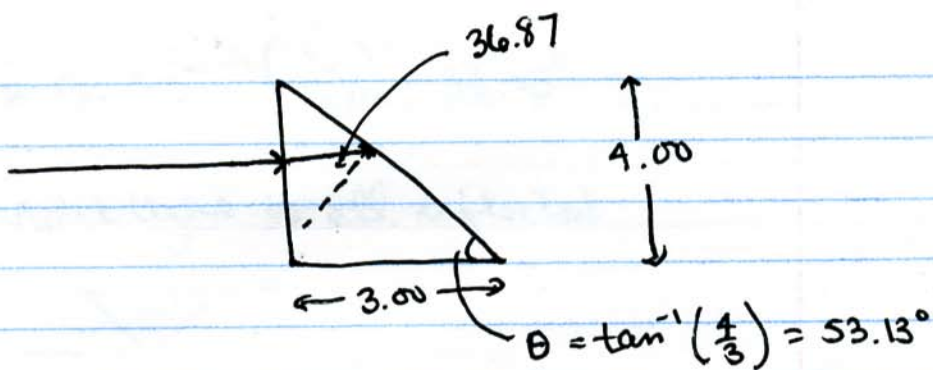


2.



$$a) \lambda_{\text{med}} = \frac{\lambda_{\text{vacuum}}}{n_{\text{red}}} = \frac{700\text{nm}}{1.64} = \underline{\underline{426.8\text{nm}}}$$

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

~~$$1.64 \sin 53.13 = 1 \sin \theta_2 \quad \theta_2 =$$~~

$$1.64 \sin 36.87 = 1 \sin \theta_2 \quad \theta_2 = 79.74^\circ$$

red light some reflected 36.87 degrees from normal
 some transmitted 79.74 degrees from norm

