

Daniel DeWitt

$$\textcircled{2} \tan(\gamma) = \frac{\vec{E}_s}{\vec{E}_p}$$

$$\tan(\gamma) = \frac{2 n_i \cos \theta_i}{(n_i \cos \theta_i + n_t \cos \theta_t)} \cdot \frac{2 n_i \cos \theta_i}{(n_t \cos \theta_i + n_i \cos \theta_t)}$$

$$= \frac{2 \cos(30)}{\cos 30 + 1.51 \cos(19.337)} \cdot \frac{2 \cos(30)}{1.51 \cos(30) + \cos(19.337)}$$

$$= \frac{\left(\frac{1.73205}{2.29084} \right)}{\left(\frac{1.73205}{2.251285678} \right)}$$

$$\tan(\gamma) = \left(\frac{.756076}{.7693603779} \right) \Rightarrow .9827337038$$

$$\frac{1.887174636}{2.251285678}$$

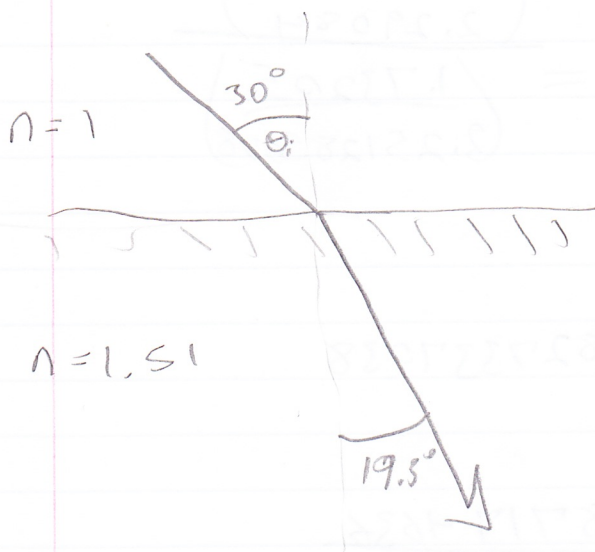
$$\frac{1.887174636}{2.290842254}$$

=

$$\tan(\gamma) = \frac{E_s}{E_p}$$

$$t_s = \frac{2n_i \cos 60}{n_i \cos 60 + n_t \cos(19.3)} = \frac{1}{1.925}$$

$$t_p = \frac{2n_i \cos 60}{\cos(19.3) + 1.51 \cos(60)} = \frac{1}{1.6988}$$



$$t_s =$$