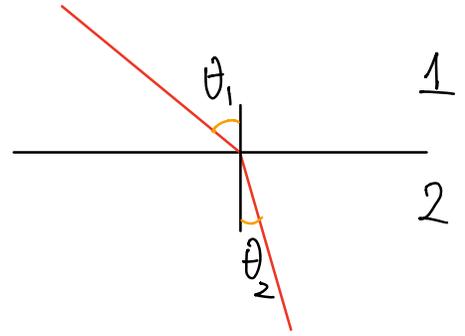
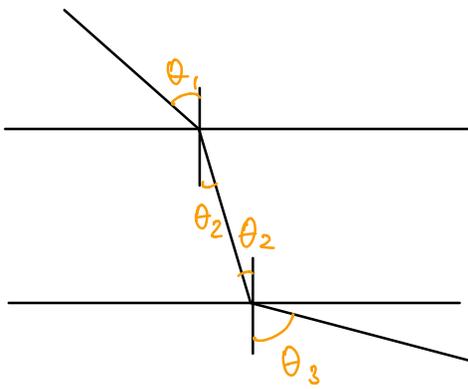


公式：

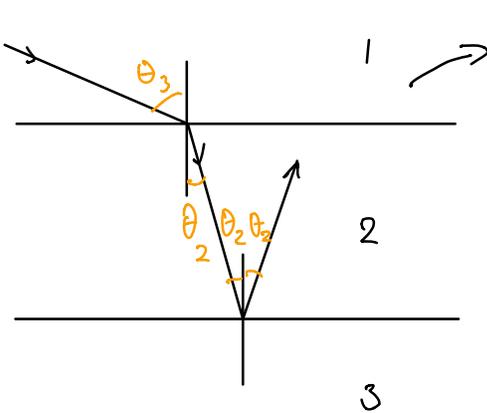
$$\frac{n_1}{n_2} = \frac{v_2}{v_1} = \frac{\sin \theta_2}{\sin \theta_1}$$



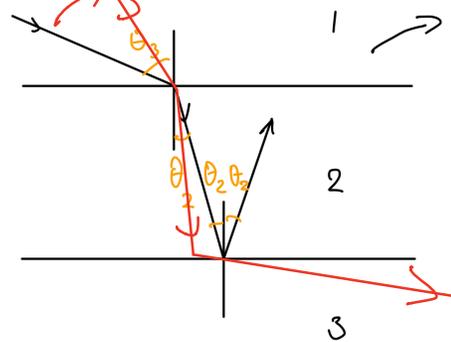
v 同 θ 正相關關係，
 n 同 v/θ 反相關關係。



$$\begin{aligned} \therefore \theta_3 > \theta_1 > \theta_2, \\ v_3 > v_1 > v_2 \\ n_3 < n_1 < n_2 \end{aligned}$$

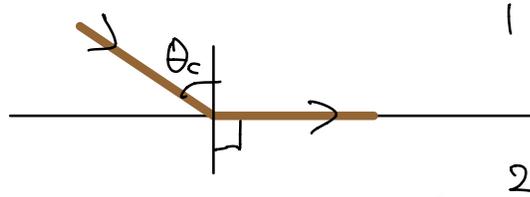


自己較角度：



$$\begin{aligned} \theta_3 > \theta_1 > \theta_2 \\ v_3 > v_1 > v_2 \\ n_3 < n_1 < n_2 \end{aligned}$$

全內反射：



當
 入射角 $> \theta_c$: 全內反射
 $< \theta_c$: 折射

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

$$\sin \theta_2 = \sin 90^\circ = 1$$

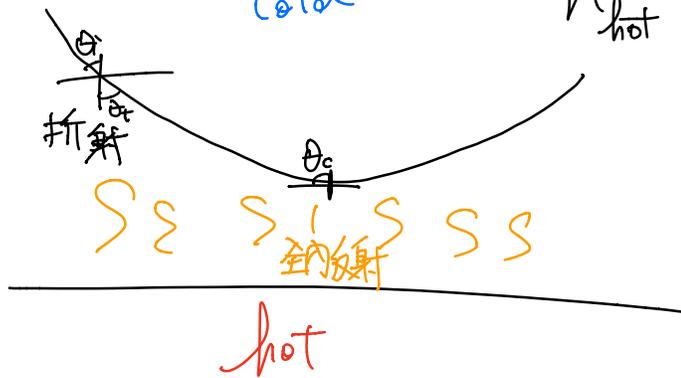
$$\frac{n_2}{n_1} = \sin \theta_c$$

如果 2 是空氣, $n_2 = 1$, $\frac{1}{n_1} = \sin \theta_c$

海市蜃樓：空氣密度：熱 < 冷

Cold

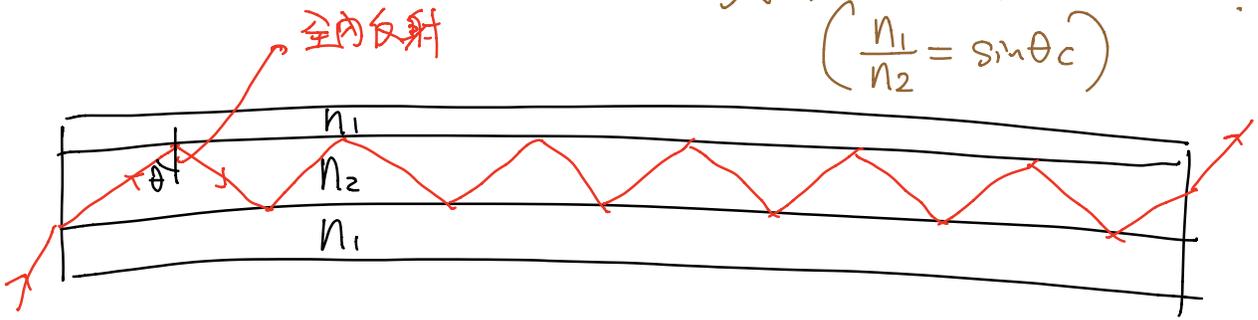
$$n_{hot} < n_{cold}$$



光纖:

要一直全反射, $n_2 > n_1$, 和 $\theta > \theta_c$.

$$\left(\frac{n_1}{n_2} = \sin \theta_c \right)$$



完!