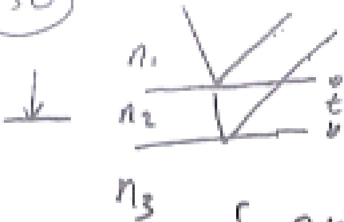
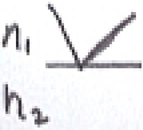
250



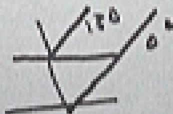
$\delta = 2 n_2 t$



$n_1 > n_2$ 0° shift

$n_2 > n_1$ 180°

$n_1 < n_2$ $n_2 > n_3$

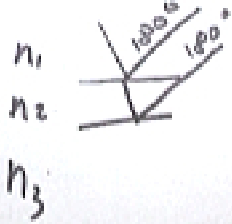


Const: $2 n_2 t = 180^\circ$

$2 n_2 t = (m + \frac{\lambda}{2})$ $m = 0, 1, 2$

dest: $2 n_2 t = m\lambda$

$m = 1, 2, \dots$



$n_1 < n_2$

$n_2 < n_3$

Const: $2n_2 t = m\lambda$

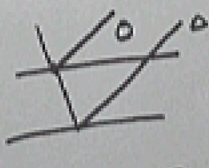
$m = 1, 2, 3 \cdots$

dest: $2n_2 t = (m + \frac{1}{2})\lambda$

$m = 0, 1, 2, \cdots$

$n_1 > n_2$

$n_2 > n_3$

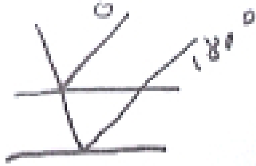


Const: $2n_2 t = m\lambda$

dest: $2n_2 t = (m + \frac{1}{2})\lambda$

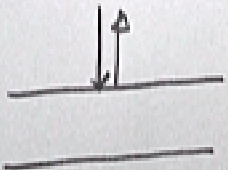
$n_1 > n_2$

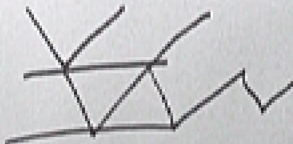
$n_2 < n_3$

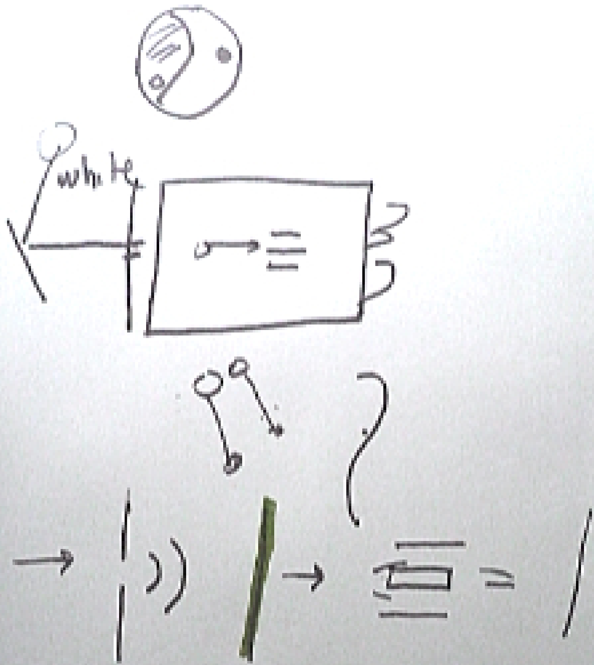


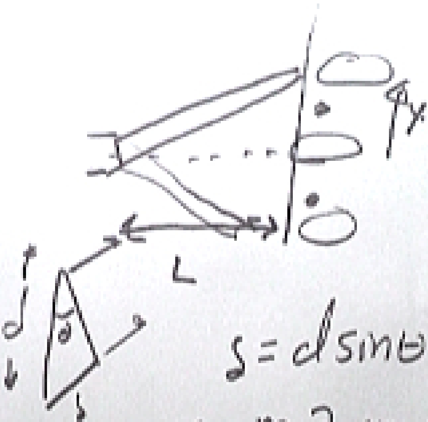
$m=0,1,2..$ Const: $2n_2 t=(m+\frac{1}{2})\lambda$

$m=1,2,..$ dest: $2n_2 t=(m)\lambda$






white

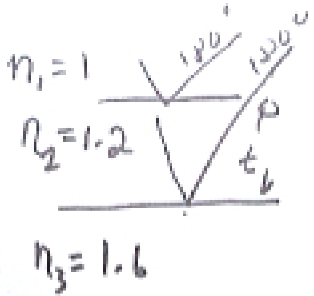


$$\delta = d\sin\theta$$

$$\delta = m\lambda \quad m = 0, \pm 1, \dots$$

$$\frac{I}{I_0} = \cos^2\left(\frac{\pi d y}{\lambda L}\right) = \frac{m\lambda L}{d}$$

$$y = \frac{(m+\frac{1}{2})\lambda L}{d}$$



$\lambda = 470\ nm$

Destruct

$\cancel{2n_2 t = m\lambda}$

$\cancel{m = 1, 2}, \ldots$

t_{min}

$= \dfrac{\lambda}{4n_2}$

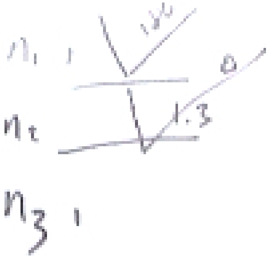
$= \dfrac{470\ nm}{4(1.2)}$

$$2n_2 t = \left(m + \tfrac{1}{2}\right)\lambda$$

$m = 0, 1, 2, \ldots$

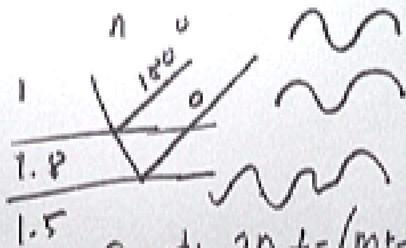
$$t = \frac{(m + 1/2)\lambda}{2n_2}$$

$nm = 10^{-9}\ m$



$$2n_2 t = \left(m+\frac{1}{2}\right)\lambda$$

$m = 0, 1, 2, \ldots$

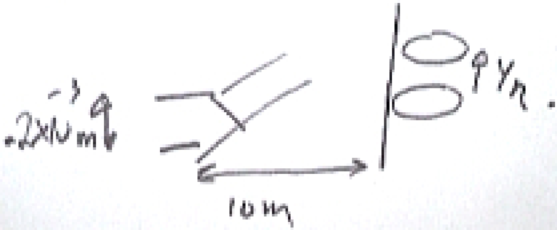


Const: $2n_2 t = \left(m+\frac{1}{2}\right)\lambda$

$m = 0, 1, 2 \ldots$

$$t_{min} = \frac{\lambda}{4n_2} \approx 83 \text{ nm}$$

$\lambda = 600\ nm$



Const: $\delta = m\lambda$,

$m = 0, \pm 1, \cdots$

$$Y_m = \frac{m\lambda L}{d} \qquad Y_{m+1} = \frac{(m+1)\lambda L}{d}$$

$$\Delta Y = \frac{\lambda L}{d} = \frac{600\,nm \times 10}{.2\times10^{-3}} = 3\times10^{-2}\,m$$