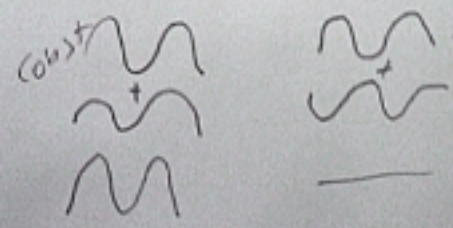
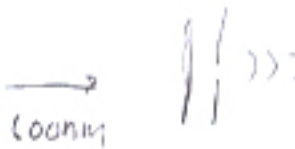
(220)

$\delta = (m+\frac{1}{2})\lambda$

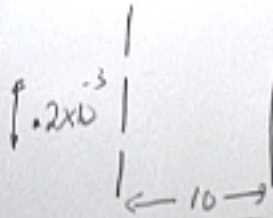
$\delta = d\sin\theta$ $\quad \tan\theta = \frac{Y}{L} \approx \sin\theta$

Const $\quad \delta = d\frac{Y}{L} = m\lambda \quad m = 0, \pm 1, \pm 2 \ldots$





$\lambda = 600\,nm$ $\quad 1nm = 10^{-9}\,m$



$\Delta y S = m\lambda$

$y_m = \frac{m\lambda L}{d}$

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

$\Delta y = \frac{\lambda L}{d} = \frac{600 \times 10^{-9}}{.2 \times 10^{-3}}$

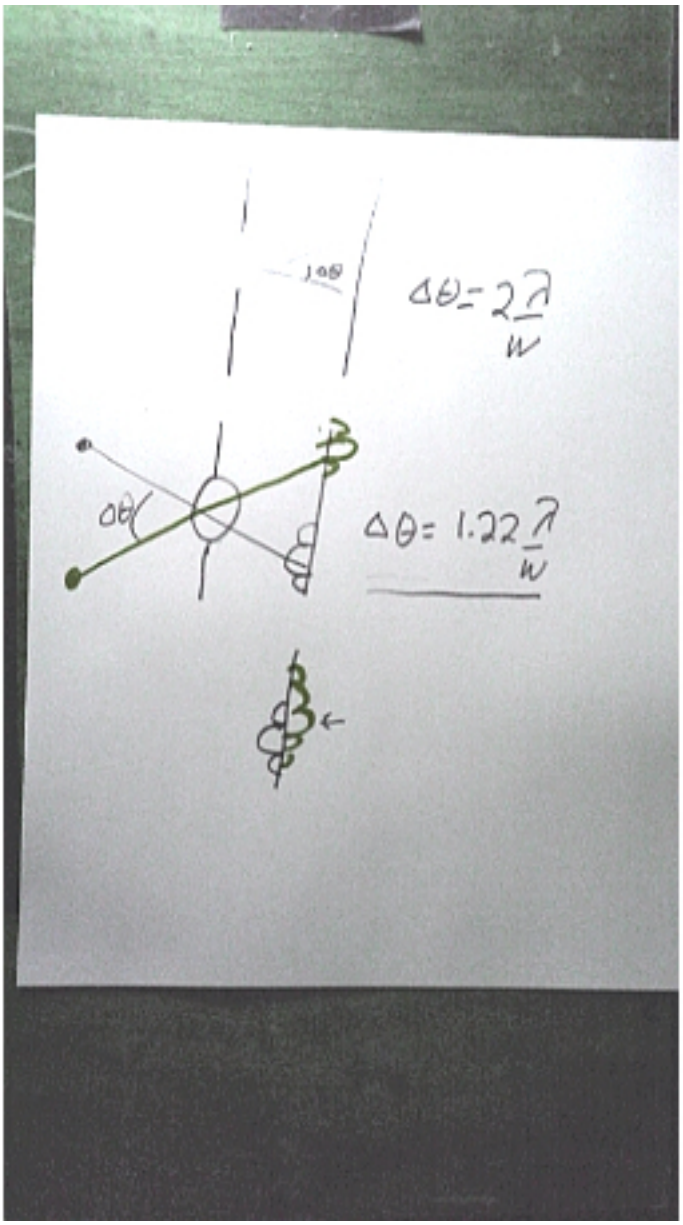
$\Delta y = 3 \times 10^{-2}\,m$

$$Y = \frac{m\lambda L}{d}$$

$$\lambda = \frac{Y_3 \cdot d}{mL}$$

$$= \frac{(10\times10^{-3})(.15\times10^{-3})}{3 \cdot 1}$$

$$\Rightarrow \lambda = 500\text{nm}$$


Δθ
Δθ= 2 λ/w
Δθ= 1.22 λ/w

$\delta = d\sin\theta$

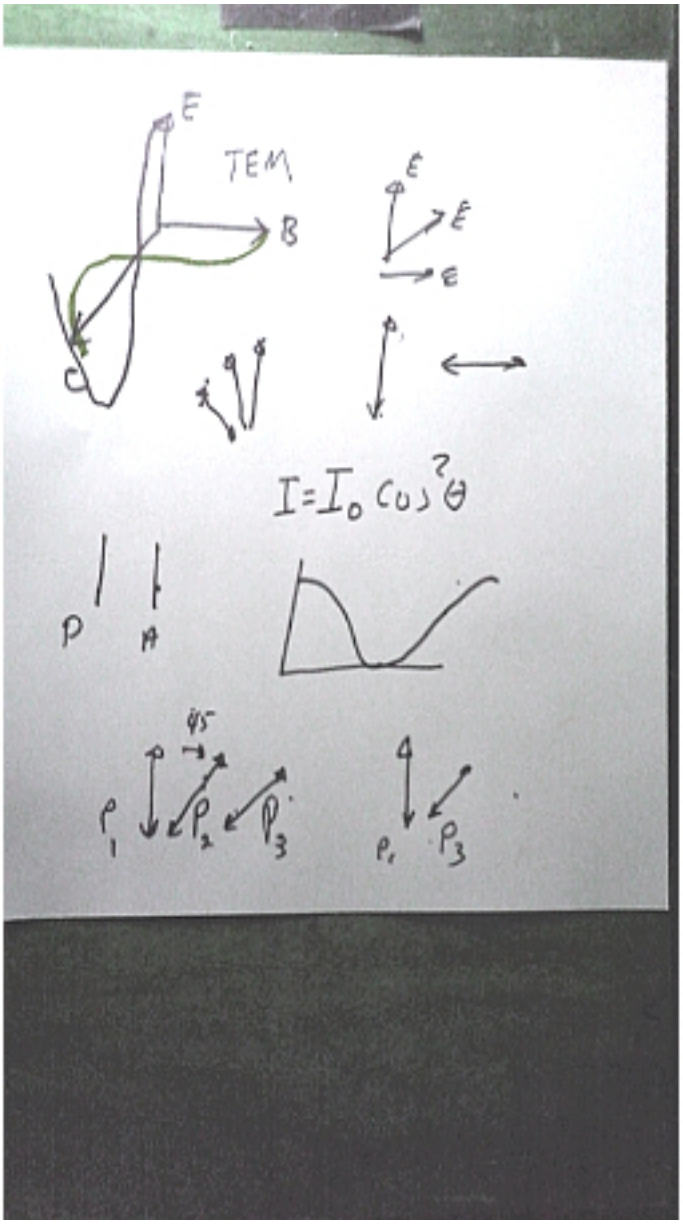
Bright $\delta = m\lambda = d\sin\theta$

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

$\sin\theta_m = \frac{m\lambda}{d}$

$\sin\theta_m = 1 \quad m' = \frac{d}{\lambda}$

$m' \in I < \frac{d}{\lambda}$


E
TEM
B
E
E
E
$I = I_0 \cos^2\theta$
P
A
45
P_1
P_2
P_3
P_1
P_3