

P #10

Ch 24 - pg 775

$$d = .500 \text{ mm} = 5 \times 10^{-4} \text{ m}$$

$$L = 3.30 \text{ m}$$

$$x_1 = 3.40 \text{ mm} = .0034 \text{ m}$$

$$x \approx \frac{m \cdot \lambda \cdot L}{d} \quad \text{for } m=1$$

$$(.0034 \text{ m}) \approx \frac{(1) \cdot \lambda \cdot (3.3 \text{ m})}{(5 \times 10^{-4} \text{ m})}$$

$$\lambda = 5.15 \times 10^{-7} \text{ m}$$

$$(515 \text{ nm})$$