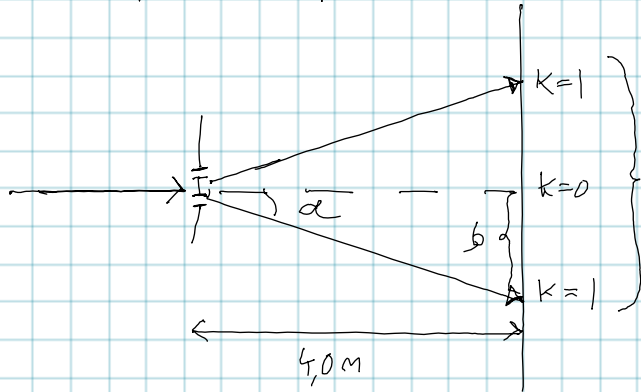


T3-54 s. 112



$$d = 0,60 \text{ mm} = 0,60 \cdot 10^{-3} \text{ m}$$

$$b = \frac{7,50 \text{ mm}}{2} = 3,75 \cdot 10^{-3} \text{ m}$$

$$\tan d = \frac{b}{4,0 \text{ m}} = \frac{3,75 \cdot 10^{-3} \text{ m}}{4,0 \text{ m}}$$

$$d \approx 0,0537^\circ$$

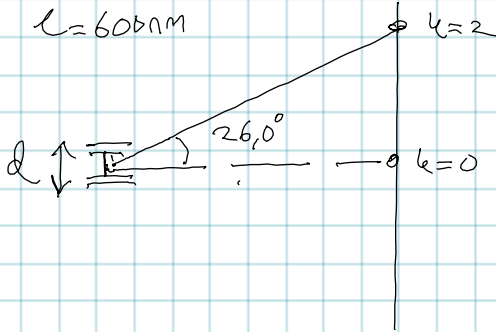
$$d \sin d = k \cdot \lambda$$

$$\lambda = \frac{d \sin d}{k} = \frac{0,60 \cdot 10^{-3} \text{ m} \cdot \sin 0,0537^\circ}{1}$$

$$\lambda \approx 560 \text{ nm}$$

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$$\lambda = 600 \text{ nm}$$



$$a) d \sin d = k \cdot \lambda$$

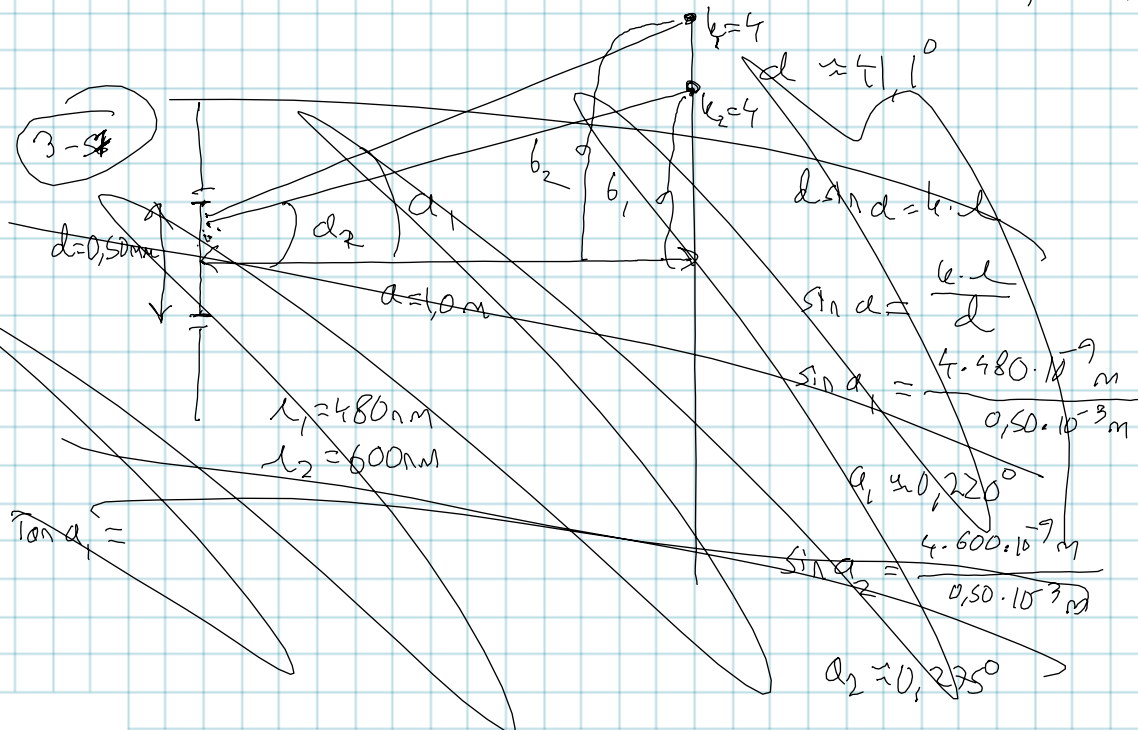
$$d = \frac{k \cdot \lambda}{\sin d} = \frac{2 \cdot 600 \text{ nm}}{\sin 26,0^\circ} \approx 2,74 \cdot 10^{-6} \text{ m}$$

$$d \approx 2,74 \mu\text{m}$$

$$b) d \sin d = k \cdot \lambda$$

$$\sin d = \frac{k \cdot \lambda}{d} = \frac{3 \cdot 600 \cdot 10^{-9} \text{ m}}{2,737 \cdot 10^{-6} \text{ m}}$$

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$$d \sin d = k \cdot \lambda$$

$$\sin d = \frac{k \cdot \lambda}{d}$$

$$\sin d_1 = \frac{4 \cdot 480 \cdot 10^{-9} \text{ m}}{0,50 \cdot 10^{-3} \text{ m}}$$

$$d_1 \approx 0,220^\circ$$

$$\sin d_2 = \frac{4 \cdot 600 \cdot 10^{-9} \text{ m}}{0,50 \cdot 10^{-3} \text{ m}}$$

$$d_2 \approx 0,275^\circ$$