

Similarly angular position of n^{th} minima

$$\theta_n \text{ (in rad)} = \pm \frac{n\lambda}{a}$$

Where $n = 1, 2, 3, \dots$

2. **Angular width of central maxima** –

Since the central maxima is present between the two 1st order minima occurring on either side of the center of the screen, the angular width of central maxima is given by (for $\lambda \ll a$)

$$\alpha \text{ (in rad)} = 2\theta_1 \quad \text{or}$$

$$\alpha \text{ (in rad)} = \frac{2\lambda}{a}$$

3. **Linear width of central maxima** –

$$\alpha \text{ (in rad)} = \frac{X_0}{D}$$

(As, usually the lens L_2 is kept close to the slit, in numerical problems we can take $D \approx f$)

$$\text{or,} \quad X_0 = \alpha \text{ (in rad)} \cdot D$$