

Question 2.6

$n_0 := 1$ Fiber in air

GIVEN:

$\theta_{as} := 42\text{deg}$ Acceptance angle for skew rays.

$$\gamma := \frac{90\text{deg}}{2}$$

$NA := \sin(\theta_{as}) \cdot \cos(\gamma)$ (Equation 2.16)

$NA = 0.473$

$$\theta_a := \text{asin}\left(\frac{NA}{n_0}\right)$$

$\theta_a = 28.239 \text{ deg}$