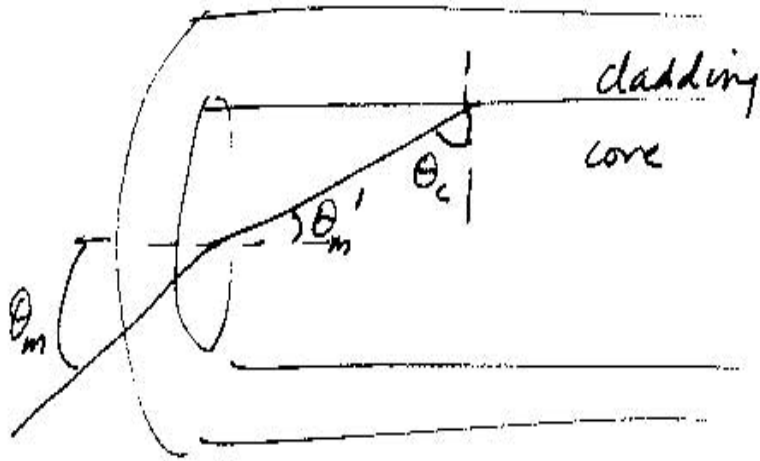


(g) Calculate the angle θ_m .



$$\text{Now } \theta_3 = \theta_c \\ = 73.5^\circ$$

$$\text{and } \theta'_m = 90 - 73.5 \\ = 16.5^\circ$$

Find θ_m from Snell's law and θ'_m

$$n_0 \sin \theta_m = n_1 \sin \theta'_m$$

$$1 \sin \theta_m = 1.46 \sin 16.5^\circ$$

$$= 0.4147$$

$$\theta_m = 24.5^\circ$$