

Information for the Quiz on Units O4 & O5

Things You Must Know

- (1) Rule for reflection
- (2) How to calculate when total internal reflection will occur
- (3) How to draw principle rays and to locate an image

Potential Useful Information

$$n_1 \sin \theta_1 = n_2 \sin \theta_2$$

$$|f| = R/2$$

$$\frac{1}{S} + \frac{1}{S'} = \frac{1}{f}$$

$$M \equiv \frac{h'}{h} = -\frac{S'}{S}$$

$$m = 1 + \frac{25 \text{ cm}}{f} \quad \text{or} \quad \frac{25 \text{ cm}}{f}$$

$$m_{micro} \approx -\left(\frac{T}{f_o}\right)\left(\frac{25 \text{ cm}}{f_e}\right)$$

$$m_{tele} = -\frac{f_o}{f_e}$$

Physical Constants and Data

$$n \approx 1 \text{ for air}$$