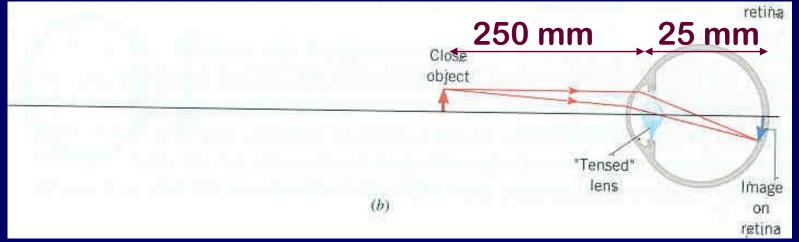


Eye (Tensed)





Determine the focal length of your eye when looking at

an object up close (25 cm).

Object is up close:

$$d_o = 25cm = 250mm$$

Want image at retina:

$$d_i = 25mm$$

$$\frac{1}{250 \,\mathrm{mm}} + \frac{1}{25 \,\mathrm{mm}} = \frac{1}{f}$$

$$f_{tense} = 22.7 \text{ mm}$$

$$f_{relaxed} = 25 \,\mathrm{mm}$$