1. Your aunt just turned 50 and now needs glasses to read.

   (a) What is the name of this condition? (“opia”)
   (b) Does your aunt need converging lenses or diverging lenses?
   (c) Your aunt goes to the store and buys glasses which say +0.75 (meaning, +0.75D). What is the focal length of these glasses?
   (d) Assuming these glasses (from part c) bring your aunt’s near point to 25 cm, what is her near point without corrective lenses?

2. White light is incident on an air-glass interface with incident angle 30° (in air). If the glass is “Crown glass”, what is the angular spread ∆θ in visible light entering the glass? *Hint: See Fig. 35.18.*

[not due; for extra practice]. All problems from Chapter 35 of the 4th edition of Knight:

   Conceptual Questions: 3-5.