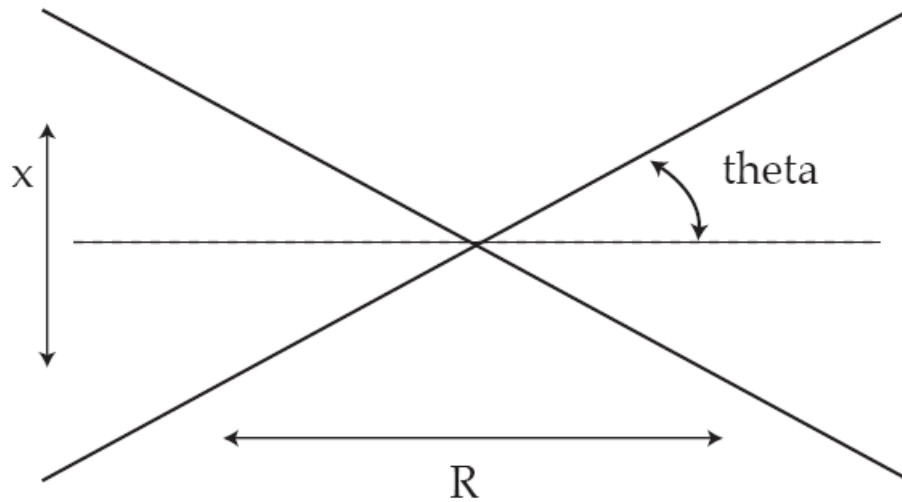# Homework #11 Solutions

Problem #39

$$\frac{\frac{x}{2}}{\frac{R}{2}} = \tan(\Theta) \approx \Theta$$

$$R = \frac{x}{\Theta}$$

$$p_{min} = x\frac{\lambda}{NA}$$

$$\frac{\lambda}{NA} = \sin(\Theta) \approx \Theta$$

$$R = \frac{\lambda}{NA} = \frac{\frac{\lambda}{NA}}{NA} = \frac{\lambda}{NA^2}$$