

6.781
Submicrometer and Nanometer Technology
Homework Set #11

39. Show that the depth of focus of an optical system having a numerical aperture, $NA = 0.3$ is given approximately by

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

A reasonable definition for the depth of focus would be as follows: at half that distance above or below the true focal plane, a point is smeared out to a width equal to the minimum period resolvable by the optical system.

