

Homework 3 (due 3 February 2015)

Bi177-2015

name _____

Since confocal microscopy is very photon starved, it is important to get objectives that are bright.

For this assignment let's assume you have a 10x objective with an N.A. of 0.3. Calculate the N.A. a 20x, 40x and 60x would need to have to be as bright as this 10x.

Do the same for a 10x with an N.A. of 0.5. Also note if the 20x, 40x or 60x would be a dry, water or oil objective.

Hint - Assume Brightness for fluorescence equals NA^4 / Mag^2