Introduction to Telescopes Pre-lab

1. Read through the "Parts of a Telescope" section of the lab. You may be asked to point out the different parts of the telescope in lab to be sure you have read the lab script.

2. Read through the "Properties of a Telescope" section of the lab and answer these questions:

   i. How would the field of view of a telescope change if you were to switch from a 15-mm eyepiece to a 45-mm eyepiece? Would the field of view become larger or smaller?_____ By how much? _____ Explain your answer and SHOW YOUR WORK.

   ii. How much greater is the *light gathering* power of a 8-inch telescope than that of your unaided eye? Assume the pupil **diameter** of a dark-adapted eye is 1/5 inch. SHOW YOUR WORK.

   iii. What is the magnifying power of a 8-inch Celestron telescope when used with a 40-mm eyepiece? SHOW YOUR WORK.

   iv. What is the smallest telescope that can be used to resolve the double star δ Cyg, where the two stars are 2.6" (arcseconds) apart? SHOW YOUR WORK.

