The homework assignment this week is to draft the “Data” and “Analysis & Results” sections of the report on Lab 2. In doing this, please follow the instructions below carefully, and also consult the “Guidelines for Lab Reports” handout.

1. Collect all the charts of Cassiopeia that you have made as a part of Lab 2 (Magnitude Limit lab). You should have three copies: one recording observations made with unaided eyes, one recording observations made with binoculars, and one blank sheet. The blank one is important for purposes of measuring the magnitudes of the stars you observed (as well as the ones you tried to see but couldn’t, i.e., the ones with X’s through them on your charts).

2. Use the xeroxed magnitude key from the Tirion Atlas to measure the magnitudes of all the stars that you observed or attempted to observe. Also record the official names of each of the stars in at least one format (proper name, Bayer name, and/or Flamsteed name). Please be careful NOT to mix Bayer and Flamsteed names.

3. For each of the Cassiopeia charts, create a table that summarizes your results. We will discuss possible formats for these tables in class. Tables may be combined if clarity is not sacrificed (or is improved!) by doing so. Tables should be given numbers and titles (e.g., Table 1: Observations with Unaided Eyes). Tables should be typed or written neatly by hand.

4. For each of the sets of observations (corresponding to each Cassiopeia chart), create a graphical representation of your results. Graphs/plots may be combined if it aids in the clarity of the presentation. Graphs/plots may be made by hand on graph paper if written neatly. Plots should be given figure numbers and captions, e.g. “Figure 1: …”

5. Write the Data section of your lab report. Refer to the Tables that you have made by the numbers you have given them. Refer to the Guidelines for Lab Reports handouts for more about what belongs in this section.

6. Write the Analysis/Results section of your lab report. Refer to the graphs or plots that you have made by the figure numbers you have given them. Refer to the Guidelines for Lab Reports handouts for more about what belongs in this section.

7. As a part of your results, you should determine your estimated magnitude limit with and without binoculars, subject to the conditions on the particular night on which the observations were made. These should be reported in the Analysis/Results section. Come to class next time ready to discuss your results.