

Astro 421 Homework: Due Sept 13 2018

Start easy to get into the swing of things

S+G refers to the textbook

- 1) S+G Problems 1.3 and 1.8 both about stellar luminosities and a reintroduction to magnitudes (I did not cover magnitudes in class, but they are clearly described in the text)
- 2) S+G 1.4 Energetics of nuclear burning and $E=\epsilon mc^2$, where ϵ is efficiency.
- 3) S+G 1.12- need to understand black body formula (not covered in class)
- 4) Briefly explain why the light from galaxies is dominated by different types of stars as a function of age and star formation rate.
- 5) Give a short description of the 3 of the differences between elliptical and spiral galaxies in an observational and physical sense.
- 6) Describe one of the patterns in the properties of galaxies (e.g. mass, morphology, gas content, age, metallicity etc etc)