

HW070319

due in a week

- A star of which spectral type has the strongest Na I absorption lines? At approximately what wavelength is this line normally found?
- What is the approximate mass of a main-sequence star that is 10,000 times as luminous as the Sun? What is the approximate luminosity of a main-sequence star whose mass is 1/10 that of the Sun?
- What if the Sun were an M-type star, rather than a G-type star? Assume the Earth orbiting the M-type Sun had the same composition and orbital distance as it does today. Imagine the difference this would have been in terms of climate, tides, impacts of meteoroids, habitability, etc.