Physics 1311
Spring 2020
Homework/Study 8 (two-sided)

Chapter 11

1. What determines whether a forming star becomes a red dwarf or a brown dwarf?

2. How does reddening allow us to detect dust clouds?

3. How might an astronomer detect gas clouds that cannot be seen?

4. What event marks the transition from protostar to real star?

5. How are complex molecules like water and carbon monoxide detected in space?

6. 21 cm radio radiation provides an advantage over light for studying hydrogen clouds in space. Why is this so?

7. Where does a Stage 4 protostar get its energy?

8. What properties of star clusters are so valuable for studying star formation?

9. What does the H-R diagram of Omega Centauri (Fig. 11.29b) reveal about the cluster?

10. What is the average density of interstellar dust?

11. Where on the H-R diagram does a forming star land at Stage 7?

12. What is an evolutionary track?