

Homework Assignment 6

ASTR4201, Fall 2020

Corresponds to Chapter 6 of "To Build a Star" (TBS) by E.F. Brown

1. TBS exercise 6.1 Team: 3 Lead: Harshil
2. TBS exercise 6.2 Team: 4 Lead: Gula
3. TBS exercise 6.3 Team: 2 Lead: Michael
4. TBS exercise 6.4 Team: 3 Lead: Ryan
5. TBS exercise 6.5 Team: 5 Lead: Robert
6. TBS exercise 6.6 Team: 1 Lead: Anthony
7. TBS exercise 6.7 Team: 2 Lead: Sam
8. TBS exercise 6.8 Team: 4 Lead: Jacob
9. TBS exercise 6.9 Team: 5 Lead: Justin
10. TBS exercise 6.10 Team: 2 Lead: Quinn
11. TBS exercise 6.11 Team: 3 Lead: Josh
12. TBS exercise 6.12 Team: 1 Lead: Gavin
13. *See below* Team: 1 Lead: Brit

Sirius, the brightest star in the night sky, is actually a double star system consisting of a main sequence star (Sirius A) and a white dwarf companion (Sirius B). The mass of Sirius A is quite well known, e.g. from Kepler's laws, to be ~ 2 solar masses. What would you estimate its radius to be and why?