Corresponds to Chapter 1 of "To Build a Star" (<u>TBS</u>) by E.F. Brown

1. TBS exercise 1.1   Team: 1   Lead: Britt

2. TBS exercise 1.2   Team: 2   Lead: Sam

3. TBS exercise 1.3   Team: 4   Lead: Jacob

4. TBS exercise 1.4   Team: 3   Lead: Ryan

5. TBS exercise 1.5   Team: 1   Lead: Anthony

6. TBS exercise 1.6   Team: 2   Lead: Michael
   Hint: Recall the quotient rule

7. TBS exercise 1.7   Team: 3   Lead: Harshil

8. *See below*   Team: 2   Lead: Quinn
   Suppose we have a K-type star that is 100 times more luminous than the sun. Given that the sun has a surface temperature of 5780K and a radius of 6.957×10^8m, what is the radius of our K-type star?

9. TBS exercise 1.8   Team: 3   Lead: Joshua

10. *See below*   Team: 4,5   Lead: Gula, Justin
    Calculate B-V for the sun. Compare to the known value of 0.66.
    Hint: Assume the Flux in a band will correspond to the peak flux across the Full-width at half-maximum. Note that Vega is defined to have B-V =0.

11. TBS exercise 1.9   Team: 1   Lead: Gavin

12. *See below*   Team: 5   Lead: Robert
    The trend for B-V versus spectral type is shown below. Why does B-V hardly change after ~20,000K?