Astronomy 16 – Modern Astrophysics
Fall 2014
Homework 8
due: never! this is optional

It is very important to present your solutions neatly and clearly. Use units when appropriate, state where your numbers come from, explain what you're doing. Use sketches when you think they'd be useful. Make sure you answer all the parts of each problem, including my supplemental questions for some of the book problems.

1. Ryden & Peterson, problem 19.8 (p. 466).

2. Ryden & Peterson, problem 20.2 (p. 487).

3. Ryden & Peterson problem 20.7 (p. 488). Give your answer in solar masses as well as kg. **And**: if the mass that you found were composed entirely of evenly distributed one solar mass stars, within a spherical volume with a radius corresponding to 0.1 arc seconds, what would the average separation be between stars?