Astronomy 6 – Introductory Cosmology
Fall 2013

Homework #1
Due Monday, November 11 by 5pm

For full credit you must show your work, use units, and include explanations, sketches, and graphs whenever you think they might be useful. Clear writing (both figuratively and literally) is important. Note that useful physical and astronomical constants can be found in the appendices of the textbook.

Note that the first two problems were assigned during the first week of class, and so you should already have solutions somewhere. You might want to revisit the problems and your solutions now, having learned more since they were first assigned.

1. Ryden & Peterson problem 20.1 (p. 487)

2. Ryden & Peterson problem 20.2 a and b (not c, though) (p. 487)

3. Ryden & Peterson problem 23.1 (p. 549)

4. Ryden & Peterson problem 23.2 (p. 549)

5. Ryden & Peterson problem 23.3 (p. 549) Express the neutrino mass you find in part (b) in eV as well as in kg.

6. Ryden & Peterson problem 23.4 (p. 550)