Homework #5

Astronomy 400B

Assignment: Due Apr 29 in class

Problem 1: S&G problem 8.10. Note that that textbook seems to have an error. The correct answer should be $\Omega_r = 2 \times 10^{-5} h^2$.

Problem 2: S&G problem 8.11

Problem 3: S&G problme 8.17

Problem 4: Verify these statements in lecture that:

a) the ratio of the number density of photons to that of nucleons is about 1.8×10^9 for b) the energy density in the CMB at redshift z corresponds to about $(1 + z)$ MeV per nucleon. for these, use $\Omega_b h^2 = 0.02$.