Problem Set #4

Due: Thursday, April 13, 2006, in class

Five (5) problems from Dodelson, Modern Cosmology:

1. Chapter 5, Exercise 3
   There is a typo in Eq. 2.101 mentioned in the errata for the textbook:
   "Page 56, Eq 2.101: In the denominator P_0 should be P^0
   (superscripted instead of subscripted). It matters if you want to
   show that there are no factors of Φ, Ψ in the stress energy tensor.
   Thanks to Eduardo Rozo."

2. Chapter 5, Exercise 5
3. Chapter 5, Exercise 14
4. Chapter 4, Exercise 7
   (A solution is available in Appendix A of Dodelson.
    Proceed through the exercise referring to the printed solution if necessary).
5. Chapter 4, Exercise 10