PHYS 503/629 – Homework No. 5 – DUE TUESDAY, 05/03/2005

Problem 1. Problem 18.2 of Hartle's book.

Problem 2. Problem 18.11 of Hartle's book.

Problem 3. Problem 18.19 of Hartle's book.

Problem 4 (Only for 629 level or for extra credit). Derive Einstein's field equations (Friedmann equation, Raychaudhuri equation, and conservation of stress energy) for the FRW metric.