Dr. Christian Scheideler
Johns Hopkins University

Baltimore, Feb. 27 2001

Modern Complexity Theory

Spring 2001

Assignment 5

Problem 14 (4 points)**:**
Prove Lemma 5.4.

Problem 15 (3 points)**:**
Prove Lemma 5.6 a) and b).

Problem 16 (3 points)**:**
Show that the problem of deciding whether a set of linear Diophantine equations has a solution is NP-complete. (Note that for this to be true one important prerequisite is that if such a set has a solution, the solution must be small.)