Assignment 2

Foundations of Logic Programming

October 26, 2012

- 1. Let |S| be the number of elements of any set S and let S_1, S_2 be sets.
 - (a) Find a counterexample to $|S_1 \setminus S_2| = |S_1| |S_2|$.
 - (b) Prove that $|S_1 \setminus S_2| = |S_1| |S_2|$, if $S_2 \subseteq S_1$.
- 2. Prove that for any n, the lexicographic order \succ_n is well-founded.
- 3. Find a set of equations for which the Martelli-Montanari algorithm yields two different sets of equations in the solved form. (Hint: recall that the choice of unsolved equations for rule application is "don't care" nondeterministic).