CIS 6930: Foundations of Software Security
Spring 2008
Assignment 1

Write a formal, two-column proof of the following theorem:

$$\forall s, s' : (\ (s \mapsto^* s')\ \iff\ (\exists\, n : (\vdash n : nat) \wedge (s \mapsto^n s'))\ )$$

Hint: Structure your proof as two subproofs, one for the *if* direction ($\implies$), and the other for the *only-if* direction ($\impliedby$), of the theorem.

Complete the assignment by yourself. At the end of your proof, write the following: "I pledge my Honor that I have not cheated on this assignment." Sign your name after your pledge.