CS486 Applied Logic Assignment 6 Due Thursday, Mar 15, 2001

Reading: Please read Smullyan Chapter IV, p. 43-52 and p. 52-55.

Exercises:

1. Solve the odd exercises in the first group on p. 56.

2. Prove

$$\forall x[Px \supset C] \Leftrightarrow [(\exists x)Px \supset C]$$

   from the second group on p. 56.

3. Show that over a finite domain, $D=\{a_1, ..., a_n\}$, the universal quantifier $(\forall x)Px$ is equivalent to $Pa_1 \wedge Pa_2 \wedge ... \wedge Pa_n$. Use semantic arguments of the kind on p. 49.