

Computability
First-Order Logic

Winter 2007
Assignment #4

This assignment is due in class on Thursday, February 8.

A. p. 52, #4a

B. p. 65, #3

C. p. 66, #5

D. p. 66, #6

E. p. 66, #7

Note: Problems 6 and 7 together show that tautological implication and deducibility are the same thing: if we let $\Sigma \vdash \tau$ mean that there is a deduction of τ from Σ , then problems 6 and 7 show that $\Sigma \models \tau$ iff $\Sigma \vdash \tau$. Proving the corresponding fact for First-Order Logic will be the crowning achievement of our work this quarter.