MATH 302 Discrete Mathematics

Assignment 3. Due on Wednesday, February 15, 2017

Read: Sections 1.3 – 1.5

Definition: Write down the definitions for the following terms. (5 points)

- tautology
  - the universal quantification of $P(x)$, universal quantifier
- counterexample
  - the existential quantification of $P(x)$, existential quantifier
- De Morgan’s Laws for Quantifiers (Just write down the logical equivalent statement)

Problems to be graded: (10 points)

- §1.3/ 14, 17, 22.
- §1.4/ 9, 12, 25, 44.
- §1.5/ 24, 30, 48.

Suggested Practice Problems:

- §1.3 / 5, 8, 12, 18, 34, 54.
- §1.4/ 7, 10, 11, 13, 14, 21, 23, 26, 33, 34, 36, 41, 46, 47.
- §1.5/ 2, 3, 11, 14, 27, 31, 33, 34, 39, 40.