

MATH 302 Discrete Mathematics
Assignment 2. Due on Wednesday, February 1, 2012
6th edition of the textbook

Read: Sections 1.1, and 1.2.

Definition: Write down the definitions for the following terms.

proposition

truth value

converse, contrapositive, and inverse

tautology

contradiction

Problems to be graded:

§1.1/ 7, 18, 23

§1.2/ 14, 17, 18, 22, 30.

In addition, do

1. Use a truth table to verify the second De Morgan law

$$\neg(p \vee q) \equiv \neg p \wedge \neg q.$$

2. Simplify the proposition

$$(p \vee q) \wedge \neg(\neg p \wedge q).$$

Practice problems:

§1.1 Page 16: 3, 4, 9, 10, 14, 30.

§1.2 Page 28: 5, 8, 12, 34, 54.