Topics for Midterm 1

1. Intuitive Set Theory
   - Relations between sets: equality and inclusion $=, \subseteq$
   - The membership relation: $x \in A$
   - Operations on sets: intersection, union, set-difference, complement $
\cap, \cup, \setminus, \sim$
   - Verification of properties of set operations with the help of diagrams
   - Cardinality of sets
   - Representations of sets
   - The correspondence between laws of set theory and logical laws

2. Boolean Expressions: textbook paragraphs 2.1, 2.3, 2.4 (from paragraph 2.4 only those parts, which are necessary to work out problem #6 of Homework 1)

3. Arithmetic Expressions and the Inference Rule of Leibniz: textbook paragraphs 1.1, 1.2, 1.3, 1.6

Concentrate on problem solving. Make sure to review Homework 1 & 2 problems before the midterm.