## Math 300A&BIntroduction to Mathematical ReasoningFall 2009Assignment #6: Due Wednesday, 11/18/09

## Part II:

- 4. Eccles, page 73, Exercises 6.5, 6.6, 6.7.
- 5. Prove Theorem 6.3.4(iv) (De Morgan's Laws).
- 6. Eccles, page 115–116, Problems 3, 4, 6, 7\*.

\*When Eccles says "by taking complements," he is suggesting a way to prove the second statement of Problem 7 ( $A^c \subset B$  if and only if  $A \cup B = U$ ) by using the first statement, together with the properties of Theorem 6.3.4. This should make the proof of the second statement easier than that of the first.