CS/MA320 HW1-Part 2 (corrected 9/16/09)

I'm assuming you have the Rosen Text now or will soon. I will try to find extra Faculty copies to lend to people who don't, otherwise you need to find someone in class who can share with you. Solutions are due in class, Monday, Oct. 21 or under my door on Tuesday by 2:00 PM. (NO LATER OR IT WON'T COUNT!). Pencil on paper is fine. Solutions will be on-line by Tuesday evening, and Quiz 1 will be on Wednesday, Oct. 23, in the first 25 minutes.

First, I list Reading Assignment & Solved Exercises to look at. First note, you're NOT responsible on Exams for LINKS (e.g., ARISTOTLE pg 2, GEORGE BOOLE, pg 5); these are famous people and if you have the time, you might want to look at the LINKS for your own entertainment.

1.1 Reading. All of this is relatively important. A lot of it is how to translate between Logic and English sentences -- I will not spend much time on this in class, but will answer questions. When in doubt as to importance of coverage, consider the Exercises with Solutions for which you're responsible (odd-numbered ones are solved starting on page S-1), and of course the Exercises For You To Solve (even-numbered ones).

Exercises With Solutions in 1.1: p 16: 5,7,11,15,23,27,29,33,51,63. NOTE: There is nothing to turn in, but these Exercises are fair game for Quizzes and Exams. You don't have to look at solutions for all parts of an Exercise if you know the answers without looking. Up to you.

Exercises For You To Solve in 1.1: I will assume that the solutions to HW1-Part 1, and exercises you've studied with Solutions cover this.

1.2 Reading. Example 3 is important, and you should mark with a sticky Table 6 for Open-Book Quizzes and Exams.

Exercises With Solutions in 1.2: p 28: 1,7,9,13,15,19,23,27,31

Exercises For You To Solve in 1.2: Again, I will assume this is covered by HW1-Part 1.

1.3 Reading. Skip "Other Quantifiers" on pp. 37-38. Slip Logic Programming pp. 45-46. You might want to mark with a sticky Table 2. A lot of this is English-Logic translation.

Exercises With Solutions in 1.3: p 46: 5,9,13,23,29,43,45,47,59,61.

Exercises For You To Solve in 1.3: pg. 46: 32ab, 38 a-e, 60 a-c.

1.4 Reading. Nested Quantifiers: Examples 1-5 and 14 are sufficient.

Exercises With Solutions in 1.4: p 58: 3,9,17,27,31,39,45.

Exercises For You To Solve in 1.4: pg 58: 12 a-e, j-m, 16 a-e, 40.

1.5 Reading. This Chapter is an introduction to a kind of formal proof. It's good to see how these work but I won't give you any Exam questions about chains of reasoning, just how individual rules work, e.g. to explain some step in Examples 6 or 7. I also will also not ask you to identify errors in proofs. Understand everything through Example 7, then skip to pg. 70, for quantified statements and understand Examples 12 and 13.

Exercises With Solutions in 1.5: pg. 72: 3,13 ab.

Exercises For You To Solve in 1.5: pg. 73: 14.

1.6 Reading. Introduction to Proofs: study through Example 14, pg 83. I won't ask you to find mistakes in proofs (the last part of this section.)

Exercises With Solutions in 1.6: pg. 85: 11, 21, 33.

Exercises For You To Solve in 1.6: pg. 85: 8, 22, 30

1.7 Reading. Proof Methods. Study through Ex 7, skip to Looking for Counterexamples, pg. 96 and Ex. 17. Skip rest of section.

Exercises With Solutions in 1.7: pg. 103: 18.

Exercises For You To Solve in 1.7: pg. 102: 6