## CS 451 F01 Automata and Formal Languages, Spring 2007 Quiz 1 Solutions

Quiz 1 was given in class on Monday, January 22, 2007.

1. [2 pts] What is a "counterexample"?

A *counterexample* is an example showing that a proposed general theorem is false, by showing that it is not true in at least one case.

2. [3 pts] Consider the statement "If today is Tuesday, then it is raining."2a. [1.5 pts] Write the contrapositive of this statement.

If it is not raining, then today is not Tuesday.

2b. [1.5 pts] Write the **converse** of this statement.

If it is raining, then today is Tuesday.