**CSE191, Spring 2011** **Assignment 2 Makeup** **Due —-**

(1) Rosen, page 34, 4(a). You must not only give the full truth table, but also give some short-essay-answer interpretation of *why* the two sides are equivalent, as if you could try to prove it without the table. (3+3 = 6 pts.)

(2) Rosen, page 35, 8(a,b). For each one, assign letters to the atomic propositions, then write the compound one given in the exercise symbolically, then use deMorgan to negate, and translate the negation back into English. (12+12 = 24 pts.)

(3) Do AND and XOR form a functionally complete pair of operations? Try to prove your answer, either by simulating NOT which together with AND gives you functional completeness, or by proving that NOT cannot be done! (18 pts. total)

(4) Rosen, page 35, exercises 14, 26, 30, and 32 ($4 \times 6 = 24$ pts., for 72 total on the problem set).