CSE191, Spring 2011   Assignment 9m   Due Mon. 4/11, in class

Reading: After sequances and sums, following Prof. Rapaport's syllabus, we jump to Chapter 4. (Chapter 3 is covered at ground level in CSE250, and reinforced in CSE331.) This is the hardest material, nuts-and-bolts for the last month. First skim Section 4.4, just Algorithms 1 and 2; lectures will re-visit a recursive algorithm for squaring a number which I've actually already mentioned. Then take it slow—so Section 4.1 is good enough for Wed., and Fri. For Monday read section 4.2, then take on Section 4.3.

This assignment parallels Prof. Rapaport's HW10.

(1) Rosen, page 147, problem 32. (3+3 = 6 pts.)

(2) Rosen, page 147, problems 36 and 40. Also please show an example for problem 37 a little bit different from the one you can look up in the answer booklet. When doing 40, think about *why* you get equality always, even in the intersection case. (6+6+3+3+3 = 21 pts.) [Cannot look at answer key]

(3) Rosen, page 147, problem 27(b,c,d). Find $f^{-1}(S)$ too. (8+8+8 = 24 pts.)

(4) Rosen, page 149, problem 70(a,e).   Fully-formal proofs are not needed—counterexamples too need only show the algebra. (6+6 = 12 pts.)

(5) Rosen, page 161, problem 4(d), then do "(e)" $n + n^3$. (3+3 = 6 pts.)

(6) Rosen, page 161, problem 6(b,c,g). (12 pts. total)

(7) Rosen, page 162, problem 16(c) (9 pts., for 93 total on the set)