

Math 213 - Homework 2

Assigned: 8/31/07

Due: 9/5/07 at the start of class.

Notation: Exercise a.b.c(d) stands for part (d) of Exercise c from Section a.b.

Problems:

- (1) 2.3.12(a)
- (2) 2.3.12(b)
- (3) 2.3.18(a)
- (4) Let $f_1(x) = x$, $f_2(x) = 1 - x$, $f_3(x) = 1/x$, $f_4(x) = 1/(1 - x)$, $f_5(x) = x/(x - 1)$, and $f_6(x) = (x - 1)/x$. For each pair (i, j) with $1 \leq i \leq 6$ and $1 \leq j \leq 6$, find some number k so that $f_i \circ f_j = f_k$.
- (5) 3.1.18.
- (6) 3.1.34.
- (7) 3.2.12.
- (8) 3.2.18.
- (9) 3.2.34.
- (10) Show that $\log(n \log(n)) = \Theta(\log(n))$.