391 Homework 2

• Read section 1.2 of the book.

• Exercises 1.1: 4(d),(g) (I do not insist that you prove these by induction – any logically correct proof will do!).

• Exercises 1.2: 1(b),(d),(f), 7, 8.

• Given natural numbers $a, b$, the least common multiple $LCM(a, b)$ of $a$ and $b$ is defined to be the smallest positive number that is divisible by both $a$ and $b$. By thinking about how $a$ and $b$ factorize into primes, prove that $LCM(a, b) = ab/GCD(a, b)$.

• Exercises 1.2: 2 (try some examples and use the fact that $1 = 2 \times 4 - 7$; further hints will be given in class on Monday!), 19.

• Think about Exercise 1.2 question 17 – I am going to set this question next week!