

## 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!*