HOMEWORK 3

DUE 4 MAY 2015

SHOW ALL YOUR WORK.

Part I. From the textbook (i.e. Leveque)

Section 6.1: 1, 2, 8

Section 6.2: 1 – 5

Part II.

1. Show that if m and n are positive, relatively prime integers, there is a $1-1$ correspondence (i.e. bijection) between the following sets

$$\{d \in \mathbb{Z}_{>0}; d \mid mn\} \overset{1-1}{\longleftrightarrow} \{d_1 d_2; d_1, d_2 \in \mathbb{Z}_{>0}, d_1 \mid m, d_2 \mid n\}$$

2. Prove Theorem 6.4 from the textbook.