HOMEWORK 9, PART I

DUE 7 DECEMBER 2013

Section 5.1: 1–4

Section 5.2: 3, 7 – 11

Section 5.3: 1–4

1. Let $a, b, c \in \mathbb{Z}_{\geq 0}$ such that $(a, b) = 1$ and $ab = c^2$. Prove that there exist integers $m, n \in \mathbb{Z}$ such that $a = m^2, b = n^2$. Show that, in this case, m and n must be coprime.