CSE 16
Homework Assignment 8 Review only – do not turn in

Problems from *Book of Proof*:

(11.3) 2, 4, 6, 8, 10, 12
(11.4) 2, 6
(11.5) 2, 4, 6

Additional Problem:
(This is a slight re-wording of 11.3 # 16)

Let $A = \{ (a, b) \mid a, b \in \mathbb{Z} \text{ and } b \neq 0 \}$. Define a relation $R \subseteq A \times A$ on A by

$$(a, b) R (c, d) \text{ iff } ad = bc.$$

In other words

$$R = \{ ((a, b), (c, d)) \mid a, b, c, d \in \mathbb{Z} \text{ and } b \neq 0, d \neq 0, ad = bc \}$$

Prove that R is an equivalence relation.