

2G1516 Formal Methods – HT05  
Specification Formalisms:  
Temporal Logic and Automata on Infinite Words

**Exercise 1** Prove soundness of the axiomatisation of LTL given in Peled p. 122.

**Exercise 2** (Peled 5.2.1)

**Exercise 3** (Peled 5.4.1)

**Exercise 4** (Peled 5.10.1)

**Exercise 5** (Peled 5.10.2)

**Exercise 6** (Peled 5.10.3)

**Exercise 7** Give Büchi automata corresponding to the traffic light formulas (5.1), (5.2), (5.3) in Peled.