You may work with other students from class, but everyone should write up solutions independently.

Homework is due by the end of class time, either as a hard copy or email attachment.

Remember that no late homework is accepted, but you have two drops.

(1) (25 points) Exercise 2 (Lemmon p. 33)
(2) (35 points) Exercise 1.a,f,g,j (Lemmon p. 41)
(3) (10 points) Exercise 4 (Lemmon p. 63)
(4) (30 points) Show that the following are well-formed formulas by constructing parse trees as I did in lecture. (Note: If you are going to reference clauses from the definition of well-formed formulas, use the labels Lemmon uses. That is, when I gave some clauses (a) through (g) for that definition in lecture, I put them in a different order than in the text.)

(a) \((P \lor \neg P)\)
(b) \(\neg(P \rightarrow (Q \rightarrow \neg P))\)
(c) \(((P \rightarrow Q) \lor \neg P) \rightarrow R) \rightarrow T)\)
(d) \((\neg B \& \neg C) \lor (A \& B)\)
(e) \(((P \rightarrow (Q \rightarrow R)) \rightarrow ((P \rightarrow Q) \rightarrow (P \rightarrow R))\))