

Exercise Sheet 12f

Propositional Logic – Natural Deduction

Let F be the formula $((A \rightarrow B) \rightarrow C) \rightarrow \neg A \rightarrow C$
and let G be the formula $(A \rightarrow C) \rightarrow (B \rightarrow C) \rightarrow \neg(A \vee B) \vee C$

1. Provide parse trees corresponding to F and G
2. Provide a constructive Natural Deduction proof of F
3. Provide a classical Natural Deduction proof of G
4. Are F and G equivalent? Justify your answer.