

Exercise Sheet 12c

Propositional Logic – Natural Deduction

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

1. Provide parse trees corresponding to F and G
2. Provide a constructive Natural Deduction proof of F
3. Provide a Constructive Natural Deduction proof of G
4. Provide an example of a valuation satisfying F . Provide an example of a valuation satisfying G .