

Tue Sept. 20, 2011

PLAN

1. Discuss homework, mini projects. Be prepared to suggest a project by Thur Sept. 29.
2. More examples of evidence semantics
3. Proof rules and definition of evidence
4. Extracting evidence from proofs
5. Examples of extraction

Examples

1. $((P \& Q) \Rightarrow \perp) \Rightarrow ((P \Rightarrow \perp) \vee (Q \Rightarrow \perp))$ pseudo negation
2. $P \vee (Q \& R) \Rightarrow (P \vee Q) \& (P \vee R)$ distribution
3. $((P \& Q) \Rightarrow R) \Rightarrow P \Rightarrow (Q \Rightarrow R)$ "Currying"
4. $P \Rightarrow \sim \sim P$ real negation $\sim P$ is $(P \Rightarrow \text{False})$
5. $\text{False} \Rightarrow P$
6. $(P \Rightarrow Q) \Rightarrow \sim Q \Rightarrow \sim P$
7. $\sim (P \& Q) \Rightarrow (\sim P \vee \sim Q)$

Puzzler: Show $\sim \sim (P \vee \sim P)$ for Thursday

Note $(P \vee \sim P)$ does not have evidence, nor does $\sim \sim P \Rightarrow P$.