

INFO I201
Homework 4
Due 05/21/13.

Q1. Give natural deduction proofs for the following sequents:

1. $A, A \longrightarrow B, B \longrightarrow C \vdash A \wedge C$
2. $(P \wedge Q) \longrightarrow R \vdash P \longrightarrow (Q \longrightarrow R)$
3. $A \wedge B, B \longrightarrow C \vdash A \longrightarrow C$
4. $P \longrightarrow (Q \longrightarrow R) \vdash (P \wedge Q) \longrightarrow R$
5. $A, B, (A \wedge B) \longrightarrow (C \wedge D) \vdash C$
6. $A \longrightarrow C, B \longrightarrow C, B \longrightarrow D \vdash (A \wedge B) \longrightarrow (C \wedge D)$