

**Logic 1, WS 2008. Homework 5, given Nov 27, due Dec 4.**

1. Prove the reversibility of the rules  $\wedge \vdash$ ,  $\neg \vdash$ ,  $\vdash \neg$ .
2. Find rules for  $\vee \vdash$ ,  $\vdash \vee$  and prove their reversibility.
3. Show how to eliminate  $\vee \vdash$  by reducing it to rules from the “small” calculus.
4. Find by elimination the rules for *modus tollens* and for *unit resolution* and investigate which formula can be deleted.