

**Logic 1, WS 2008. Homework 7, given Dec 11, due Dec 18.**

1. Prove that the quantifier can be eliminated if there are no occurrences of the quantified variable.
2. Prove that the part of the formula containing no occurrences of the quantified variable can be moved out of the quantifier scope.
3. Investigate the possibility of splitting the universally and the existentially quantified conjunctions and disjunctions. (For instance find a counterexample for the split of the existentially quantified conjunction.)