Assignment 1

1. Prove Fact 1: A set of clauses S is satisfiable in FOLE iff S is satisfiable in FOL.

2. Prove that: If a set S is saturated by the rules Γ, and Γ is refutation complete, then the empty clause is in S or S is satisfiable.

3. Prove Fact 2: Let ϕ be a formula of FOL, and ϕ' be obtained from ϕ by replacing all non-equational atoms with appropriate equations. Then ϕ is satisfiable iff ϕ' is satisfiable.