

Assignment 2

Theorem Proving with Equality

1. Prove that: If a set S is saturated by the rules Γ , and Γ is refutationally complete, then the empty clause is in S or S is satisfiable.
2. 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.
3. Finish the proof of the refutational soundness of \mathcal{B} (soundness of Positive Factoring).