1 A review of automatic theorem proving

1.1 Introduction

– Proving B follows from A: conditions of **first-order predicate calculus**
– Single non-empty collection D: **universe of discourse**
– Relation symbols on D^n (n is degree of relation)
– Relation symbols with $n = 0$, truth value already determined
– Variables, arbitrary values of D
– Terms, from functions composed with their arguments
– Atomic formulae or atoms: relation symbol followed by a parenthesized list of terms; either T or F
– B is said to follow from A iff no way for D to be chosen, so that $(A \wedge \neg B)$ is T.
– Statement can't be T is **unsatifiable**. If choice that is T, satisfiable.

1.2 A quick summary of the background theory

– Show statment, S, containing $n \geq 0$ vars, is unsatisfiable S is treated as a combination of atoms.
– $S(x_1, ..., X_n)$, show no interpretation of *vocabularly* $R_1..., R_k$, $f_1, ...f_m$ of S which makes S T.

2   Introduction

This is a test