Algorithms Correctness and Efficiency

Predicate calculus

Predicate calculus provides a richer representation language than propositional calculus:

It provides:

- objects and proprieties
- relationships between objects(functions)
- quantification(arrays)

Syntax

Logical symbols(static meaning)

- punctuation: () , .
- connectives: $\neg$ (not), $\wedge$ (and), $\vee$ (or), $\rightarrow$ (conditional), $\forall$ (universal quantifier), $\exists$ (existential quantifier), $=$ (equals)
- variables:x,y,z,x1,y1,z1

Non logical symbos

- function symbols: *father*, *mother*, *sum*
- predicate symbols: *Man*, *Woman*, *Married*

Atomic Formulas

- terms – every variable