

# Resolution in first order logics

- Eliminate biconditionals and implications
- Apply De Morgan rules
- Standardize apart variables
- Skolemize all existential instantiation
- Drop universal quantifiers
- To CNFs
- Resolution by instantiation

# Example

- KB:  $\forall x : [\forall y : f(y) \Rightarrow g(x, y)] \Rightarrow [\exists y : h(y, x)]$
- Sentence:  $[\forall x : \neg h(x, C)] \Rightarrow [\exists y : f(y) \wedge \neg g(C, y)]$