



# Logical Inference 4

## wrap up

### Chapter 9

# Summary

- Logical agents apply inference to KB to derive new information and make decisions
- Basic concepts of logic:
  - Syntax: formal structure of sentences
  - Semantics: truth of sentences wrt models
  - Entailment: necessary truth of one sentence given another
  - Inference: deriving sentences from other sentences
  - Soundness: derivations produce only entailed sentences
  - Completeness: derivations produce all entailed sentences
- FC and BC linear time, complete for Horn clauses
- Resolution is sound and complete for propositional and first-order logic