Midterm format

- Date: **10/10/2002 from 11:00am – 12:20 pm**
- Location: **THH 101**
- Credits: 35% of overall grade
- Approx. 4 problems, several questions in each.
- Material: everything so far, up to slide 27 in this file.
- **Not** a multiple choice exam
- **No books** (or other material) are allowed.
- Duration will be 1:20 hours.
- Academic Integrity code: see class main page.

Last time: Logic and Reasoning

- Knowledge Base (KB): contains a set of sentences expressed using a **knowledge representation language**
  - TELL: operator to add a sentence to the KB
  - ASK: to query the KB
- Logics are KRLs where conclusions can be drawn
  - Syntax
  - Semantics
- Entailment: KB |= a iff a is true in all worlds where KB is true
- Inference: KB $|-_i$ a = sentence a can be derived from KB using procedure i
  - Sound: whenever KB $|-_i$ a then KB |= a is true
  - Complete: whenever KB |= a then KB $|-_i$ a

Last Time: Syntax of propositional logic

Propositional logic is the simplest logic—illustrates ba

The proposition symbols P_1, P_2 etc are sentences

If S is a sentence, $\neg S$ is a sentence

If S_1 and S_2 is a sentence, $S_1 \wedge S_2$ is a sentence

If S_1 and S_2 is a sentence, $S_1 \vee S_2$ is a sentence

If S_1 and S_2 is a sentence, $S_1 \Rightarrow S_2$ is a sentence

If S_1 and S_2 is a sentence, $S_1 \Leftrightarrow S_2$ is a sentence