ICS-E4000 Artificial Intelligence

Assignment 3: Logic February 12, 2016

Return the assignment as a PDF file **520137.pdf** (or a text file 520137.txt) with the following content, as well as your solution files **520137*.fma** and **520137*.smt**.

- 1. Name and student number clearly visible: Guo, Ziyi, 520137
- 2. A brief description of your modeling
- 3. Full output from MathSAT with the **-model** option, but without the lines with false.
- 4. Your description of the solutions found by MathSAT.

Deadline: Sunday February 28 at 23:59

Email to: Jussi.Rintanen@aalto.fi

Course Scheduling

Andrew, Emily and Phoebe have to teach a number of courses on a given day, according to a schedule of the following form.

	Andrew	Emily	Phoebe
8am			
9am			
10am			
11am			

The twelve courses are Physics, Math1, Math2, Chemistry1, Chemistry2, AI, Logic, Programming, Finnish, Spanish, Arabic, and Japanese. The schedule has to satisfy the following constraints.

- 1. Only Emily can teach Spanish.
- 2. Only Andrew can teach Math2.
- 3. Only Phoebe can teach AI.
- 4. Only Andrew and Emily can teach Logic.
- 5. Only Andrew and Phoebe can teach the Chemistry courses, Japanese and Finnish.
- 6. Math1 and Math2 cannot be simultaneous.
- 7. Only Phoebe and Emily can teach Arabic.
- 8. Programming and Logic cannot be simultaneous.
- 9. The language courses must be later than 8am.

Goes without saying that each lecturer can only teach one course at a time.