UNIVERSITEIT VAN AMSTERDAM
INSTITUTE FOR LOGIC, LANGUAGE AND COMPUTATION

Core Logic
2005/2006; 1st Semester
dr Benedikt Löwe

Homework Set # 2   *Deadline:* September 20th, 2005

Exercise 4 (12 points).

For each of the following papers written by ILLC members, give
- the full bibliographical data: full first and last name of all authors, full title, journal in which the paper appeared with full title, volume and issue number, page numbers (1 point each),
  [**Example.** Johan van Benthem, Guram Bezhanishvili, Mai Gehrke, Euclidean hierarchy in modal logic. Studia Logica 75 (2003), no. 3, p. 327–344.]
- the first sentence of the paper (for this, you'll have to go to the library or find means to locate electronic versions of these papers; 2 points each).

(1) Aiello / van Benthem / Bezhanishvili, Reasoning about space
(2) Bezhanishvili-Marx, Stud. Log. 2003, p. 367
(3) Troelstra, A. S., A tribute to Dirk van Dalen, APAL 73
(4) van Rooy-Schulz on 'exhaustive interpretation' in JoLLI 2004

Exercise 5 (10 points).

(1) Describe a formal system that allows to express sentences of the type "All B are A", "Some B are A", "No B are A" and "Some B are not A" and their negations such that the square of oppositions gives the rules of derivation (5 points).

(2) Extend the language by expressions for "there are A" and give the appropriate rules. Assume "It is not the case that there is a chimera which is a human being" and derive "There are chimeras" in your system (5 points).