



# Core Logic

2004/2005; 1st Semester  
dr Benedikt Löwe

## Homework Set # 1

Deadline: September 15th, 2004

### Exercise 1.

You received two texts:

- William **Kneale** and Martha **Kneale**, *The Development of Logic*, Oxford 1962; Section XII.5., *The Place of Logic among the Sciences*, p. 737–742.
- Jan **van Eijck**, Ingrid **van Loon** (eds.), *Logic in Action 2000*, An NWO Spinoza Award Project, Leaflet and Report, 2000, Amsterdam 2001; Section 2, *Logic in Action*, p. 12–17.

Read the two texts and summarize the different views of logic in these two texts. Try to answer the following questions in your summary:

- What is the subject matter of logic according to the authors?
- What are the techniques of research in logic according to the authors?
- What parts of logic (as discussed in the lecture) would not be classified as logic in the view described by Kneale & Kneale?

The summary should have between 200 and 350 words. (13 points)

### Exercise 2.

In the lecture, we discussed six ways of classifying sciences: I. according to the ontological character of the subject matter, II. according to the character of the scientific statements, III. according to their epistemology, IV. pragmatic, V. sociological, and VI. historical.

Use (some of) these classification schemes to collect arguments for the following statements (even if you are not convinced that they are true):

- “Mathematics is not a natural science.” (4 points)
- “Applied logic is a natural science.” (4 points)
- “Logic is a social science.” (4 points)