

**Computing and Software 734
Formalized Mathematics**

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McMaster University, Winter 2014**

Exercise 1

10 pts.

Due 11 February 2014

Assigned: 21 January 2014

Revised: 18 January 2014

The 03 Review of First-Order Logic slides include a presentation of the syntax and semantics of FOL (slides 3–8) and a Hilbert-Style proof system for FOL (slides 13–14). The purpose of this exercise is to test how well you understand the presentation of FOL by producing a presentation of many-sorted first-order logic (MS-FOL). Using the presentation of FOL as a model, give (1) the syntax and semantics of MS-FOL and (2) a Hilbert-Style proof system for MS-FOL.