Computing and Software 734
Formalized Mathematics
Fall 2006

Exercise 3

20 pts.

Due 12 October 2006

Assigned: 28 September 2006
Revised: 28 September 2006

Do this exercise by yourself.

Formulate a theory of stacks in STT using the STT theory **PA** as a guide. Leave the objects that are "stacked" unspecified. The language of the theory should have the following constants: is-stack, is-object, bottom (the empty stack), push, pop, and top. The axioms of the theory should include an induction principle for stacks similar to the induction principle of **PA** for natural numbers.