

# Language Based Security

*Summer Semester 2006*

*8. Homework*

*05 July 2006*

## Exercise 1:

Given the set of statements produced for Java stack inspection, give an algorithm which examines them and decides whether a `checkPrivilege(T)` operation should succeed.

## Exercise 2:

Consider the following modified version of the Needham-Schroeder public key protocol where both nonces  $N_a$  and  $N_b$  are sent in the third message.

1.  $A \longrightarrow B : \{A, N_a\}_{K_b}$
2.  $B \longrightarrow A : \{N_a, N_b\}_{K_a}$
3.  $A \longrightarrow B : \{N_a, N_b\}_{K_b}$

What are the security properties of this protocol ?