

# Syntax and Semantics

## Exercise Session 11

### Exercise 1.

Prove the first theorem from Lecture 10 (safety of expressions).

### Exercise 2.

Prove the second theorem from Lecture 10 (safety of statements).

### Exercise 3.

Prove  $E \vdash S : \text{ok}$  in the case when  $E(i) = \text{Int}$  and  $S$  is:

$i := \underline{10}; \text{ while } i > \underline{0} \text{ do } i := i - \underline{1}$