1 Syntax of Commands

type Com = Main:

typedec loc
— an unspecified (arbitrary) type of locations (addresses/names) for variables

types
val = nat — or anything else, nat used in examples
state = loc ⇒ val
aexp = state ⇒ val
bexp = state ⇒ bool
— arithmetic and boolean expressions are not modelled explicitly here,
— they are just functions on states

datatype
com = SKIP (skip)
| Assign loc aexp (_ := _ 60)
| Semi com com (_; _ [60, 60] 10)
| Cond bexp com com (if _ then _ else _ 60)
| While bexp com (while _ do _ 60)

end