

Programming Language Design
10.1, 10.2, 10.3 Due Monday week 3

1.

(a)

No changes are necessary to the concrete or abstract syntax.

(b)

10.4 ...*Void functions may or may not have a Return statement.*

10.5 can be eliminated.

(c)

Meaning rule 10.3 would have to be modified so that it includes both void and non-void functions.

10.2 does not need to be changed.

2.

Violates 10.6: $b = A(a, b) + 1$;

Violates 10.7: $B('c')$; $B(a, b, h)$;

Violates 10.8: $A(a, b) * \text{true}$; $B(2) + 'c'$;

3.

(a) No, because there's nothing syntactically wrong with it, and no type rules against endless loops.

(b) Endless loop.