

1. Program \rightarrow declaration-list

2. declaration-list \rightarrow declaration { declaration }

3. declaration \rightarrow var-declaration | fun-declaration

4. var-declaration \rightarrow type-specifier ID [[NUM]] ;

5. type-specifier \rightarrow int | void

6. fun-declaration \rightarrow type-specifier ID (params) compound-stmt

7. Params \rightarrow param-list | void

8. param-list \rightarrow param { , param }

9. param \rightarrow type-specifier ID [[]]

10. compound-stmt \rightarrow { local-declarations statement-list }

11. local-declarations \rightarrow empty { var-declaration }

12. statement-list \rightarrow empty { statement }

13. statement \rightarrow expression-stmt | compound-stmt | selection-stmt | iteration-stmt | return-stmt

14. expression-stmt \rightarrow [expression] ;

15. selection-stmt \rightarrow if (expression) statement [else statement]

16. iteration-stmt \rightarrow while (expression) statement

17. return-stmt \rightarrow return [expression] ;

18. expression \rightarrow var = expression | simple-expression

19. var \rightarrow ID [[expression]]

20. simple-expression \rightarrow additive-expression | relop additive-expression | additive-expression

21. relop \rightarrow < = | < | > | = | !=

22. additive-expression \rightarrow term { addop term }

23. addop \rightarrow + | -

24. term \rightarrow factor { multop factor }

25. multop \rightarrow * | /

26. factor \rightarrow (expression) | var | call | NUM

27. call \rightarrow ID (args)

28. args \rightarrow arg-list | empty

29. arg-list \rightarrow expression { , expression }