

$\langle \text{program} \rangle \rightarrow \langle \text{function-list} \rangle$
 $\langle \text{function-list} \rangle \rightarrow \langle \text{function-list} \rangle \langle \text{function} \rangle$
 $\langle \text{function-list} \rangle \rightarrow \langle \text{function} \rangle$
 $\langle \text{function} \rangle \rightarrow \text{int } \langle \text{identifier} \rangle (\langle \text{formal-parameter-list} \rangle);$
 $\langle \text{function} \rangle \rightarrow \text{int } \langle \text{identifier} \rangle (\langle \text{formal-parameter-list} \rangle) \langle \text{compound-statement} \rangle$
 $\langle \text{formal-parameter-list} \rangle \rightarrow \langle \text{parameter-list} \rangle$
 $\langle \text{formal-parameter-list} \rangle \rightarrow \epsilon$
 $\langle \text{parameter-list} \rangle \rightarrow \langle \text{parameter-list} \rangle , \langle \text{parameter} \rangle$
 $\langle \text{parameter-list} \rangle \rightarrow \langle \text{parameter} \rangle$
 $\langle \text{parameter} \rangle \rightarrow \text{int } \langle \text{parameter-declarator} \rangle$
 $\langle \text{parameter-declarator} \rangle \rightarrow \langle \text{identifier} \rangle$
 $\langle \text{parameter-declarator} \rangle \rightarrow \langle \text{parameter-declarator} \rangle [\langle \text{number} \rangle]$
 $\langle \text{compound-statement} \rangle \rightarrow \{ \langle \text{declaration-list} \rangle \langle \text{statement-list} \rangle \}$
 $\langle \text{declaration-list} \rangle \rightarrow \langle \text{declaration-list} \rangle \langle \text{variable-declaration} \rangle$
 $\langle \text{declaration-list} \rangle \rightarrow \epsilon$
 $\langle \text{variable-declaration} \rangle \rightarrow \text{int } \langle \text{id-list} \rangle ;$
 $\langle \text{id-list} \rangle \rightarrow \langle \text{id-list} \rangle , \langle \text{parameter-declarator} \rangle$
 $\langle \text{id-list} \rangle \rightarrow \langle \text{parameter-declarator} \rangle$
 $\langle \text{statement-list} \rangle \rightarrow \langle \text{statement-list} \rangle \langle \text{statement} \rangle$
 $\langle \text{statement-list} \rangle \rightarrow \epsilon$
 $\langle \text{statement} \rangle \rightarrow \langle \text{compound-statement} \rangle$
 $\langle \text{statement} \rangle \rightarrow \langle \text{assign-expression} \rangle ;$
 $\langle \text{statement} \rangle \rightarrow \text{if } (\langle \text{assign-expression} \rangle) \langle \text{statement} \rangle \text{ else } \langle \text{statement} \rangle$
 $\langle \text{statement} \rangle \rightarrow \text{while } (\langle \text{assign-expression} \rangle) \langle \text{statement} \rangle$
 $\langle \text{statement} \rangle \rightarrow \text{return } \langle \text{assign-expression} \rangle ;$
 $\langle \text{statement} \rangle \rightarrow \text{read } \langle \text{variable} \rangle ;$
 $\langle \text{statement} \rangle \rightarrow \text{write } \langle \text{assign-expression} \rangle ;$
 $\langle \text{statement} \rangle \rightarrow \text{writeln} ;$
 $\langle \text{assign-expression} \rangle \rightarrow \langle \text{variable} \rangle = \langle \text{assign-expression} \rangle$
 $\langle \text{assign-expression} \rangle \rightarrow \langle \text{logical-expression} \rangle$
 $\langle \text{logical-expression} \rangle \rightarrow ! \langle \text{relational-expression} \rangle$
 $\langle \text{logical-expression} \rangle \rightarrow \langle \text{relational-expression} \rangle$
 $\langle \text{relational-expression} \rangle \rightarrow \langle \text{expression} \rangle == \langle \text{expression} \rangle$
 $\langle \text{relational-expression} \rangle \rightarrow \langle \text{expression} \rangle != \langle \text{expression} \rangle$
 $\langle \text{relational-expression} \rangle \rightarrow \langle \text{expression} \rangle > \langle \text{expression} \rangle$
 $\langle \text{relational-expression} \rangle \rightarrow \langle \text{expression} \rangle < \langle \text{expression} \rangle$
 $\langle \text{relational-expression} \rangle \rightarrow \langle \text{expression} \rangle >= \langle \text{expression} \rangle$
 $\langle \text{relational-expression} \rangle \rightarrow \langle \text{expression} \rangle <= \langle \text{expression} \rangle$
 $\langle \text{relational-expression} \rangle \rightarrow \langle \text{expression} \rangle$
 $\langle \text{expression} \rangle \rightarrow \langle \text{expression} \rangle + \langle \text{term} \rangle$
 $\langle \text{expression} \rangle \rightarrow \langle \text{expression} \rangle - \langle \text{term} \rangle$
 $\langle \text{expression} \rangle \rightarrow \langle \text{term} \rangle$
 $\langle \text{term} \rangle \rightarrow \langle \text{term} \rangle * \langle \text{factor} \rangle$
 $\langle \text{term} \rangle \rightarrow \langle \text{term} \rangle / \langle \text{factor} \rangle$
 $\langle \text{term} \rangle \rightarrow \langle \text{factor} \rangle$
 $\langle \text{factor} \rangle \rightarrow \langle \text{variable} \rangle$
 $\langle \text{variable} \rangle \rightarrow \langle \text{identifier} \rangle$
 $\langle \text{variable} \rangle \rightarrow \langle \text{variable} \rangle [\langle \text{assign-expression} \rangle]$
 $\langle \text{factor} \rangle \rightarrow \langle \text{identifier} \rangle (\langle \text{expression-list} \rangle)$
 $\langle \text{expression-list} \rangle \rightarrow \langle \text{argument-list} \rangle$
 $\langle \text{expression-list} \rangle \rightarrow \epsilon$
 $\langle \text{argument-list} \rangle \rightarrow \langle \text{argument-list} \rangle , \langle \text{assign-expression} \rangle$
 $\langle \text{argument-list} \rangle \rightarrow \langle \text{assign-expression} \rangle$
 $\langle \text{factor} \rangle \rightarrow \langle \text{number} \rangle$
 $\langle \text{factor} \rangle \rightarrow (\langle \text{assign-expression} \rangle)$