

PROGRAM ::= DEFINITION-LIST

DEFINITION-LIST ::= ε
| DEFINITION DEFINITION-LIST

DEFINITION ::= "fn" IDENTIFIER "(" PARAMETER-LIST ")" "->" TYPE
BODY

PARAMETER-LIST ::= ε
| FORMAL-PARAMETERS

FORMAL-PARAMETERS ::= ID-WITH-TYPE
| ID-WITH-TYPE "," FORMAL-PARAMETERS

ID-WITH-TYPE ::= IDENTIFIER ":" TYPE

TYPE ::= "integer"
| "boolean"

BODY ::= PRINT-EXPRESSION BODY
| EXPRESSION

PRINT-EXPRESSION ::= "print" "(" EXPRESSION ")"

EXPRESSION ::= SIMPLE-EXPRESSION
| SIMPLE-EXPRESSION "==" EXPRESSION
| SIMPLE-EXPRESSION "<" EXPRESSION

SIMPLE-EXPRESSION ::= TERM
| TERM "or" SIMPLE-EXPRESSION
| TERM "+" SIMPLE-EXPRESSION
| TERM "-" SIMPLE-EXPRESSION

TERM ::= FACTOR
| FACTOR "and" TERM
| FACTOR "*" TERM
| FACTOR "/" TERM

FACTOR ::= LITERAL
| "not" FACTOR
| "-" FACTOR
| IDENTIFIER
| IDENTIFIER "(" ARGUMENT-LIST ")"
| "if" "(" EXPRESSION ")" EXPRESSION "else" EXPRESSION
| "(" EXPRESSION ")"

ARGUMENT-LIST ::= ϵ
| FORMAL-ARGUMENTS

FORMAL-ARGUMENTS ::= EXPRESSION
| EXPRESSION "," FORMAL-ARGUMENTS

LITERAL ::= BOOLEAN-LITERAL
| INTEGER-LITERAL