**Syntax**

program\_entry = statement\_list;

a. Declaration

declaration\_statement := "@let" IDENTIFIER | declaration\_list

declaration\_list := IDENTIFIER | IDENTIFIER "," declaration\_list

b. Statement

statement\_list := statement | statement "\n" statement\_list

statement := ["\t] simple\_statement | struct\_statement

simple\_statement := assignment\_statement | io\_statement

struct\_statement := compound\_statement | conditional\_statement | iterate\_statement | while\_statement

compound\_statement := "\t" statement\_list

c. Assignment

assignment\_statement := IDENTIFIER "=" expression

d. Expression

expression\_statement := expression\_statement ("+" | "-") term | term

term := term ("\*" | "/") factor | factor

factor := "(" expression\_statement ")" | IDENTIFIER

e. I/O

io\_statement := "@enter" | "<-" | "@print" | "->"

f. Conditional statement

conditional\_statement := "@check" "(" condition ")" statement ["@otherwise" statement]

condition := expression\_statement RELATION expression\_statement

RELATION = "==" | "is" | "!=" | "is not" | "<" | "<=" | ">" | ">="

g. Iterate statement

iterate\_statement := "@iterate" "(" IDENTIFIER "," CONSTANT "," expression\_statement "," "step=" CONSTANT ")" "\n" statement

h. While statement

while\_statement := "@while" "(" condition ")" compound\_statement