

```

1  block = statement ";"
2
3  statement = compoundStatement | declarationStatement | assignmentStatement |
IOstatement | ifStatement | loopStatement
4  compoundStatement = statement ";" statement
5
6  declarationStatement = "let" type identifier
7  type = ("int" | "bool" | "string") | type "[" integer "]"
8
9  assignmentStatement = identifier "=" expression
10 expression = listExpression | expression ("+" | "-" | "or") term | term
11 listExpression = "{" "}" | "{" expression {"," expression} "}"
12 term = term ("*" | "/" | "and") factor | factor
13 factor = "(" expression ")" | identifier | constant
14 constant = integer | boolean | string
15
16 IOstatement = readStatement | writeStatement
17 readStatement = "read" "(" identifier ")"
18 writeStatement = "write" "(" expression ")"
19
20 ifStatement = "if" "(" expression ")" "then" "{" block "}" ["else" "{" block "}"]
21
22 loopStatement = whileStatement | forStatement
23 forStatement = "for" "(" assignmentStatement ";" expression ";" assignmentStatement ")"
"do" "{" block "}"
24 whileStatement = "while" "(" expression ")" "do" "{" block "}"
25
26 integer = "0" | ["+" | "-"] nonzero {digit}
27 boolean = "true" | "false"
28 string = "" {letter | digit | "_"} ""
29
30 identifier = letter {letter | digit | "_"}
31 letter = "A" | "B" | ... | "Z" | "a" | "b" | ... | "z"
32 digit = "0" | nonzero
33 nonzero = "1" | "2" | ... | "9"

```