

```

1  TYPES -> int | float | double | long | boolean
2  OP -> + | + - | / | * | =
3  -----
4  digit -> [0-9]
5  digits -> digit +
6  Optional Fraction -> .digits | $
7  number -> digits | digits Optional Fraction | 0xdigits | 0bdigits
8  -----
9  letter -> [a-z A-z _]
10 id -> letter (letter | digit)*
11 -----
12 ws -> (blank | tab | new line)
13 punc -> ( | ) { | } | [ | ] | , | ;
14 arr -> id[digits]
15 id -> arr
16 -----
17 IF -> if (expr) {stmt} | if (expr) {stmt} else {stmt} | $
18 expr -> term relop term | term
19 term -> id | number | value
20 relop -> < | > | <= | >= | == | < | > | !=
21 -----
22 dec -> type id (Ep | = number | =false | = true | [digits] | = operation)
23 operation -> id = value
24 value -> id (op id)* | number | true | false
25 -----
26 FOR -> for(typegfttr id;expr;operation){stmt}
27 WHILE -> (expr){stmt}
28 func -> (type|void) id ((type id)*){stmt (return (value | id) | Ep)}
29 -----
30 keyword -> {int , float, double , long , boolean , if , while , for , else , return ,
31 void }
32 identifier
33 punctuation {(,),{,},[,],;,.,}
34 number [0-9]
35 operator {+,-,*,/,=}

```