

## Context Free Grammar

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1.  $STMT \rightarrow \epsilon$
2.  $STMT \rightarrow \text{int\_keyw identifier} = \text{EXPR}; STMT$
3.  $STMT \rightarrow \text{float\_keyw identifier} = \text{EXPR}; STMT$
4.  $STMT \rightarrow \text{identifier FACTORS TERMS COMPARES EQUALS ASSIGNS}; STMT$
5.  $STMT \rightarrow \text{int FACTORS TERMS COMPARES EQUALS ASSIGNS}; STMT$
6.  $STMT \rightarrow \text{float FACTORS TERMS COMPARES EQUALS ASSIGNS}; STMT$
7.  $STMT \rightarrow (\text{EXPR}) \text{ FACTORS TERMS COMPARES EQUALS ASSIGNS}; STMT$
8.  $STMT \rightarrow \text{if\_keyw} (\text{EXPR}) \text{ BLOCK ELSE } STMT$
9.  $STMT \rightarrow \text{for\_keyw} (\text{PRE EXPR}; \text{EXPR}) \text{ BLOCK } STMT$
10.  $STMT \rightarrow \text{while\_keyw} (\text{EXPR}) \text{ BLOCK } STMT$
11.  $BLOCK \rightarrow \{ STMT \}$
12.  $ELSE \rightarrow \text{else\_keyw BLOCK}$
13.  $ELSE \rightarrow \epsilon$
14.  $PRE \rightarrow \text{int\_keyw identifier} = \text{EXPR};$
15.  $PRE \rightarrow \text{float\_keyw identifier} = \text{EXPR};$
16.  $PRE \rightarrow \text{identifier} = \text{EXPR};$
17.  $INC\_OP \rightarrow ++$
18.  $INC\_OP \rightarrow --$
19.  $INC \rightarrow \text{identifier INC\_OP}$
20.  $EXPR \rightarrow \text{identifier FACTORS TERMS COMPARES EQUALS ASSIGNS}$
21.  $EXPR \rightarrow \text{int FACTORS TERMS COMPARES EQUALS ASSIGNS}$
22.  $EXPR \rightarrow \text{float FACTORS TERMS COMPARES EQUALS ASSIGNS}$
23.  $EXPR \rightarrow (\text{EXPR}) \text{ FACTORS TERMS COMPARES EQUALS ASSIGNS}$
24.  $ASSIGNS \rightarrow = \text{ASSIGN ASSIGNS}$
25.  $ASSIGNS \rightarrow \epsilon$
26.  $ASSIGN \rightarrow \text{identifier FACTORS TERMS COMPARES EQUALS}$
27.  $EQUALS \rightarrow == \text{EQUAL EQUALS}$
28.  $EQUALS \rightarrow != \text{EQUAL EQUALS}$
29.  $EQUALS \rightarrow \epsilon$
30.  $EQUAL \rightarrow \text{identifier FACTORS TERMS COMPARES}$
31.  $EQUAL \rightarrow \text{int FACTORS TERMS COMPARES}$
32.  $EQUAL \rightarrow \text{float FACTORS TERMS COMPARES}$
33.  $EQUAL \rightarrow (\text{EXPR}) \text{ FACTORS TERMS COMPARES}$
34.  $COMPARES \rightarrow < \text{COMPARE COMPARES}$
35.  $COMPARES \rightarrow > \text{COMPARE COMPARES}$

- 36. COMPARES  $\square \leq$  COMPARE COMPARES
- 37. COMPARES  $\square \geq$  COMPARE COMPARES
- 38. COMPARES  $\square \epsilon$
- 39. COMPARE  $\square$  identifier FACTORS TERMS
- 40. COMPARE  $\square$  int FACTORS TERMS
- 41. COMPARE  $\square$  float FACTORS TERMS
- 42. COMPARE  $\square$  (EXPR) FACTORS TERMS
- 43. TERMS  $\square +$  TERM TERMS
- 44. TERMS  $\square -$  TERM TERMS
- 45. TERMS  $\square \epsilon$
- 46. TERM  $\square$  identifier FACTORS
- 47. TERM  $\square$  int FACTORS
- 48. TERM  $\square$  float FACTORS
- 49. TERM  $\square$  (EXPR) FACTORS
- 50. FACTORS  $\square *$  FACTOR FACTORS
- 51. FACTORS  $\square /$  FACTOR FACTORS
- 52. FACTORS  $\square \epsilon$
- 53. FACTOR  $\square$  identifier
- 54. FACTOR  $\square$  int
- 55. FACTOR  $\square$  float
- 56. FACTOR  $\square$  (EXPR)
- 57. FACTOR  $\square$  -VALUE
- 58. VALUE  $\square$  identifier
- 59. VALUE  $\square$  int
- 60. VALUE  $\square$  float
- 61. VALUE  $\square$  (EXPR)