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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| \ | T\_Bool | T\_Break | T\_Char | T\_Continue | T\_Else | T\_False | T\_For | T\_If | T\_Int | T\_Print | T\_Return | T\_True | T\_AOp\_PL | T\_AOp\_MN | T\_AOp\_ML | T\_AOp\_DV | T\_AOp\_RM | T\_ROp\_S | T\_ROp\_G | T\_ROp\_SE | T\_ROp\_GE | T\_ROp\_NE | T\_ROp\_E | T\_LOp\_AND | T\_Lop\_OR | T\_LOp\_NOT | T\_Assign | T\_LP | T\_RP | T\_LB | T\_RB | T\_LSB | T\_RSB | T\_Semicolon | T\_Comma | T\_Id | T\_Decimal | T\_Hexadecimal | T\_String | T\_Character | T\_Comment | $ |
| START | START 🡪 FUNC FUNCS |  | START 🡪 FUNC FUNCS |  |  |  |  |  | START 🡪 FUNC FUNCS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| FUNCS | FUNCS 🡪 FUNC FUNCS |  | FUNCS 🡪 FUNC FUNCS |  |  |  |  |  | FUNCS 🡪 FUNC FUNCS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | FUNCS 🡪 FUNC FUNCS |
| EXP | EXP 🡪 DEF EXP; | EXP 🡪 T\_BREAK;EXP; | EXP 🡪 DEF EXP; | EXP 🡪 T\_CONTINUE;EXP; |  |  | EXP 🡪 FOR EXP; | EXP 🡪 IF EXP; | EXP 🡪 DEF EXP; | EXP 🡪 T\_PRINT;EXP; | EXP 🡪T\_RETURN EXP1;EXP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | EXP 🡪 ɛ |  |  | EXP 🡪 ɛ |  | EXP 🡪 T\_ID = EXP1; |  |  |  |  | EXP 🡪 T\_COMMENT | EXP 🡪 ɛ |
| DEF | DEF 🡪 TYPE VAR ARRAY |  | DEF 🡪 TYPE VAR ARRAY |  |  |  |  |  | DEF 🡪 TYPE VAR ARRAY |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| TYPE | TYPE 🡪 T\_BOOL |  | TYPE 🡪 T\_CHAR |  |  |  |  |  | TYPE 🡪 T\_INT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| VAR |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | VAR 🡪 T\_ID | T\_ID = EXP1 |  |  |  |  |  |  |
| ARRAY | ARRAY 🡪 ɛ | ARRAY 🡪 ɛ | ARRAY 🡪 ɛ | ARRAY 🡪 ɛ |  |  | ARRAY 🡪 ɛ | ARRAY 🡪 ɛ | ARRAY 🡪 ɛ | ARRAY 🡪 ɛ | ARRAY 🡪 ɛ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ARRAY 🡪 ɛ | ARRAY 🡪 rules |  | ARRAY 🡪 ɛ |  | ARRAY 🡪 ɛ |  |  |  |  | ARRAY 🡪 ɛ |  |
| FUNC | FUNC 🡪 rules |  | FUNC 🡪 rules |  |  |  |  |  | FUNC 🡪 rules |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PARAMS | PARAMS 🡪 T\_BOOL T\_ID,PARAMS |  | PARAMS 🡪 T\_CHAR T\_ID,PARAMS |  |  |  |  |  | PARAMS 🡪 T\_INT T\_ID,PARAMS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | PARAMS 🡪 ɛ |  |  |  |  |  |  |  |  |  |  |  |  | PARAMS 🡪 ɛ |
| PARAM  PARAM | LASTPARAMS 🡪 T\_BOOL T\_ID |  | LASTPARAMS 🡪 T\_CHAR T\_ID |  |  |  |  |  | LASTPARAMS 🡪 T\_INT T\_ID |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MORE\_PARAM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | MORE\_PARAM 🡪 ɛ |  |  |  |  |  | MORE\_PARAM 🡪 , PARAM PARAMS |  |  |  |  |  |  | MORE\_PARAM 🡪 ɛ |
| FOR |  |  |  |  |  |  | FOR 🡪 T\_FOR (DEF\_FOR){EXP} |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DEF\_FOR  FOR | DEF\_FOR 🡪 TYPE VAR;RELEXP;EXP1 |  | DEF\_FOR 🡪 TYPE VAR;RELEXP;EXP1 |  |  |  |  |  | DEF\_FOR 🡪 TYPE VAR;RELEXP;EXP1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EXP1 |  |  |  |  |  | EXP1 🡪 rules |  |  |  |  |  | EXP1 🡪 rules |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | EXP1 🡪 rules |  |  |  |  |  |  |  | EXP1 🡪 rules | EXP1 🡪 rules | EXP1 🡪 rules | EXP1 🡪 rules | EXP1 🡪 rules |  |  |
| TERM |  |  |  |  |  | TERM 🡪 rules |  |  |  |  |  | TERM 🡪 rules |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | TERM 🡪 rules |  |  |  |  |  |  |  | TERM 🡪 rules | TERM 🡪 rules | TERM 🡪 rules | TERM 🡪 rules | TERM 🡪 rules |  |  |
| OPERAND |  |  |  |  |  | OPERAND 🡪 rules |  |  |  |  |  | OPERAND 🡪 rules |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | OPERNAD 🡪 (EXP1) |  |  |  |  |  |  |  | OPERAND 🡪 T\_ID ++ | T\_ID -- | OPERNAD 🡪 T\_DEC | OPERNAD 🡪 T\_HEX | OPERAND 🡪 T\_STRING | OPERAND 🡪 rules |  |  |
| CALL\_FUNC |  |  |  |  |  |  |  |  |  |  |  |  | CALL\_FUNC 🡪 rules | CALL\_FUNC 🡪 rules | CALL\_FUNC 🡪 rules | CALL\_FUNC 🡪 rules |  |  |  |  |  |  |  |  |  |  |  | CALL\_FUNC 🡪 rules | CALL\_FUNC 🡪 rules |  |  |  |  |  | CALL\_FUNC 🡪 rules |  |  |  |  |  |  | CALL\_FUNC 🡪 ɛ |
| CALL\_PARAMS |  |  |  |  |  | CALL\_PARAMS 🡪 rules |  |  |  |  |  | CALL\_PARAMS 🡪 rules |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CALL\_PARAMS 🡪 rules | CALL\_PARAMS 🡪 ɛ |  |  |  |  |  | CALL\_PARAMS 🡪 rules | CALL\_PARAMS 🡪 rules | CALL\_PARAMS 🡪 rules | CALL\_PARAMS 🡪 rules | CALL\_PARAMS 🡪 rules | CALL\_PARAMS 🡪 rules |  | CALL\_PARAMS 🡪 ɛ |
| CALL\_PARAM |  |  |  |  |  | CALL\_PARAM 🡪 rules |  |  |  |  |  | CALL\_PARAM 🡪 rules |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CALL\_PARAM 🡪 rules |  |  |  |  |  |  |  | CALL\_PARAM 🡪 rules | CALL\_PARAM 🡪 rules | CALL\_PARAM 🡪 rules | CALL\_PARAM 🡪 rules | CALL\_PARAM 🡪 rules |  |  |
| CALL\_MORE\_PARAMS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | CALL\_MORE\_PARAMS 🡪 ɛ |  |  |  |  |  | CALL\_MORE\_PARAMS 🡪rules |  |  |  |  |  |  | CALL\_MORE\_PARAMS 🡪 ɛ |
| IF |  |  |  |  |  |  |  | IF 🡪 rules |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RELEXP |  |  |  |  |  | RELEXP 🡪 rules |  |  |  |  |  | RELEXP 🡪 rules |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | RELEXP 🡪 rules |  |  |  |  |  |  |  | RELEXP 🡪 rules | RELEXP 🡪 rules | RELEXP 🡪 rules | RELEXP 🡪 rules | RELEXP 🡪 rules |  |  |
| RELOP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | RELOP 🡪 ROP\_NE | RELOP 🡪 ROP\_E | RELOP 🡪 rules | RELOP 🡪 rules |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ELSE | ELSE 🡪 ɛ | ELSE 🡪 ɛ | ELSE 🡪 ɛ | ELSE 🡪 ɛ | ELSE 🡪 T\_ELSE{EXP} |  | ELSE 🡪 ɛ | ELSE 🡪 ɛ | ELSE 🡪 ɛ | ELSE 🡪 ɛ | ELSE 🡪 ɛ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | ELSE 🡪 ɛ |  | ELSE 🡪 ɛ | ELSE 🡪 ɛ |  |  | ELSE 🡪 ɛ |  | ELSE 🡪 ɛ |  |  |  |  | ELSE 🡪 ɛ | ELSE 🡪 ɛ |
| PRINT |  |  |  |  |  |  |  |  |  | PRINT 🡪 T\_PRINT (T\_STRING,PARAMS\_PRINT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| PRINT\_PARAMS  PARAMS |  |  |  |  |  | PRINT\_PARAMS 🡪 rules |  |  |  |  |  | PRINT\_PARAMS 🡪 rules |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | PARAMS\_PRINT 🡪 EXP1 |  |  |  |  |  |  |  | PARAMS\_PRINT 🡪 T\_ID,PARAMS\_PRINT | PARAMS\_PRINT 🡪 EXP1 | PARAMS\_PRINT 🡪 EXP1 | PARAMS\_PRINT 🡪 EXP1 | PRINT\_PARAMS 🡪 rules |  |  |