|  |  |  |  |
| --- | --- | --- | --- |
| Grammer | Semantic property | inherited | synthesized |
| PROGRAM -> **program** VAR\_DEFINITIONS; STATEMENTS **end** FUNC\_DEFINITIONS |  |  |  |
| VAR\_DEFINITIONS -> VAR\_DEFINITION VAR\_DEFINITIONS\_t | VAR\_DEFINITIONS .num\_of\_var |  | X |
| VAR\_DEFINITIONS\_t -> ;VAR\_DEFINITIONS | ɛ | VAR\_DEFINITIONS\_t .num\_of\_var |  | X |
| VAR\_DEFINITION - > TYPE VARIABLES\_LIST | VARIABLES\_LIST. type  VARIABLES\_LIST. action  VAR\_DEFINITION.num\_of\_var | X  X | X |
| TYPE -> **real** | **integer** | Type.type |  | X |
| VARIABLES\_LIST - > VARIABLE VARIABLES\_LIST\_t | VARIABLE . type  VARIABLE . action  VARIABLES\_LIST\_t . type  VARIABLES\_LIST\_t . action  VARIABLE\_LIST.num\_of\_var | X  X  X  X | X |
| VARIABLES\_LIST\_t -> ,VARIABLE VARIABLES\_LIST\_t(1) | ɛ | VARIABLES\_LIST\_t . num\_of\_var  VARIABLE .type  VARIABLE .action  VARIABLES\_LIST\_t(1) .type  VARIABLES\_LIST\_t(1) .action | X  X  X  X | X |
| VARIABLE -> id VARIABLE\_t | VARIABLE.type  VARIABLE.action | X  X |  |
| VARIABLE\_t -> ɛ | [int\_number] | VARIABLE\_t . size |  | X |
| FUNC\_DEFINITIONS -> FUNC\_DEFINITION FUNC\_DEFINITIONS\_t |  |  |  |
| FUNC\_DEFINITIONS\_t -> FUNC\_DEFINITION FUNC\_DEFINITIONS\_t | ɛ |  |  |  |
| FUNC\_DEFINITION -> RETURNED\_TYPE id (PARAM\_DEFINITIONS) BLOCK | BLOCK.type\_needed  BLOCK.type | X | X |
| RETURNED\_TYPE -> **void** | TYPE | RETURNED\_TYPE . type |  | X |
| PARAM\_DEFINITIONS -> ɛ | VAR\_DEFINITIONS | PARAM\_DEFINITIONS .num\_of\_var |  | X |
| STATEMENTS -> STATEMENT; STATEMENTS\_t  STATEMENTS | STATEMENT.type\_needed  STATEMENTS\_t.type\_needed  STATEMENTS.type  STATEMENT.type  STATEMENTS\_t.type | X  X | X  X  X |
| STATEMENTS\_t -> ɛ | STATEMENTS | STATEMENTS\_t . type  STATEMENTS .type\_needed | X | X |
| STATEMENT -> **return** STATEMENT\_t | id STATEMENT\_t2 | BLOCK | STATEMENT . type  BLOCK.type\_needed  BLOCK.type  STATEMENT\_t2.entry | X  X | X  X |
| STATEMENT\_t -> ɛ |EXPRESSION | STATEMENT\_t . type  EXPRESSION.type |  | X  X |
| STATEMENT\_t2 -> VARIABLE\_t = EXPRESSION| (PARAMETERS\_LIST) | VARIABLE\_t .size  EXPRESSION.type  PARAMETERS\_LIST.num\_of\_var  STATEMENT\_t2.entry | X | X  X  X |
| BLOCK -> { VAR\_DEFINITIONS; STATEMENTS } | BLOCK . type\_needed  STATEMENTS.type\_needed  BLOCK . type  STATEMENTS.type | X  X | X  X |
| PARAMETERS\_LIST -> ɛ | VARIABLES\_LIST | PARAMETERS\_LIST .num\_of\_var  VARIABLES\_LIST.action  VARIABLES\_LIST.num\_of\_var | X | X  X |
| EXPRESSION -> id EXPRESSION\_t | int\_number | real\_number | EXPRESSION.type  EXPRESSION\_t.entry | X | X |
| EXPRESSION\_t -> VARIABLE\_t |ar\_op EXPRESSION | Expression\_t.type  VARIABLE\_t.size  EXPRESSION.type |  | X  X  X |

סיכום:

בתכונות בטבלה שרשמנו קיימים שמות של תכונות אשר חוזרים על עצמם , לשם הנוכחות וההבנה באיזה חוקים מתעדכנות התכונות.