

Main_Program ::= Main_Program'' Main_Program' ✓

Main_Program' ::= Main_Program Main_Program' | ε ✓

Main_Program'' ::= Declaration | Assignment | City ✓

Declaration ::= **const** Declaration' | Declaration' ✓

Declaration' ::= Type **variable equals** Expression ✓

Assignment ::= **variable equals** Expression ✓

Type ::= **type_number** | **type_string** | **type_coordinate** | **type_list** lthen Type mthen ✓

Expression ::= Additive ✓

Additive ::= Multiplicative Additive' ✓

Additive' ::= **plus** Multiplicative Additive' | **minus** Multiplicative Additive' | ε ✓

Multiplicative ::= Exponential Multiplicative' ✓

Multiplicative' ::= **times** Exponential Multiplicative' | **divide** Exponential Multiplicative' | **integer-divide** Exponential Multiplicative' | ε ✓

Exponential ::= Unary Exponential' ✓

Exponential' ::= **pow** Unary Exponential' | ε ✓

Unary ::= **plus** Primary | **minus** Primary | Primary ✓

Primary ::= **real** | **variable** | **lbracket** Additive **rbracket** | **lsq_bracket** Inner_List **rsq_bracket** ✓

Inner_List ::= Inner_List'' Inner_List' ✓

Inner_List' ::= **comma** Inner_List'' Inner_List | ε ✓

Inner_List'' ::= Expression ✓

City ::= **city variable block_start** City' **block_end** ✓

City' ::= City''' City'' ✓

City'' ::= City' City'' | ε ✓

City''' ::= City_Constructs | Declaration | Assignment | Print ✓

Print ::= **print lbracket** Expression **rbracket** ✓

City_Constructs ::= Restaurant | Road ✓

Restaurant ::= Name Shape Marker Routes ✓

Name ::= **name colon** String ✓

String ::= **variable** | **string** ✓

Shape ::= **shape colon block_start** Lines **block_end** ✓

Lines ::= Line Line Line Line' ✓

Line' ::= Line Line' | ϵ ✓

Line ::= **line lsq_bracket** Coord **comma** Coord **rsq_bracket** ✓

Coord ::= **variable** | **lbracket** Expression **comma** Expression **rbracket** ✓

Marker ::= Marker' | ϵ ✓

Marker' ::= **marker colon** Point ✓

Point ::= **point lsq_bracket** Coord **rsq_bracket** ✓

Routes ::= Routes' | ϵ ✓

Routes' ::= **routes colon lsq_bracket** Roads **rsq_bracket** ✓

Roads ::= Road Road' ✓

Road' ::= **comma** Road Roads' | ϵ ✓

Road ::= **road variable block_start** Name Road_Shapes **block_end** ✓

Road_Shapes ::= **shape colon block_start** Road_Shapes' Road_Shapes **block_end** ✓

Road_Shapes' ::= Road_Shape Road_Shapes' | ϵ ✓

Road_Shape ::= Line | Bend ✓

Bend ::= **bend** **lsq_bracket** Coord **comma** Coord **comma** Expression **rsq_bracket** ✓

For ::= **foreach variable in** Variable **block_start** Program **block_end** ✓

Variable ::= **variable** | Radius ✓

Radius ::= **lsq_bracket** Coord **comma** Expression **rsq_bracket** ✓

Program ::= Program" Program' ✓

Program ' ::= Program Program' | ε ✓

Program " ::= Declaration | Assignment | Print | Highlight ✓

Highlight ::= **highlight lbracket variable rbracket** ✓ pazi da je variable coord!

Netermini

const -> const
variable -> {A,...,Z,a,...,z}{A,...,Z,a,...,z,0,...,9}*
equals -> =
type_number -> num
type_string -> string
type_coordinate -> coord
type_list -> List
lthen -> <
mthen -> >
city -> city
block_start -> {
block_end -> }
name -> name
colon -> :
string -> "{A,...,Z,a,...,z,0,...,9}*" oz. ASCII
shape -> shape
line -> line
lsq_bracket -> [
comma -> ,
rsq_bracket ->]
lbracket -> (
rbracket ->)
marker -> marker
point -> point
routes -> routes
road -> road
bend -> bend
foreach -> foreach
highlight -> highlight