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Let E be an expression defining the subtrees of a tree
using x to denote nodes, and (and) to denote the beginning and ending of subtrees.

G is a grammar for generating such expressions.
$G = (V_N, V_T , S, P)$
where
$V_N = \{ S, A, B,C \}$
$V_T = \{ x, (,) \}$
x is any character that is not (or)
λ is the empty string
$P = \{S \rightarrow x \mid x(xA), A \rightarrow \lambda \mid xA \mid (B)C, \ C \rightarrow \lambda \mid x \mid xA, B \rightarrow x \mid xA \}$

L(G)={E : E is a valid tree-defining expression}

We check the correctness of the tree-defining expressions by checking that the following conditions hold

i. E[i] is in {x,(,)}
ii. E[1]=x
iii. Number of (= Number of)
iv.)(is not in E
v. () is not in E
vi. ((is not in E