CS3311 Chapter 4 handout
Algorithm for constructing the TERM set

Algorithm 4.4.2
Construction of the set of variables that derive terminal strings

input: context-free grammar $G = (V, \Sigma, P, S)$
private: PREV : the set from the previous iteration

1. TERM := $\{A \mid$ there is a rule $A \rightarrow w \in P$ with $w \in \Sigma^*\}$
2. **repeat**
    2.1 PREV := TERM
    2.2 **for** each variable $A \in V$ **do**
        if there is an A rule $A \rightarrow w$ and $w \in (\text{ PREV } \cup \Sigma)^*$ **then**
            TERM := TERM U $\{$A$\}$

until PREV = TERM

return TERM