Rules for Generating First and Follow Sets

A. For each rule of the form
   a. \( <nt_i> \rightarrow T_k \ldots \)
   b. \( T_k \) is included in the first set of \( <nt_i> \)

B. For each rule of the form
   a. \( <nt_i> \rightarrow <nt_j> \ldots \)
   b. if \( T_k \) is a member of the first set of \( <nt_j> \) then \( T_k \) is included in the first set of \( <nt_i> \)

C. For each rule of the form
   a. \( <nt_i> \rightarrow \lambda \)
   b. if \( T_k \) is a member of the follow set of \( <nt_i> \) then \( T_k \) is included in the first set of \( <nt_i> \)

D. For each rule of the form
   a. \( \rightarrow \ldots <nt_i> T_k \ldots \)
   b. \( T_k \) is included in the follow set of \( <nt_i> \)

E. For each rule of the form
   a. \( \rightarrow \ldots <nt_i> <nt_j> \ldots \)
   b. if \( T_k \) is a member of the first set of \( <nt_j> \) then \( T_k \) is included in the follow set of \( <nt_i> \)

F. For each rule of the form
   a. \( <nt_i> \rightarrow \ldots <nt_j> \)
   b. if \( T_k \) is a member of the follow set of \( <nt_i> \) then \( T_k \) is included in the follow set of \( <nt_j> \)

\[ P = \{ \]

1. \( <program> \rightarrow \textbf{begin} <stmt_list> \textbf{end} \)
2. \( <stmt_list> \rightarrow <stmt> <stmt_tail> \)
3. \( <stmt_tail> \rightarrow ; <stmt_list> \)
4. \( <stmt_tail> \rightarrow \lambda \)
5. \( <stmt> \rightarrow <var> = <expression> \)
6. \( <var> \rightarrow A \)
7. \( <var> \rightarrow B \)
8. \( <var> \rightarrow C \)
9. \( <expression> \rightarrow <var><expr_tail> \)
10. \( <expr_tail> \rightarrow + <var><expr_tail> \)
11. \( <expr_tail> \rightarrow * <var><expr_tail> \)
12. \( <expr_tail> \rightarrow \lambda \)