Consider the following grammar:

\[
\begin{align*}
S &\rightarrow X \$
X &\rightarrow X^* E \\
&\mid E ; X \\
&\mid E \\
E &\rightarrow n
\end{align*}
\]

Draw the LR(0) Canonical Collection (the DFA) for this grammar. Label all of the states which states of your DFA would trigger a “reduce” action, and if there are any states that would result in “shift/reduce errors” or “reduce/reduce errors” indicate those as well.
CS 160: Practice Sheet 3: Solution