Problem 1 – LR(1) Parsing

1. Compute the canonical collection of sets of LR(1) items
2. Construct the LR(1) parse table (ACTION and GOTO)
3. Is the grammar LR(1) or not? Justify your answer.
4. If the grammar is LR(1), show the behavior of the LR(1) parser on input
   \( *\text{id} = \text{id} \), i.e., show stack content, current input, and selected action
   for each move of the machine.

Problem 2 – LR(0) / SLR(1) Grammars

Show that the above grammar (Problem 1) is not LR(0). Note that it is sufficient to show one state where there is a conflict (Hint: you don’t need to enumerate all states).

Is the grammar SLR(1)? Justify your answer.