Fill in the Action and Goto tables for an LALR parser for the grammar given below, where the start symbol is $E$. “∧” is the power operator, i.e., $x \land y$ means $x^y$. Although the grammar is ambiguous, your parser must not be ambiguous: an ambiguous string must be parsed according to the precedence of operators defined for Python. The power operator is right-associative and binds more tightly than unary operators on its left and less tightly than unary operators on its right. Thus $a \land a \land a$ means $a \land (a \land a)$, $-a \land a$ means $-(a \land a)$, and $a \land -a$ means $a \land (-a)$. Note: $a$ represents any variable name.

1. $E \rightarrow E + E$
2. $E \rightarrow E - E$
3. $E \rightarrow E * E$
4. $E \rightarrow - E$
5. $E \rightarrow E \land E$
6. $E \rightarrow (E)$
7. $E \rightarrow id$