Question 2

Part a:
- Some students used ‘x’, ‘y’, and ‘z’ instead of Sym when modifying the data definition.
- Some students used Identifier instead of Sym without writing a data definition for an Identifier.

Part b
- Many students forgot to write a second, mutual template for OpNode (as there are two data definitions, AExp and OpNode, which are mutual).
- Many students forgot to write a contract for OpNode (most likely if you forgot to write an opnode-template). Some students who did write an opnode-template contract had an incorrect contract based on how they wrote their opnode-template.
  - For instance, if opnode-template consumed one argument (such as an OpNode), then the contract should consume one argument. For opnode-template that consumes two arguments (such as the operator and arguments of an OpNode), your contract should have 2 consumed data types.
- Some students assumed the application based on the question in a conditional statement.
  - For instance, some students checked specifically for the symbol of the operator (which is fine), but you cannot assume that you must use the functions + or * as an application.
- Many students had incorrect base case answers. Specifically, the base cases should only contain a set of ellipses, not necessarily the argument.
- Some students neglected that if AExp is a symbol, it does not only need to be ‘x’, ‘y’, or ‘z’ (it can be other symbols). On the other hand, the operator of an OpNode can only be ‘+’ or ‘∗’, not any symbol.
- Although no marks were deducted, it is the best practice to name your template X-template if you are writing a template based on the data definition for X. Specifically, using the name opnode-template is the most appropriate name for a template that consumes an OpNode.

Part c
- Many students used Symbol Table as a data type in their contracts (commonly named SymTable, AL, SymbolTable), but neglected to write a data definition for it.
- Many students wrote (listof Sym Num) for the elements inside the Symbol Table, but the symbol-number pairs should have been represented using (list Sym Num).
- Some students incorrectly assumed that the Symbol Table can only have ‘x’, ‘y’, ‘z’ for symbols.