F) Overall, I tried to minimize the number of states and utilize transitions properly to enforce the FSTA rules whenever possible. States were added to the FSA whenever I realized there was no way to percolate information up into the tree (for example, I needed a Wh state to signify that somewhere in the tree, there was a wh-word present). To make sure wh-words were forced to be c-commanded by a Q and that every Q c-commanded a wh-word, I first only allowed the exit state to be Null. Once a non-terminal node accepted two child nodes with Q and Wh states respectively (fulfilling part of the aforementioned c-command requirements), I set the FSTA state to Null. To enforce the c-command requirements, I also made it so that I removed all transitions involving Q children except ([Q, Wh] or vice versa, "*", Null) transitions. Since Q isn't a state in F(q), that transition forces Q to c-command any wh-words in the tree because the Q state isn't allowed to percolate up the tree via the transitions. If I look at the rules, there isn't anything I see that necessarily would disallow the transition ([Q, Q], "*", Q), but linguistically, this wouldn't make sense and the code as-is passed the test cases given in the homework. As such, I hope that's fine.

Enforcing the leaf node rules was pretty easy, since I just created transitions with no children, the relevant word, and relevant target state. Enforcing the non-terminal node "*" rule was accomplished by making sure every non-terminal node had two children.

G) Honestly, this part was pretty simple. Since the children of adjunct "**" nodes are already defined as above, all I needed to do was add a few more transitions to account for "**" nodes. The ([Null, Null], "**", Null) transition accounts for any cases in which c-command requirements for wh-words and Q complementizers have already been fulfilled. Otherwise, the only transitions that needed to be added were for transitions with one Wh and one Q child node each, with symbol "**" and exit state Null. Again, because "**" is only used for adjunct nodes, fulfilling the c-command requirements is already accomplished by the transitions I made for (F).