1 Week 2

1. Because the transition from starting state & into final states have different symbols
2. Because the figure II, we have same symbols from starting state & into final state.
3. We convert NFA to DFA using subset construction. Power set of n elements has 2^n cardinality.
4. ababaaab can not be made using elements of L.
5. Because transition table of option C matches the given table.
6. Because only way to reach final state is by reading 00.
7. The given transition table matches that of the given NFA, so true.
8. DFA accepts aba, but NFA does not.
9. True, as that is the correct definition of δ_D for subset constrction.
10. bababab ends in final state, so it is accepted.
11. All DFA by definition are NFA.
12. Both NFA and DFA are equivalent.
13. You require at least three states to make $(0 + 1)^*(10)$
14. NFA is non-deterministic, hence it computes multiple paths simultaneously.
15. After reading 1000110 you don't reach final state.