1. Use the RE to NFA algorithm to create NFAs that accept the languages specified by the following regular expressions. Follow the algorithm. Do not simplify the NFA.

a. \((01) \mid 1\)

b. \((0^*) \mid (1^*)\)

2. Use the NFA to DFA subset algorithm to build a DFA for the NFA shown on the following page. In the DFA leave the state names as the subsets of states from the NFA.
NFA for Problem 2