Homework 1 Answer

1.6 (b)

1.6 (d)

1.6 (m)

- Note that there is no final state in the diagram or the final states are not reachable from the initial state.
1.9 (b)

1.13
We follow the suggestion given in the textbook.
Step 1: Design an NFA to accept $\overline{F}$, the complement of F.

Step 2: Convert the NFA to a DFA accepting $\overline{F}$.

Note that there is no final state in the diagram or the final states are not reachable from the initial state.
Step 3: The three find states can be merged as one. The language accepted remains the same.

Step 4: Convert the DFA to a DFA accepting F.