1. Write out the transition table for the following FA. State 2 is the final state.

2. Write out a transition table for a FA that accepts the language of all words with exactly 3 b's over the alphabet $\{\mathrm{a}, \mathrm{b}\}$.
3. Draw a transition diagram for an FA that accepts the lnaguage of all words over the alphabet $\{\mathrm{a}, \mathrm{b}\}$ that begin with 'aa' and end with 'bb' or that begin with 'bb' and end with 'aa'.
4. Do problem 18 in Chapter 5 of the textbook.
