Avi Hirsch
Design and Analysis of Algorithms
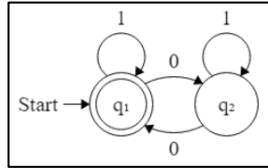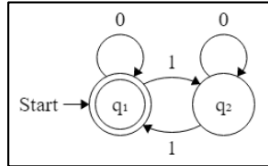Homework: DFA Construction
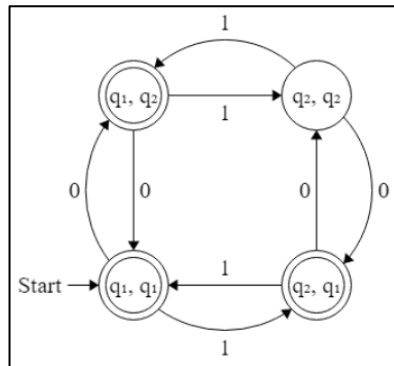
1. **Regular Languages Closed Under Union (Construction Example)**

   1. **Draw the FA M_1 that accepts L_1.**

   2. **Draw the FA M_2 that accepts L_2.**

   3. **Draw the FA M that accepts the union of the L_1 and L_2 FAs.**

2. **NFA to DFA Construction**
   (a) **What language does this NFA recognize?**
   The NFA recognizes the language $L = \{w \in \{0,1\}^* \mid w$ ends with a 1 $\}$

   (b) **Construct a DFA that simulates this NFA.**