0. NFAs 1
(a) Construct an NFA for the language "all binary strings ending in either 011 or 110".

(b) Construct an equivalent DFA for the same language.
1. NFAs

(a) Construct an NFA for the language "all strings from the alphabet \( \Sigma = \{0, 1, 2\} \) containing only 0's and 1's, and at most one 1".
For instance, the strings 0000, 0010, 1000, 0, 1, and \( \epsilon \) should be accepted. The strings 0101, 2, 000020, 102000, 011, should be rejected.

(b) Construct an NFA for the language "all binary strings that have a 1 as one of the last three digits".
2. DFA to NFA, DFA Minimization

Let $L$ be the language where the alphabet is $\Sigma = \{0, 1, 3, 9\}$ such that $w \in L$ iff. the string "311" is a substring of $w$.

(a) Give an NFA to accept strings in $L$.

(b) Give an equivalent DFA for your NFA (using the algorithm from 311).
(c) Is your DFA minimized? If not, give the minimized DFA using the algorithm from 311.