

# Automata and Formal Languages

## Quiz 1

姓名：

學號：

1. Find DFA for  $L = \{w : |w| \bmod 3 = 0\}$  on  $\Sigma = \{0, 1\}$ .
2. Show that if  $L$  is a nonempty language such that any  $w$  in  $L$  has length at least  $n$ , then any DFA recognizing  $L$  must have at least  $n + 1$  states.
3. Convert the following NFA into DFA with  $\Sigma = \{a, b\}$ .

