

Assignment 4

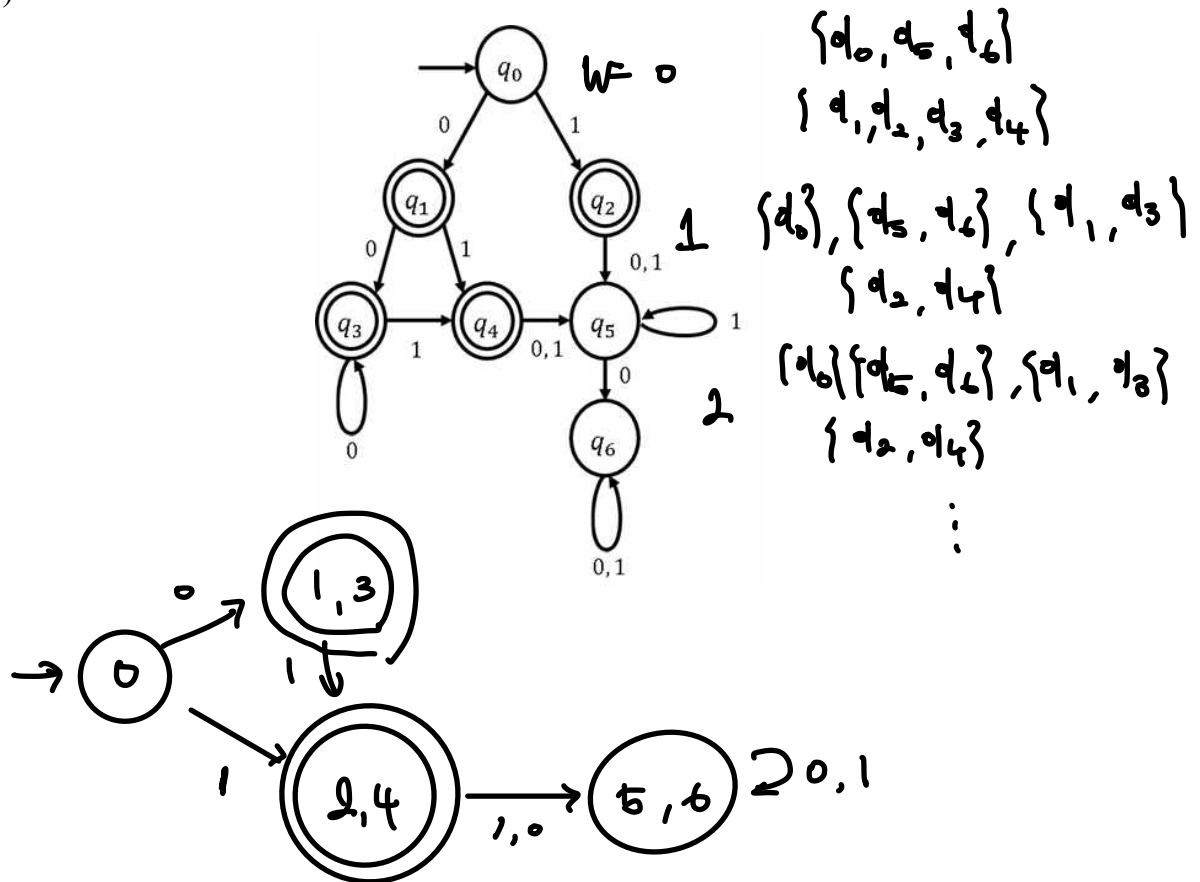
Automata & Theory of Computation

Student ID: 2023065350

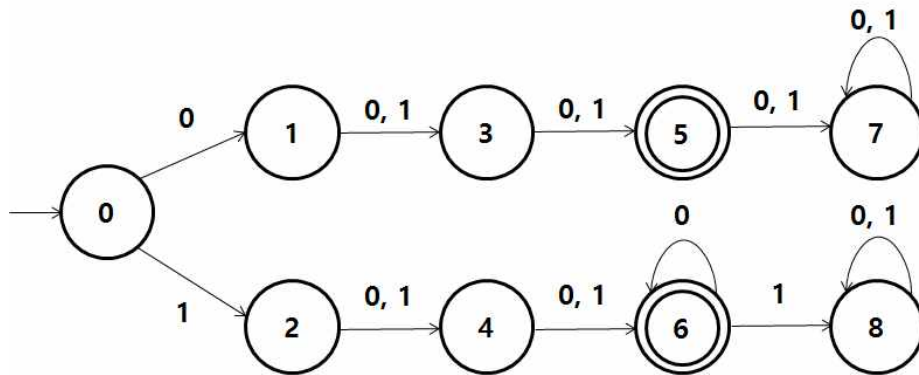
Name: 2157

1. Partition the following dfa's state set into indistinguishable state sets, and reduce the following dfa to the minimal dfa.

(1)



(2)



$w=0$ $\{0, 1, 2, 3, 4, 7, 8\}, \{5, 6\}$

$w=1$ $\{0, 1, 2, 7, 8\}, \{3, 4\}, \{5\}, \{6\}$

$w=2$ $\{0, 7, 8\}, \{1, 2\}, \{3\}, \{4\}, \{5\}, \{6\}$

$w=3$ $\{7, 8\}, \{0\}, \{1\}, \{2\}, \{3\}, \{4\}, \{5\}, \{6\}$

$w=4$ $\{7, 8\}, \{0\}, \{1\}, \{2\}, \{3\}, \{4\}, \{5\}, \{6\}$

\vdots

