

Theory of Computation, CSCI 438 spring 2022
Finite automaton, pg. 31-40, Jan. 12

Exercise 1.6 a, b, e, h, j, k, m & n (page 84)

1.6 Alphabet $\Sigma = \{0, 1\}$. Create DFA's for the following:

a. $\{w \mid w \text{ begins with a } 1 \text{ and ends with a } 0\}$

b. $\{w \mid w \text{ contains at least three } 1\text{s}\}$

e. $\{w \mid w \text{ starts with } 0 \text{ and has odd length, or starts with } 1 \text{ and has even length}\}$

h. $\{w \mid w \text{ is any string except } 11 \text{ and } 111\}$

j. $\{w \mid w \text{ contains at least two 0s and at most one 1}\}$

k. $\{\epsilon, 0\}$

m. The empty set

n. All strings except the empty string