CIT 596 Homework 1

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1 Exercise 1.4

1.1 Part e

Create a DFA that accepts the language $\{\omega \mid \omega$ starts with an a and has at most one b$\}$.

1.2 Part f

1.3 Part g

2 Exercise 1.5

2.1 Part c

2.2 Part e

2.3 Part f

3 Exercise 1.6

3.1 Part c

3.2 Part e

3.3 Part g

3.4 Part i

3.5 Part j

4

5

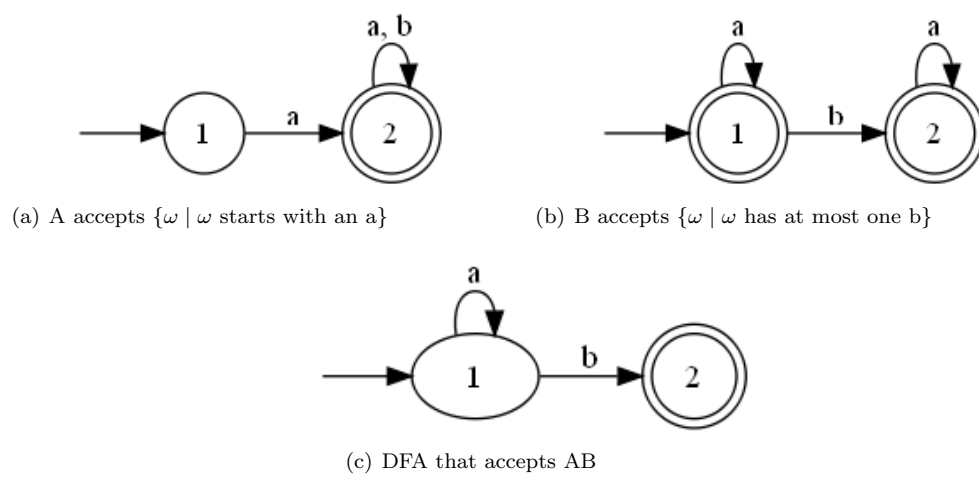(a) A accepts {ω | ω starts with an a}

(b) B accepts {ω | ω has at most one b}

(c) DFA that accepts AB

Figure 1: DFA for Exercise 1.4e