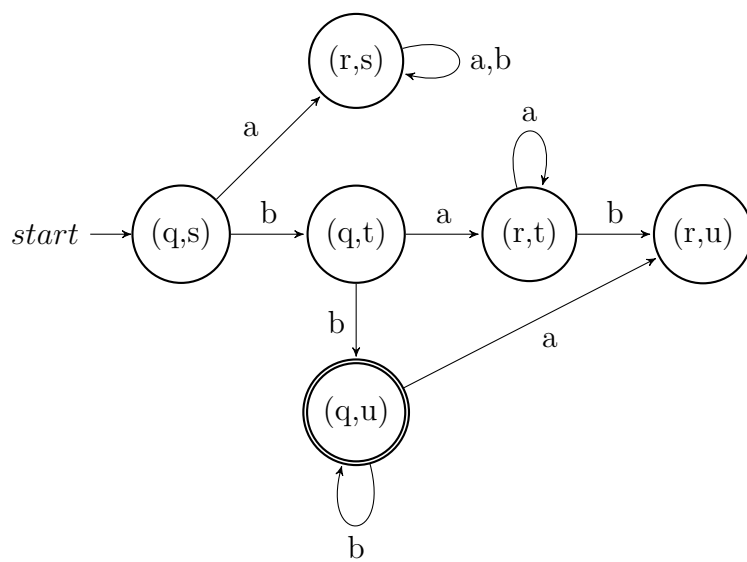
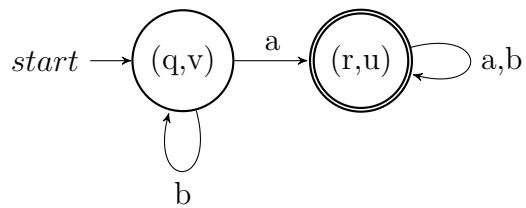


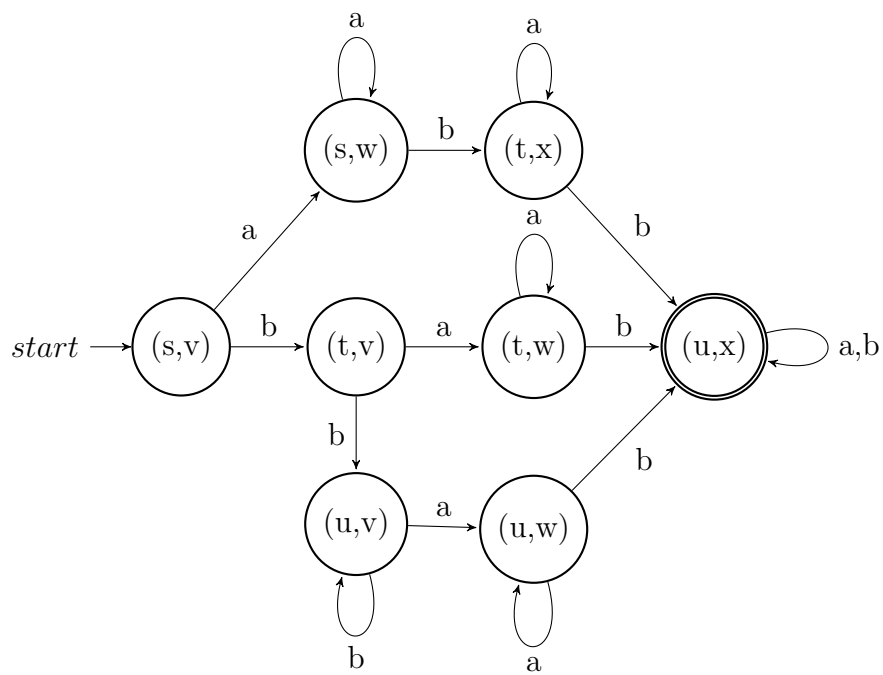
1. (a)



(b)



(c)



(d)

2. See attached C++ file.

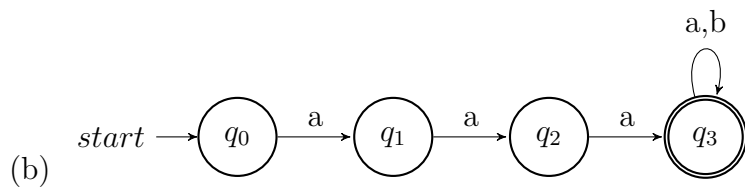
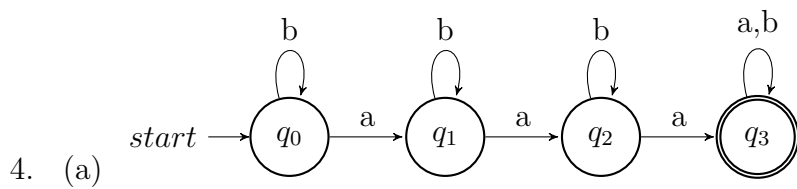
3. (a) yes

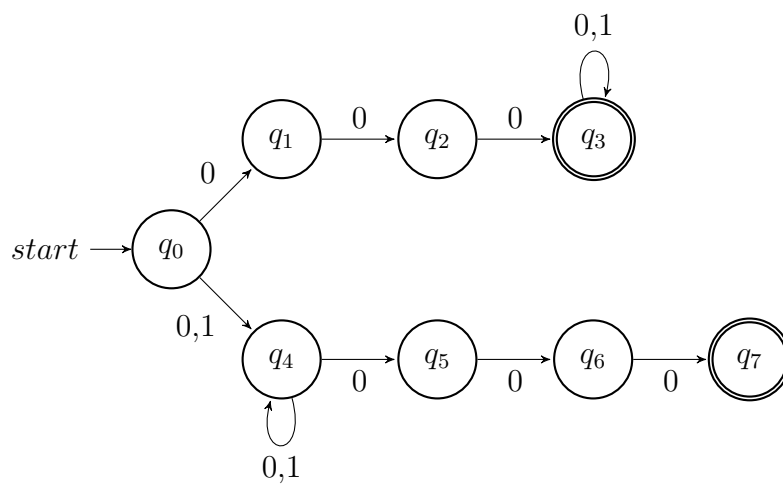
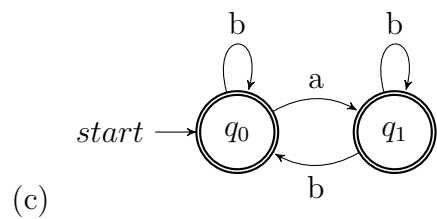
(b) yes

(c) yes

(d) no

(e) yes





- (a)  $\{q_0, q_2\}$   
(b)  $\{\epsilon\}$   
(c)  $\{\epsilon\}$   
(d)  $\{q_0, q_1\}$   
(e)  $\{q_0, q_1, q_2\}$