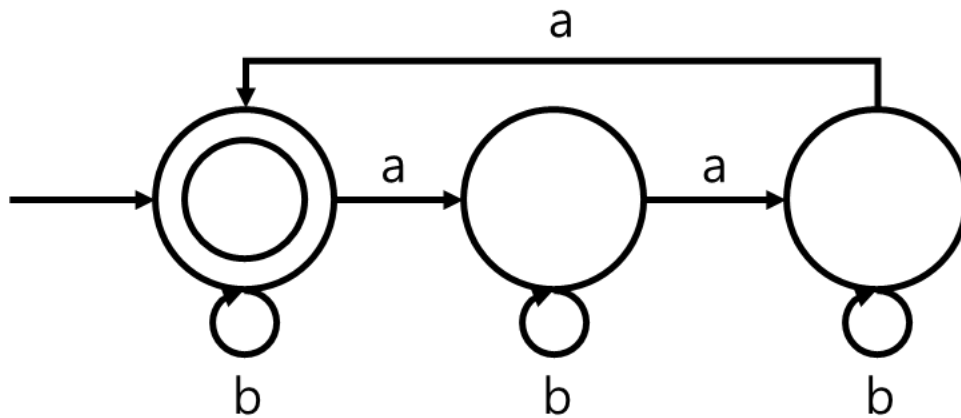
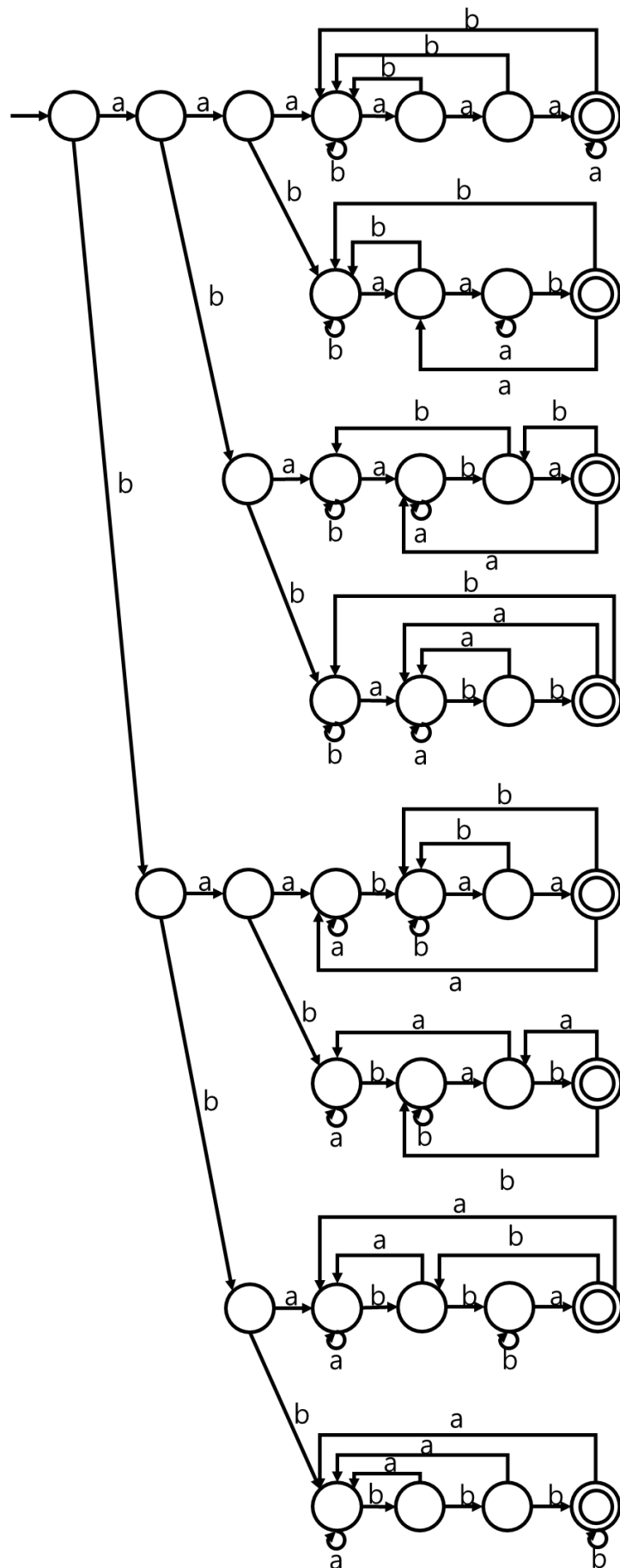


Assignment 2

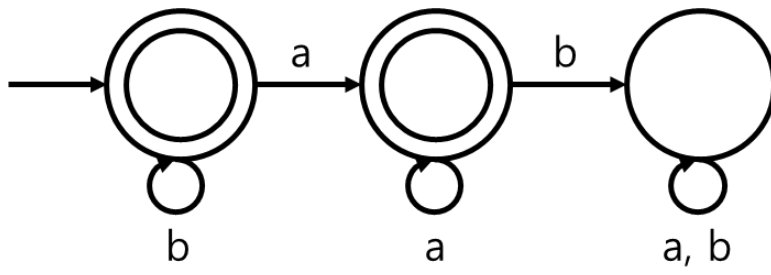
1. $S_1 \cap \overline{S_2} = S_1 - S_2$
 $S_1 \cup S_2 - (S_1 - S_2) = (S_1 \cup S_2 - S_1) \cup S_2 = (S_2 - S_1) \cup S_2 = S_2$
- 2.



3. Since given Language has DFA below, it is regular.



4.



5.

	a	b
\emptyset	\emptyset	\emptyset
q0	q0, q1, q2	\emptyset
q1	\emptyset	q2
q2	q2	\emptyset
q0, q1	q0, q1, q2	q2
q0, q2	q0, q1, q2	\emptyset
q1, q2	q2	q2
q0, q1, q2	q0, q1, q2	q2

