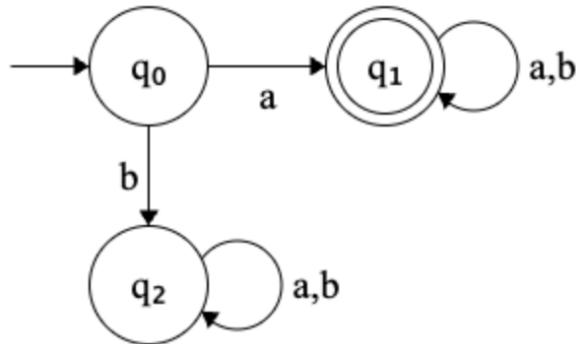
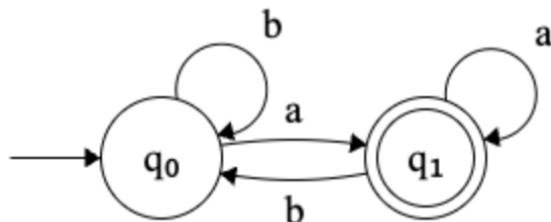


Chapter 1.1 Practice Key

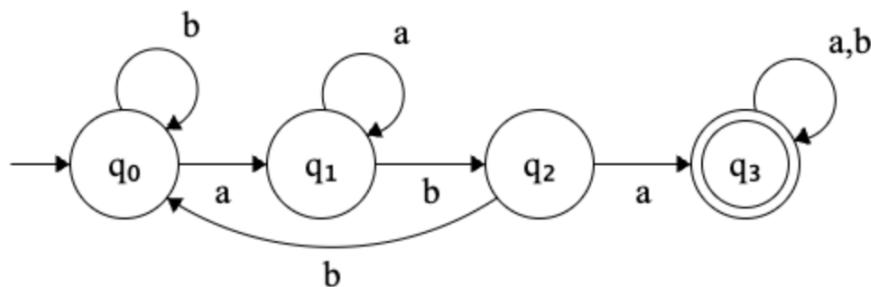
1. Give the state diagram for a DFA with $\Sigma = \{a, b\}$ that accepts precisely the strings that start with an a.



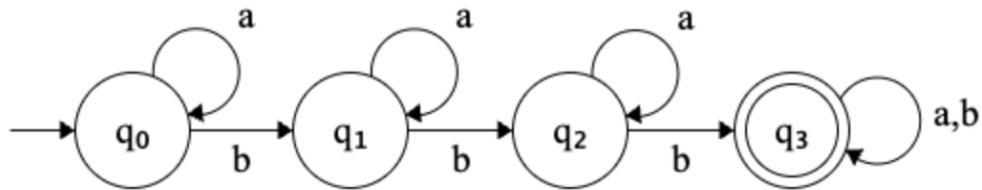
2. Give the state diagram for a DFA with $\Sigma = \{a, b\}$ that accepts precisely the strings that end with an a.



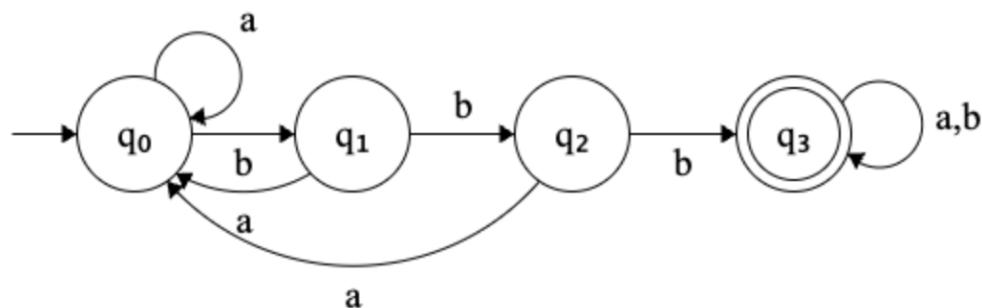
3. Give the state diagram for a DFA with $\Sigma = \{a, b\}$ that accepts precisely the strings that contain an aba.



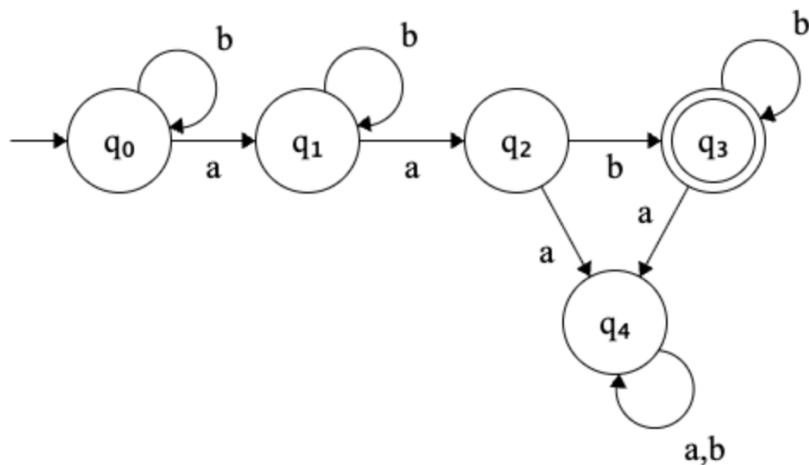
4. Give the state diagram for a DFA with $\Sigma = \{a, b\}$ that accepts precisely the strings that contain at least 3 b's.



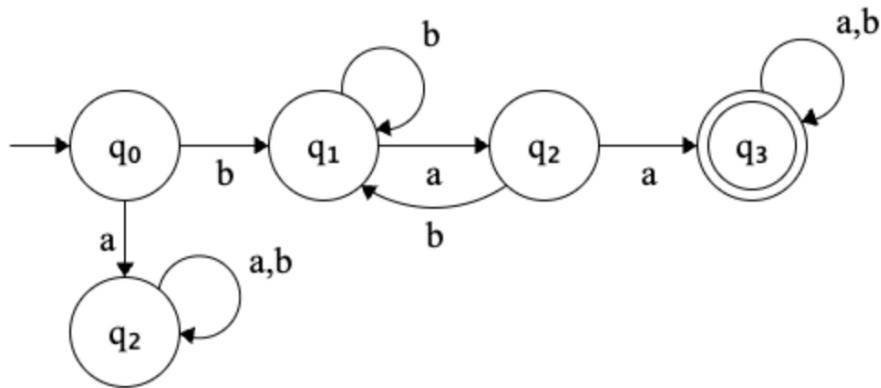
5. Give the state diagram for a DFA with $\Sigma = \{a, b\}$ that accepts precisely the strings that contain a string of 3 b's.



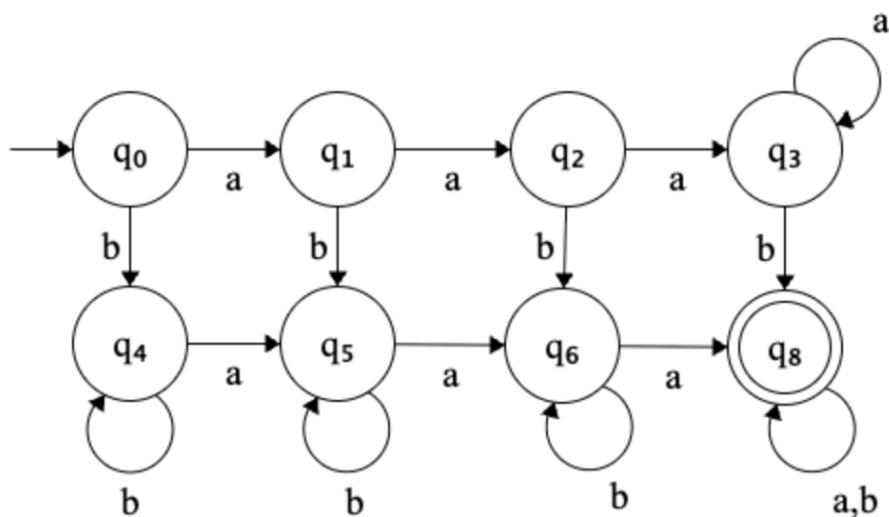
6. Give the state diagram for a DFA with $\Sigma = \{a, b\}$ that accepts precisely the strings that contain exactly two a's and ends with a b.



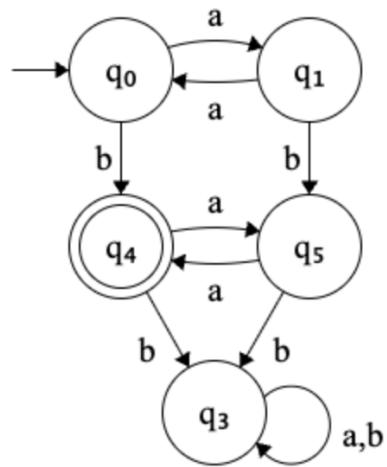
7. Give the state diagram for a DFA with $\Sigma = \{a, b\}$ that accepts precisely the strings that starts with b and contains the string aa.



8. Give the state diagram for a DFA with $\Sigma = \{a, b\}$ that accepts precisely the strings that contain at least 1 b and at least 3 a's.



9. Give the state diagram for a DFA with $\Sigma = \{a, b\}$ that accepts precisely the strings that contain an even number of a's and exactly one b.



10. Give the state diagram for a DFA with $\Sigma = \{a, b\}$ that accepts precisely the strings that contain at least 2 a's and at least 3 b's.

