P45 习题2.3.7

a)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 状态/操作 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 🡪qs | {qs,q0} | {qs,q1} | {qs,q2} | {qs,q3} | {qs,q4} | {qs,q5} | {qs,q6} | {qs,q7} | {qs,q8} | {qs,q9} |
| q0 | {qf} | {q1} | {q2} | {q3} | {q4} | {q5} | {q6} | {q7} | {q8} | {q9} |
| q1 | {q0} | {qf} | {q2} | {q3} | {q4} | {q5} | {q6} | {q7} | {q8} | {q9} |
| q2 | {q0} | {q1} | {qf} | {q3} | {q4} | {q5} | {q6} | {q7} | {q8} | {q9} |
| q3 | {q0} | {q1} | {q2} | {qf} | {q4} | {q5} | {q6} | {q7} | {q8} | {q9} |
| q4 | {q0} | {q1} | {q2} | {q3} | {qf} | {q5} | {q6} | {q7} | {q8} | {q9} |
| q5 | {q0} | {q1} | {q2} | {q3} | {q4} | {qf} | {q6} | {q7} | {q8} | {q9} |
| q6 | {q0} | {q1} | {q2} | {q3} | {q4} | {q5} | {qf} | {q7} | {q8} | {q9} |
| q7 | {q0} | {q1} | {q2} | {q3} | {q4} | {q5} | {q6} | {qf} | {q8} | {q9} |
| q8 | {q0} | {q1} | {q2} | {q3} | {q4} | {q5} | {q6} | {q7} | {qf} | {q9} |
| q9 | {q0} | {q1} | {q2} | {q3} | {q4} | {q5} | {q6} | {q7} | {q8} | {qf} |
| \*qf | {} | {} | {} | {} | {} | {} | {} | {} | {} | {} |

c)

|  |  |  |
| --- | --- | --- |
| 状态/操作 | 0 | 1 |
| 🡪qs | {q0} | {qs} |
| q0 | {qf} | {q1} |
| q1 | {q2,q0} | {q2} |
| q2 | {q3,q0} | {q3} |
| q3 | {q4,q0} | {q4} |
| q4 | {qf} | {q1} |
| \*qf | {qf} | {qf} |

P49 习题2.4.2

a)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 状态/字符 | a | b | c | d |
| 🡪{q0} | {q1} | {q0} | {q0} | {q0} |
| {q1} | {q5} | {q2} |  |  |
| {q2} |  |  | {q3} | {q4} |
| \*{q3} |  |  |  |  |
| \*{q4} |  |  |  |  |
| {q5} |  |  | {q6} |  |
| {q6} |  |  |  | {q7} |
| \*{q7} |  |  |  |  |

b)

|  |  |  |
| --- | --- | --- |
| 状态/字符 | 0 | 1 |
| 🡪{q0} | {q1} | {q6} |
| {q1} |  | {q2} |
| {q2} | {q3} | {q5} |
| {q3} |  | {q4} |
| \*{q4} |  |  |
| \*{q5} |  |  |
| {q6} | {q7} |  |
| {q7} |  | {q8} |
| \*{q8} |  |  |

c)

|  |  |  |  |
| --- | --- | --- | --- |
| 状态/字符 | a | b | c |
| 🡪{q0} | {q1} | {q3} | {q5} |
| {q1} |  | {q2} |  |
| \*{q2} |  |  |  |
| {q3} |  |  | {q4} |
| \*{q4} |  |  |  |
| {q5} | {q6} |  |  |
| \*{q6} |  |  |  |

P54 习题2.5.1

a)

p:{p}

q:{p,q}

r:{r,q,p}

b)

length=1:c

length=2:ac

bb bc

ca cb cc

length=3:aac

abb abc

aca acb acc

bac bab

bba bbb bbc

bca bcb bcc

caa cab cac

cba cbb cbc

cca ccb ccc

c)

|  |  |  |  |
| --- | --- | --- | --- |
| 状态/字符 | a | b | c |
| 🡪{p} | {p} | {p,q} | {p,q,r} |
| {p,q} | {p,q} | {p,q,r} | {p,q,r} |
| \*{p,q,r} | {p,q,r} | {p,q,r} | {p,q,r} |

P55 习题2.5.3

a)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 状态/符号 |  | a | b | c |
| 🡪q0 | q1,q2,q3 |  |  |  |
| \*q1 |  | q1 | q2 | q3 |
| \*q2 |  |  | q2 | q3 |
| \*q3 |  |  |  | q3 |