



北京邮电大学数学作业纸

(科目: 形式语言)

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10.1) $M = (\{q_0, q_1, q_2, q_3\}, \{a, b\}, \delta, q_0, \{q_3\})$

$\delta(q_0, a) = q_0$ $\delta(q_0, b) = q_1$ $\delta(q_1, a) = q_0$ $\delta(q_1, b) = q_2$

$\delta(q_2, a) = q_0$ $\delta(q_2, b) = q_3$ $\delta(q_3, a) = q_3$ $\delta(q_3, b) = q_3$

2) $M = (\{q_0, q_1, q_2\}, \{a, b\}, \delta, q_0, \{q_2\})$

$\delta(q_0, a) = q_1$ $\delta(q_0, b) = \emptyset$ $\delta(q_1, a) = q_2$ $\delta(q_1, b) = \emptyset$

$\delta(q_2, a) = q_2$ $\delta(q_2, b) = q_2$

3) $M = (\{q_0, q_1, q_2\}, \{a, b\}, \delta, q_0, \{q_2\})$

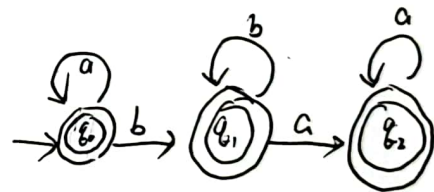
$\delta(q_0, a) = q_1$ $\delta(q_0, b) = q_0$ $\delta(q_1, a) = q_2$ $\delta(q_1, b) = q_0$

$\delta(q_2, a) = q_2$ $\delta(q_2, b) = q_0$

4) $M = (\{q_0, q_1, q_2\}, \{a, b\}, \delta, q_0, \{q_0, q_1, q_2\})$

$\delta(q_0, a) = q_0$ $\delta(q_1, a) = q_2$ $\delta(q_2, a) = q_2$

$\delta(q_0, b) = q_1$ $\delta(q_1, b) = q_1$ $\delta(q_2, b) = \emptyset$



14.1) $M_1 = (\emptyset, \{a, b\}, \delta, [\emptyset], \{[\emptyset, q_1, q_2], [q_0, q_2, q_3], [q_0, q_1, q_2, q_3], [q_0, q_3]\})$

	a	b
$\rightarrow [\emptyset]$	$[\emptyset, q_1]$	$[\emptyset]$
$[\emptyset, q_1]$	$[\emptyset, q_1, q_2]$	$[\emptyset, q_2]$
$[\emptyset, q_1, q_2]$	$[\emptyset, q_1, q_2, q_3]$	$[\emptyset, q_2]$
$[\emptyset, q_2]$	$[\emptyset, q_1, q_2]$	$[\emptyset]$
$* [\emptyset, q_1, q_2, q_3]$	$[\emptyset, q_1, q_2, q_3]$	$[\emptyset, q_1, q_2, q_3]$
$* [\emptyset, q_2, q_3]$	$[\emptyset, q_1, q_2, q_3]$	$[\emptyset, q_2, q_3]$
$* [\emptyset, q_1, q_3]$	$[\emptyset, q_1, q_2]$	$[\emptyset, q_2]$
$* [\emptyset, q_3]$	$[\emptyset, q_1, q_2]$	$[\emptyset, q_2]$

其中 $Q_1 = \{[\emptyset], [\emptyset, q_1], [\emptyset, q_1, q_2], [\emptyset, q_2], [\emptyset, q_1, q_2, q_3], [\emptyset, q_2, q_3], [\emptyset, q_1, q_3], [\emptyset, q_3]\}$

(2) $M_1 = \{Q_1, (a, b), \delta, [b_0], \{[q_1], [q_2], [q_1, q_2], [q_0, q_1, q_2], [q_1, q_2], [q_1, q_2, q_3], [q_2, q_3]\}\}$

Let $Q_1 = \{[b_0], [q_1, q_2], [q_1], [q_2], [q_0, q_1, q_2], [q_2], [q_1, q_2], [q_1, q_2, q_3], [q_2, q_3]\}$

	a	b
$\rightarrow [b_0]$	$[q_1, q_2]$	$[q_1]$
$* [q_1, q_2]$	$[q_2]$	$[q_0, q_1, q_2]$
$* [q_1]$	$[q_2]$	$[q_1, q_2]$
$[q_2]$	$[q_2]$	$[q_0]$
$* [q_0, q_1, q_2]$	$[q_1, q_1, q_2]$	$[q_0, q_1, q_2]$
$* [q_1, q_2]$	$[q_2, q_2]$	$[q_0, q_1, q_2]$
$* [q_2]$	\emptyset	$[q_0]$
$* [q_1, q_2, q_3]$	$[q_2, q_2]$	$[q_0, q_1, q_2]$
$* [q_2, q_2]$	$[q_2]$	$[q_0]$