FGI2 Übungen Blatt 3

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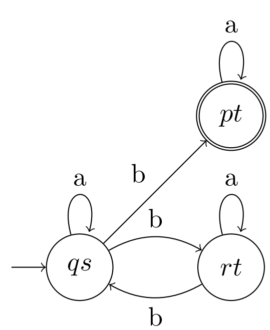
3.3

3.3.1

$L(A_1) = (a^* + (ba^*b)) + ((a^* + (ba^*b))^*ba^*)$
$L(A_2) = (a^*ba^*(ba^*b)^*a^*)$
$L^\omega(A_1) = (a + ba^*b)^*(ba^\omega) + (a + ba^*b)^\omega$
$L^\omega(A_2) = a^*b(a^* + (ba^*b))^\omega$

3.3.2

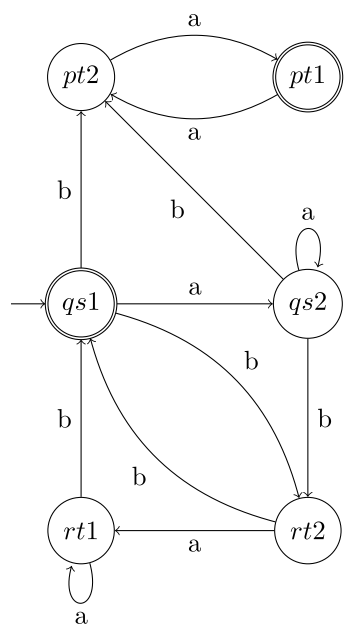


3.3.3

$L(A_3) = (a^* + ba^*b)^*ba^* = L(A_1) \cap L(A_2)$

$L^\omega(A_3) = (a^* + ba^*b)^*ba^\omega \neq (a^*ba^*b)^\omega + (a^* + ba^*b)^*ba^\omega = L^\omega(A_1) \cap L^\omega(A_2)$

3.3.4



3.3.5

$L(A_4) = (a^*ba^*b) + (a^* + ba^*b)^*ba + \epsilon \neq (a^* + ba^*b)^*ba^* = L(A_1) \cap L(A_2)$

$L^\omega(A_4) = (a^*ba^*b)^\omega + (a^* + ba^*b)^*ba^\omega = L^\omega(A_1) \cap L^\omega(A_2)$

3.4

Beweis: $TS_s \Leftrightarrow TS_r \Rightarrow TS_r \Leftrightarrow TS_s$

Gegeben sei eine Bisimulationsrelation $\mathcal{B}_s$, so dass $TS_s \Leftrightarrow TS_r$ gilt.