

$$\left\{ \begin{array}{ll} (s_0, a) \textcircled{R} s_1, & (s_0, b) \textcircled{R} s_3, \\ (s_1, a) \textcircled{R} s_2, & (s_1, b) \textcircled{R} s_3, \\ (s_2, a) \textcircled{R} s_3, & (s_2, b) \textcircled{R} s_1, \\ (s_3, a) \textcircled{R} s_3, & (s_3, b) \textcircled{R} s_3 \end{array} \right\}$$