

$$\begin{aligned}
r_{3,1}^2 &= r_{3,2}^1 (r_{2,2}^1)^* r_{2,1}^1 + r_{3,1}^1 \\
&= (0 + 1)(\epsilon + 00)^* 0 + \emptyset \\
&= (0 + 1)(00)^* 0
\end{aligned}$$