$$\operatorname{start} \longrightarrow \begin{array}{c} 0 & \operatorname{a} \\ \end{array} \longrightarrow \begin{array}{c} 12 & \operatorname{b} \\ \end{array} \longrightarrow \begin{array}{c} 012 \\ \end{array} \longrightarrow b$$