

 $\mathtt{write}(1,r_1),\mathtt{read}(0),$ $\mathtt{write}(2,r_2),\mathtt{read}(0),$ $\ldots,\ldots,$ $\mathtt{write}(2^d,r_{2^d}),\mathtt{read}(0)$

$$\begin{split} & \texttt{write}(0,0), \texttt{read}(\textcolor{red}{1}), \\ & \texttt{write}(0,0), \texttt{read}(\textcolor{red}{2}), \\ & \cdots, \cdots, \\ & \texttt{write}(0,0), \texttt{read}(\textcolor{red}{2}^d) \end{split}$$

 $\begin{aligned} & \texttt{write}(0,0), \texttt{read}(0), \\ & \texttt{write}(0,0), \texttt{read}(0), \\ & \cdots, \cdots, \\ & \texttt{write}(0,0), \texttt{read}(0) \end{aligned}$