

$$\begin{aligned}
 & D(\text{out}) \\
 \vee & \left(\begin{array}{l} \sim \text{ls}(\text{out}) \\ \wedge \left(D(\text{lg}) \vee A(\text{in}, \text{lg}, a, \text{in}, \text{lg}, \text{lg}) \vee D(\text{out}) \vee A(\text{lg}, \text{out}, b, \text{lg}, \text{out}, \text{out}) \right) \\ ; W(D(\text{lg}) \vee A(\text{in}, \text{lg}, a, \text{in}, \text{lg}, \text{lg}) \vee D(\text{out}) \vee A(\text{lg}, \text{out}, b, \text{lg}, \text{out}, \text{out})) \end{array} \right)
 \end{aligned}$$