

# Synthesized solution for benchmark 01asendrecv.c



$$\begin{array}{l}
\downarrow \left\{ \begin{array}{l} \text{Cond} : \neg b_{26} \\ k_1 = (a_7 \cdot b = \text{recv}()); 1 \cdot 1 \cdot 1 \cdot 1 \cdot x = x - \text{.i}, ?1; ) * \neg a_7 \\ k_2 = (a_{19} \cdot b = \text{recv}()); (b_{26} \cdot \text{auth} = \text{check}(b); 1 \cdot n = \text{constructReply}(); () = \text{sendA}(n); \\ + \neg b_{26} \cdot () = \log(b); ) \cdot x = x - \text{.i}, ?1; ) * \neg a_{19} \end{array} \right. \\
\quad \downarrow \text{AComplete} \\
\quad \downarrow \left\{ \begin{array}{l} \text{Axioms} : \{I = 1, J = 1\} \\ k_1 = (a_7 \cdot b = \text{recv}()); 1 \cdot 1 \cdot 1 \cdot 1 \cdot x = x - \text{.i}, ?1; ) * \neg a_7 \\ k_2 = (a_{19} \cdot b = \text{recv}()); 1 \cdot () = \log(b); x = x - \text{.i}, ?1; ) * \neg a_{19} \end{array} \right. \\
\downarrow \left\{ \begin{array}{l} \text{Cond} : \neg c_{23} \\ k_1 = (a_7 \cdot b = \text{recv}()); 1 \cdot 1 \cdot 1 \cdot 1 \cdot x = x - \text{.i}, ?1; ) * \neg a_7 \\ k_2 = (a_{19} \cdot b = \text{recv}()); (b_{26} \cdot \text{auth} = \text{check}(b); (c_{23} \cdot n = \text{constructReply}(); () = \text{sendA}(n); \\ + \neg c_{23} \cdot 1) + \neg b_{26} \cdot () = \log(b); ) \cdot x = x - \text{.i}, ?1; ) * \neg a_{19} \end{array} \right. \\
\quad \downarrow \text{AComplete} \\
\quad \downarrow \left\{ \begin{array}{l} \text{Axioms} : \{I = 1, J = 1\} \\ k_1 = (a_7 \cdot b = \text{recv}()); 1 \cdot 1 \cdot 1 \cdot 1 \cdot x = x - \text{.i}, ?1; ) * \neg a_7 \\ k_2 = (a_{19} \cdot b = \text{recv}()); (b_{26} \cdot \text{auth} = \text{check}(b); 1 \cdot 1 + \neg b_{26} \cdot () = \log(b); ) \cdot x = x - \text{.i}, ?1; ) * \neg a_{19} \end{array} \right.
\end{array}$$

Remaining 37 solutions omitted for brevity.