

# Synthesized solution for benchmark 03syscalls.c

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solution
├── (Complete), cond  $b_{28} : x == 0$ 
│   ├──  $\left\{ \begin{array}{l} \text{Case } b_{28} : \\ k_1 = K_{32} \cdot L_{16} \cdot (b_{15} \cdot P_{35} \cdot W_{37} + \neg b_{15} \cdot 1) \cdot G_{12} \cdot (a_9 \cdot Y_{11} \cdot B_{10}) * \neg a_9 \cdot A_8 \\ k_2 = T_{30} \cdot M_{33} \cdot (b_{28} \cdot E_{27} \cdot O_{26} + \neg b_{28} \cdot 1) \cdot G_{25} \cdot ((a_{21} \wedge c_{22}) \cdot Y_{24} \cdot B_{23}) * (\neg a_{21} \vee \neg c_{22}) \cdot A_{20} \end{array} \right.$ 
│   │   └── AComplete
│   │       └──  $\left\{ \begin{array}{l} \text{Axioms} : \{K = 1, L = T, M = 1, P = 1, W = 1, !a = !c, Q = 1, U = 1\} \\ k_1 = K_{32} \cdot L_{16} \cdot (b_{15} \cdot P_{35} \cdot W_{37} + \neg b_{15} \cdot 1) \cdot G_{12} \cdot (a_9 \cdot Y_{11} \cdot B_{10}) * \neg a_9 \cdot A_8 \\ k_2 = T_{30} \cdot M_{33} \cdot 1 \cdot (b_{28} \cdot Q_{38} \cdot U_{39} + \neg b_{28} \cdot 1) \cdot G_{25} \cdot ((a_{21} \wedge c_{22}) \cdot Y_{24} \cdot B_{23}) * (\neg a_{21} \vee \neg c_{22}) \cdot A_{20} \end{array} \right.$ 
│   └──  $\left\{ \begin{array}{l} \text{Case } \neg b_{28} : \\ k_1 = K_{32} \cdot L_{16} \cdot (b_{15} \cdot P_{35} \cdot W_{37} + \neg b_{15} \cdot 1) \cdot G_{12} \cdot (a_9 \cdot Y_{11} \cdot B_{10}) * \neg a_9 \cdot A_8 \\ k_2 = T_{30} \cdot M_{33} \cdot (b_{28} \cdot E_{27} \cdot O_{26} + \neg b_{28} \cdot 1) \cdot G_{25} \cdot ((a_{21} \wedge c_{22}) \cdot Y_{24} \cdot B_{23}) * (\neg a_{21} \vee \neg c_{22}) \cdot A_{20} \end{array} \right.$ 
│       └── AComplete
│           └──  $\left\{ \begin{array}{l} \text{Axioms} : \{K = 1, L = T, M = 1, P = 1, W = 1, !a = !c, Q = 1, U = 1\} \\ k_1 = K_{32} \cdot L_{16} \cdot (b_{15} \cdot P_{35} \cdot W_{37} + \neg b_{15} \cdot 1) \cdot G_{12} \cdot (a_9 \cdot Y_{11} \cdot B_{10}) * \neg a_9 \cdot A_8 \\ k_2 = T_{30} \cdot M_{33} \cdot 1 \cdot (b_{28} \cdot Q_{42} \cdot U_{43} + \neg b_{28} \cdot 1) \cdot G_{25} \cdot ((a_{21} \wedge c_{22}) \cdot Y_{24} \cdot B_{23}) * (\neg a_{21} \vee \neg c_{22}) \cdot A_{20} \end{array} \right.$ 

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*Remaining 154 solutions omitted for brevity.*