

## Synthesized solution for benchmark 01conclloop.c

```

solution
├─ (Partial), cond  $b_{12}$ : number  $\geq 0$ 
├─ {
│    $Case_{b_{12}}$  :
│    $k_1 = O_8 \cdot (a_5 \cdot E_7 \cdot C_6) * \neg a_5$ 
│    $k_2 = O_{16} \cdot D_{18} \cdot ((a_{11} \wedge b_{12}) \cdot E_{14} \cdot C_{13}) * (\neg a_{11} \vee \neg b_{12})$ 
├─ (Partial), cond  $a_5$ : count  $\leq 4$ 
├─ {
│    $Case_{\neg a_5}$  :
│    $k_1 = U_{19} \cdot (a_5 \cdot E_7 \cdot C_6) * \neg a_5$ 
│    $k_2 = T_{20} \cdot D_{18} \cdot 1 \cdot ((a_{11} \wedge b_{12}) \cdot E_{14} \cdot C_{13}) * \neg a_{11}$ 
├─ (Partial), cond  $a_{11}$ : count  $\leq 4$ 
├─ {
│    $Case_{\neg a_{11}}$  :
│    $k_1 = U_{19} \cdot 0 \cdot 0$ 
│    $k_2 = T_{20} \cdot D_{18} \cdot 1 \cdot ((a_{11} \wedge b_{12}) \cdot E_{14} \cdot C_{13}) * \neg a_{11}$ 
├─ AComplete
├─ {
│    $Axioms : \{D = 1, U = 1, T = 1\}$ 
│    $k_1 = U_{19} \cdot 0 \cdot 0$ 
│    $k_2 = T_{20} \cdot D_{18} \cdot 1 \cdot 0 \cdot 0$ 

```

*Remaining 12 solutions ommitted for brevity.*