

Synthesized solution for benchmark `01assume.c`

```

solution
├─ (Complete), cond:  $count \leq 4$ 
├─ {
    Cond :  $a_5$ 
     $k_1 = count = nondet(); (a_5 \cdot ()) = printf(count);$ 
     $count = count + i, ?1; ) * \neg a_5$ 
     $k_2 = count = nondet(); 1 \cdot ((a_{11} \wedge b_{12}) \cdot ()) = printf(count);$ 
     $count = count + i, ?1; ) * \neg a_{11}$ 
  }
├─ (Complete), cond:  $number \geq 0$ 
├─ {
    Cond :  $b_{12}$ 
     $k_1 = count = nondet(); 1 \cdot (a_5 \cdot ()) = printf(count);$ 
     $count = count + i, ?1; ) * \neg a_5$ 
     $k_2 = count = nondet(); 1 \cdot ((a_{11} \wedge b_{12}) \cdot ()) = printf(count);$ 
     $count = count + i, ?1; ) * \neg a_{11}$ 
  }
├─ AComplete
├─ {
    Axioms :  $\{D = 1, E = 1, I = 1, T = 1, U = 1\}$ 
     $k_1 = count = nondet(); 1 \cdot (a_5 \cdot ()) = printf(count);$ 
     $count = count + i, ?1; ) * \neg a_5$ 
     $k_2 = count = nondet(); 1 \cdot ((a_{11} \wedge b_{12}) \cdot ()) = printf(count);$ 
     $count = count + i, ?1; ) * \neg a_{11}$ 
  }
├─ {
    Cond :  $\neg a_5$ 
     $k_1 = count = nondet(); (a_5 \cdot ()) = printf(count);$ 
     $count = count + i, ?1; ) * \neg a_5$ 
     $k_2 = count = nondet(); 1 \cdot ((a_{11} \wedge b_{12}) \cdot ()) = printf(count);$ 
     $count = count + i, ?1; ) * \neg a_{11}$ 
  }
├─ AComplete
├─ {
    Axioms :  $\{D = 1, E = 1\}$ 
     $k_1 = count = nondet(); 1 \cdot (a_5 \cdot 0) * \neg a_5$ 
     $k_2 = count = nondet(); 1 \cdot ((a_{11} \wedge b_{12}) \cdot ()) = printf(count);$ 
     $count = count + i, ?1; ) * \neg a_{11}$ 
  }

```

*Remaining 42 solutions omitted for brevity.*