Abstract States (4 in 00:00.079):

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\begin{array}{l} q0 \; \cong \; \text{and}(\neg(p0 \; \cong \; h \; = \; \text{tic}), \; \neg(p1 \; \cong \; \exists (i \; \in \; 1...n, \; j \; \in \; 1...n). (\text{and}(i \; \not = \; j, \; \text{bat}(i) \; = \; \text{ok}, \; \text{bat}(j) \; = \; \text{ok})))) \\ q1 \; \cong \; \text{and}(\neg(p0 \; \cong \; h \; = \; \text{tic}), \; p1 \; \cong \; \exists (i \; \in \; 1...n, \; j \; \in \; 1...n). (\text{and}(i \; \not = \; j, \; \text{bat}(i) \; = \; \text{ok}, \; \text{bat}(j) \; = \; \text{ok}))) \\ q2 \; \cong \; \text{and}(p0 \; \cong \; h \; = \; \text{tic}, \; \neg(p1 \; \cong \; \exists (i \; \in \; 1...n, \; j \; \in \; 1...n). (\text{and}(i \; \not = \; j, \; \text{bat}(i) \; = \; \text{ok}, \; \text{bat}(j) \; = \; \text{ok})))) \\ q3 \; \cong \; \text{and}(p0 \; \cong \; h \; = \; \text{tic}, \; p1 \; \cong \; \exists (i \; \in \; 1...n, \; j \; \in \; 1...n). (\text{and}(i \; \not = \; j, \; \text{bat}(i) \; = \; \text{ok}, \; \text{bat}(j) \; = \; \text{ok}))) \end{array}
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