```
Results for CXP (in 00:00:00.916):
     NB EV: 4
     AP: AP0
     NB AP: 2
     NB_MAY: -1
     NB_MUST_MINUS: -1
     NB MUST PLUS: -1
     NB MUST SHARP: -1
     NB AS: 4
     NB AS RCHD: 2
     TAU AS: 50.00
     NB AT: 11
     NB_AT_RCHD: 6
     TAU AT: 54.55
     NB_EXPECTED_AS: 4
     NB_EXPECTED_AS_RCHD: 2
     TAU EXPECTED AS: 50.00
     NB EXPECTED AT: 2
     NB EXPECTED AT RCHD: 0
     TAU_EXPECTED_AT: 0.00
     NB CS: 28
     NB CS RCHD: 6
     NB CT: 17
     NB CT RCHD: 6
     RHO CS: 21.43
     RHO CT: 35.29
     NB TESTS: 3
     NB_STEPS: 11
        \texttt{c0q1} = \texttt{bat(1)} = 9, \ \texttt{bat(2)} = 9, \ \texttt{bat(3)} = 9, \ \texttt{bat(4)} = 9, \ \texttt{bat(5)} = 9, \ \texttt{bat(6)} = 9, \ \texttt{bat(7)} = 9, \ \texttt{bat(8)} = 9, \ \texttt{h=7}, \ \texttt{sw=1} - [ \ \texttt{Fail} \ ] -> \ \texttt{c1q1} = \ \texttt{bat(1)} = 9, \ \texttt{bat(2)} = 9, \ \texttt{bat(3)} = 9, \ \texttt{bat(3)
   Cdq1 = Dat(1)=9, Dat(2)=9, Dat(3)=9, Dat(3)=9, Dat(6)=9, Dat(6)=9,
bat(3)=9, bat(4)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(6)=9, bat(7)=9, bat(8)=9, h=7, sw=1 -[ Fail ]-> clq1 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=7, sw=1 -[ Tic ]-> c8q3 = bat(1)=9, bat(2)=9, bat(3)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(5)=9, bat(6)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=6, sw=1 -[ Tic ]-> c8q3 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=6, sw=1 -[ Repair ]-> c23q3 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=6, sw=1 -[ Repair ]-> c23q3 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=6, sw=1 -[ Fail ]-> clq1 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(8)=9, h=7, sw=1 -[ Fail ]-> clq1 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=7, sw=1 -[ Repair ]-> c0q1 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=7, sw=1 -[ Repair ]-> c0q1 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=7, sw=1 -[ Fail ]-> clq1 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(8)=9, h=7, sw=1 -[ Fail ]-> clq1 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=7, sw=1 -[ Fail ]-> clq1 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=7, sw=1 -[ Fail ]-> clq1 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=7, sw=1 -[ Fail ]-> clq1 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=7, sw=1 -[ Fail ]-> clq1 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=7, sw=1 -[ Commute ]-> cl5q1 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(6)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=7, sw=2 ##############################
     SET EXPECTED AS:
  q_0 = \neg(p_0 = h = tic[6]), \ \neg(p_1 = \exists (i, j).(and(and(i \in [1..n], j \in [1..n]), and(i \neq j, bat(i) = ok[9], bat(j) = ok[9])))) \\ q_1 = \neg(p_0 = h = tic[6]), \ (p_1 = \exists (i, j).(and(and(i \in [1..n], j \in [1..n]), and(i \neq j, bat(i) = ok[9], bat(j) = ok[9])))) \\ q_2 = (p_0 = h = tic[6]), \ \neg(p_1 = \exists (i, j).(and(and(i \in [1..n], j \in [1..n]), and(i \neq j, bat(i) = ok[9], bat(j) = ok[9])))) \\ q_3 = (p_0 = h = tic[6]), \ (p_1 = \exists (i, j).(and(and(i \in [1..n], j \in [1..n]), and(i \neq j, bat(i) = ok[9], bat(j) = ok[9])))) 
    \begin{array}{l} \mathsf{SET\_RCHD\_AS:} \\ \mathsf{q1} = \neg(\mathsf{p0} = \mathsf{h=tic[6]}), \; (\mathsf{p1} = \exists (\mathsf{i},\; \mathsf{j}).(\mathsf{and}(\mathsf{and}(\mathsf{i} \in [1..n],\; \mathsf{j} \in [1..n]),\; \mathsf{and}(\mathsf{i} \neq \mathsf{j},\; \mathsf{bat}(\mathsf{i}) = \mathsf{ok}[9],\; \mathsf{bat}(\mathsf{j}) = \mathsf{ok}[9])))) \\ \mathsf{q3} = (\mathsf{p0} = \mathsf{h=tic[6]}), \; (\mathsf{p1} = \exists (\mathsf{i},\; \mathsf{j}).(\mathsf{and}(\mathsf{and}(\mathsf{i} \in [1..n],\; \mathsf{j} \in [1..n]),\; \mathsf{and}(\mathsf{i} \neq \mathsf{j},\; \mathsf{bat}(\mathsf{i}) = \mathsf{ok}[9],\; \mathsf{bat}(\mathsf{j}) = \mathsf{ok}[9])))) \\ \end{array} 
     SET RCHD EXPECTED AS:
      \begin{array}{l} q1 = \neg(p0 = h = tic[6]), \; (p1 = \exists (i, j).(and(and(i \in [1..n], j \in [1..n]), \; and(i \neq j, \; bat(i) = ok[9], \; bat(j) = ok[9])))) \\ q3 = (p0 = h = tic[6]), \; (p1 = \exists (i, j).(and(and(i \in [1..n], j \in [1..n]), \; and(i \neq j, \; bat(i) = ok[9], \; bat(j) = ok[9])))) \\ \end{array} 
    \begin{split} & \text{SET\_EXPECTED\_AT:} \\ & \text{q1} = \neg(\text{p0} = \overline{\text{h}} = \text{tic[6]}), \; (\text{p1} = \exists (i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \; \text{and}(i \neq j, \; \text{bat}(i) = \text{ok}[9], \; \text{bat}(j) = \text{ok}[9])))) \; \text{-}[\; \text{Fail} \; ] \text{->} \; \text{q0} = \neg(\text{p0} = \text{h} = \text{tic}[6]), \; \neg(\text{p1} = \exists (i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \; \text{and}(i \neq j, \; \text{bat}(i) = \text{ok}[9], \; \text{bat}(j) = \text{ok}[9])))) \; \text{-}[\; \text{Fail} \; ] \text{->} \; \text{q2} = (\text{p0} = \text{h} = \text{tic}[6]), \; \neg(\text{p1} = \exists (i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \; \text{and}(i \neq j, \; \text{bat}(i) = \text{ok}[9], \; \text{bat}(j) = \text{ok}[9])))) \; \text{-}[\; \text{Fail} \; ] \text{->} \; \text{q2} = (\text{p0} = \text{h} = \text{tic}[6]), \; \neg(\text{p1} = \exists (i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \; \text{and}(i \neq j, \; \text{bat}(i) = \text{ok}[9], \; \text{bat}(j) = \text{ok}[9])))) \; \text{-}[\; \text{Fail} \; ] \text{->} \; \text{q2} = (\text{p0} = \text{h} = \text{tic}[6]), \; \neg(\text{p1} = \exists (i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \; \text{and}(i \neq j, \; \text{bat}(i) = \text{ok}[9], \; \text{bat}(j) = \text{ok}[9])))) \; \text{-}[\; \text{Fail} \; ] \text{->} \; \text{q2} = (\text{p0} = \text{h} = \text{h} = \text{tic}[6]), \; \neg(\text{p1} = \exists (i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \; \text{and}(i \neq j, \; \text{bat}(i) = \text{ok}[9], \; \text{bat}(j) = \text{ok}[9])))) \; \text{-}[\; \text{Fail} \; ] \text{->} \; \text{q2} = (\text{p0} = \text{h} = \text{tic}[6]), \; \neg(\text{p1} = \exists (i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \; \text{and}(i \neq j, \; \text{bat}(i) = \text{ok}[9], \; \text{bat}(j) = \text{ok}[9])))) \; \text{-}[\; \text{Fail} \; ] \text{->} \; \text{q2} = (\text{p0} = \text{h} = \text{tic}[6]), \; \neg(\text{p1} = \exists (i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \; \text{and}(i \neq j, \; \text{bat}(i) = \text{ok}[9], \; \text{bat}(j) = \text{ok}[9])))) \; \text{-}[\; \text{Fail} \; ] \text{->} \; \text{q2} = (\text{p0} = \text{p1} = \text{p1}), \; \text{q2}) \; \text{-}[\; \text{p1} = \text{p1} = \text{p2} = \text{p2}), \; \text{p2} = \text{p2}) \; \text{q3}) \; \text{-}[\; \text{p1} = \text{p2} = \text{p2} = \text{p2}) \; \text{-}[\; \text{p2} = \text{p2} = \text{p2}) \; \text{-}[\; \text{p2} = \text{p2} = \text{p2}) \; \text{-}[\; \text{p2} = \text{p2} = \text{p2} = \text{p2}) \; \text{-}[\; \text{p2} = \text{p2} = \text{p2} = \text{p2}) \; \text{-}[\; \text{p2} = \text{p2} = \text{p2} = \text{p2}) \; \text{-}[\; \text{p2} = \text{p2} = \text{p2}) \; \text{-}[\; \text{p2} = \text{p2} = \text{p2}) \; \text{-}[\; \text{p2} = \text{p2} = \text{p2} = \text{p2}) \; \text{-}[\; \text{p2} = \text{p2}
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SET_RCHD_AT:
q1 = -(p6 = hettic[6]), (p1 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9]))) -[ Fait ] >> q1 = -(p6 = hettic[6]), (p1 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))) -[ Repair ] >> q1 = -(p6 = hettic[6]), (p1 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))) -[ Repair ] >> q1 = -(p6 = hettic[6]), (p1 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))) -[ Tic] >> q3 = (p6 = hettic[6]), (p1 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))) -[ Tic] >> q3 = (p6 = hettic[6]), (p1 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9]))) -[ Commute] >> q1 = -(p6 = hettic[6]), (p1 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9]), bat(j)=ok[9]))) -[ Fait ] >> q3 = (p6 = hettic[6]), (p1 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9]), bat(j)=ok[9]))) -[ Fait ] >> q3 = (p6 = hettic[6]), (p1 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9]), bat(j)=ok[9]))) -[ Repair ] >> q3 = (p6 = hettic[6]), (p1 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9]))) -[ Repair ] >> q3 = (p6 = hettic[6]), (p1 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9]))) -[ Repair ] >> q3 = (p6 = hettic[6]), ¬(p1 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9]))) -[ Repair ] >> q3 = (p6 = hettic[6]), ¬(p1 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9]))) -[ Repair ] >> q1 = ¬(p6 = hettic[6]), ¬(p1 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9]))) -[ Repair ] >> q1 = ¬(p6 = hettic[6]), ¬(p1 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9]))) -[ Repair ] >> q1 = ¬(p6 = hettic[6]), ¬(p1 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9]))) -[ Fait ]
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TIME TESTS: 00:00:00.000