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Results for CXP (in 00:00:00.594):
    NB EV: 4
    AP: AP1
    NB AP: 2
    NB_MAY: -1
    NB_MUST_MINUS: -1
    NB MUST PLUS: -1
    NB MUST SHARP: -1
    NB AS: 3
    NB_AS_RCHD: 2
    TAU AS: 66.67
    NB AT: 9
    NB_AT_RCHD: 6
    TAU AT: 66.67
    NB_EXPECTED_AS: 3
    NB_EXPECTED_AS_RCHD: 2
    TAU EXPECTED AS: 66.67
    NB EXPECTED AT: 1
    NB EXPECTED AT RCHD: 0
    TAU_EXPECTED_AT: 0.00
    NB CS: 22
    NB_CS_RCHD: 6
    NB CT: 15
    NB CT RCHD: 6
    RHO CS: 27.27
    RHO CT: 40.00
    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)
   cwq1 = pat(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(7)=9, bat(7)=9, bat(8)=8, h=7, sw=1 clq1 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(4)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(6)=9, bat(6)=9, bat(7)=9, bat(6)=9, bat(7)=9, bat(6)=9, bat(7)=9, bat(6)=9, bat(7)=9, bat(6)=9, bat(7)=9, bat(6)=9, bat
bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(6)=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(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 ]-> c8q2 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(5)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=6, sw=1 -[ Tic ]-> c8q2 = 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 ]-> c19q2 = bat(1)=9, bat(2)=9, bat(3)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=6, sw=1 -[ Repair ]-> c19q2 = bat(1)=9, bat(2)=9, bat(3)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=6, sw=1 -[ Fail ]-> c1q1 = 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 ]-> c1q1 = 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(7)=9, bat(8)=9, h=7, sw=1 -[ Fail ]-> c1q1 = 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 ]-> c1q1 = 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 ]-> c1q1 = 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 ]-> c1q1 = 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 ]-> c1q1 = 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 ]-> c1q1 = 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 ]-> c1q1 = 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 -[ Commute ]-> c13q1 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, b
    SET_EXPECTED_AS:
     \begin{array}{l} q0 = \neg(p0 = \overline{\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],\ h=tic[6])))),\ \neg(p1 = h=tac[7])\\ q1 = \neg(p0 = \overline{\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],\ h=tic[6])))),\ \neg(p1 = h=tac[7])\\ q2 = (p0 = \overline{\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],\ h=tic[6])))),\ \neg(p1 = h=tac[7]) \end{array} 
    SET RCHD AS:
    q1 = \neg(p0 = \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], h=tic[6])))), (p1 = h=tac[7])
q2 = (p0 = \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], h=tic[6]))), \neg(p1 = h=tac[7])
    SET_RCHD_EXPECTED_AS:
     \begin{array}{lll} \exists i \mid \neg \text{colo} = \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{h=tic}[6])))), \ \neg \text{(p1 = h=tac}[7]) \\ \forall p = \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{h=tic}[6])))), \ \neg \text{(p1 = h=tac}[7]) \\ \forall p = \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{h=tic}[6])))), \ \neg \text{(p1 = h=tac}[7]) \\ \forall p = \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{h=tic}[6])))), \ \neg \text{(p1 = h=tac}[7]) \\ \forall p = \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{h=tic}[6])))), \ \neg \text{(p1 = h=tac}[7]) \\ \forall p = \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
     \begin{split} & \mathsf{SET}\_\mathsf{EXPECTED}\_\mathsf{AT}: \\ & \mathsf{q1} = \neg(\mathsf{p0} = \overline{\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{h} = \mathsf{tic}[6])))),\;(\mathsf{p1} = \mathsf{h} = \mathsf{tac}[7]) \;\;\mathsf{-[}\;\;\mathsf{Tic}\;\;\mathsf{]} - \mathsf{p0} = \neg(\mathsf{p0} = \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{h} = \mathsf{tic}[6])))),\;\neg(\mathsf{p1} = \mathsf{h} = \mathsf{tac}[7]) \end{split} 
    SET_RCHD_AT:
    q1 = \neg(p0 = \exists (i, j).(and(and(i \in [1..n], j \in [1..n]), and(i \ne j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6])))), (p1 = h=tac[7]) - [Fail ]-> q1 = \neg(p0 = \exists (i, j).(and(and(i \in [1..n], j \in [1..n]), and(i \ne j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6])))), (p1 = h=tac[7])
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| q1 = -(p0 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6]))), (p1 = h=tac[7]) - [Repair ]-> q1 = -(p0 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6])))), (p1 = h=tac[7]) - [T ic] -> q2 = (p0 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6]))), (p1 = h=tac[7]) - [T ic] -> q2 = (p0 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6]))), (p1 = h=tac[7]) - [Commute] -> q1 = -(p0 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6])))), (p1 = h=tac[7]) - [Commute] -> q1 = -(p0 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6])))), (p1 = h=tac[7]) - [F il] -> q2 = (p0 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6])))), -(p1 = h=tac[7]) - [F il] -> q2 = (p0 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6])))), -(p1 = h=tac[7]) - [Repair] -> q2 = (p0 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6])))), -(p1 = h=tac[7]) - [Repair] -> q2 = (p0 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6])))), -(p1 = h=tac[7]) - [Repair] -> q2 = (p0 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6])))), -(p1 = h=tac[7]) - [Repair] -> q2 = (p0 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6])))), -(p1 = h=tac[7]) - [Repair] -> q2 = (p0 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6])))), -(p1 = h=tac[7]) - [Repair] -> q2 = (p0 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6])))), -(p1 = h=tac[7]) - [F il] -> q0 = -(p0 = 3(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9], h=tic[6])))), -(p1 = h=tac[7]) - [F il] -> q0
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TIME\_ATS: 00:00:00.594
TIME TESTS: 00:00:00.000