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Results for CXPASO (in 00:00:00.795):
 NB EV: 4
 AP: AP2
 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: 11
 NB_AT_RCHD: 8
 TAU AT: 72.73
 NB_EXPECTED_AS: 3
 NB_EXPECTED_AS_RCHD: 2
 TAU EXPECTED AS: 66.67
 NB EXPECTED AT: 2
 NB EXPECTED AT RCHD: 0
 TAU_EXPECTED_AT: 0.00
 NB CS: 22
 NB CS RCHD: 7
 NB CT: 16
 NB CT RCHD: 8
 RH0 CS: 31.82
 RHO CT: 50.00
 NB TESTS: 2
 NB_STEPS: 10
 TESTS:
    \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{c1q3} = \ \texttt{bat(1)} = 9, \ \texttt{bat(2)} = 9, \ \texttt{bat(3)} = 9, \ \texttt{bat(3)
 bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=7, sw=1 clq3 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(8)=8, bat(8)=
C1q3 = 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 -[ Falt ]-> C3q3 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(6)=9, bat(7)=8, bat(8)=8, h=7, sw=1 -[ Repair ]-> c1q3 = bat(1)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=8, bat(7)=8, bat(8)=8, h=7, sw=1 -[ Repair ]-> c1q3 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(6)=9, bat(7)=9, bat(8)=8, h=7, sw=1 -[ Repair ]-> c0q1 = bat(1)=9, bat(2)=9, bat(2)=9, bat(3)=9, bat(4)=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(2)=9, bat(3)=9, bat(4)=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(3)=9, bat(4)=9, bat(3)=9, bat(3
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, bat(8)=8, bat(8)=9, bat(8)=9, bat(8)=9, bat(8)=9, bat(8)=9, bat(8)=9, bat(8)=9, bat(8)=9, bat(8)=8, bat(8)=9, bat(8)
Cdg = bat(1)=9, bat(2)=9, bat(5)=9, bat(6)=9, bat(7)=8, bat(8)=8, bat(7)=9, bat(8)=8, bat(8)=9, bat(8)=8, bat(8)=8, bat(8)=8, bat(8)=8, bat(8)=8, bat(8)=8, bat(8)=9, 
SET EXPECTED AS:
                                        \neg (p0 = \overline{\exists} (nb) \cdot (and(and(nb \in [1..n]), \ and(bat(nb) = ko[8])))), \ (p1 = \exists (i, j) \cdot (and(and(i \in [1..n]), j \in [1..n]), \ and(i \neq j, \ bat(i) = ok[9], b
 bat(j)=ok[9]))))
                                                                                       \exists (nb). (and(and(nb \in [1..n]), and(bat(nb)=ko[8])))), \neg (p1 = \exists (i, j). (and(and(i \in [1..n], j \in [1..n]), and(i \neq j, bat(i)=ok[9], and(i) = [1..n]))
 \begin{array}{l} 42 - (p0 \\ \text{bat(j)=ok[9])))} \\ \text{q3} = (p0 = \exists (\text{nb}).(\text{and}(\text{and}(\text{nb} \in [1..n]), \text{and}(\text{bat}(\text{nb})=\text{ko}[8])))), (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], j))) \\ \text{q3} = (p0 = \exists (\text{nb}).(\text{and}(\text{and}(\text{nb} \in [1..n]), \text{and}(\text{bat}(\text{nb})=\text{ko}[8])))), (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], j))) \\ \text{q3} = (p0 = \exists (\text{nb}).(\text{and}(\text{and}(\text{nb} \in [1..n]), \text{and}(\text{bat}(\text{nb})=\text{ko}[8]))))), (p1 = \exists (i, j).(\text{and}(\text{and}(\text{in} \in [1..n]), \text{and}(\text{in} \neq j, \text{bat}(\text{in})=\text{ok}[9], j)))) \\ \text{q3} = (p0 = \exists (\text{nb}).(\text{and}(\text{and}(\text{in} \in [1..n]), \text{and}(\text{bat}(\text{in})=\text{ok}[8]))))), (p1 = \exists (i, j).(\text{and}(\text{and}(\text{in} \in [1..n]), \text{and}(\text{in} \neq j, \text{bat}(\text{in})=\text{ok}[9], j)))) \\ \text{q3} = (p0 = \exists (\text{nb}).(\text{and}(\text{and}(\text{in} \in [1..n]), \text{and}(\text{bat}(\text{in})=\text{ok}[8])))))), (p1 = \exists (i, j).(\text{and}(\text{and}(\text{in} \in [1..n]), \text{and}(\text{in} \neq j, \text{bat}(\text{in})=\text{ok}[9], j)))) \\ \text{q3} = (p0 = \exists (\text{nb}).(\text{and}(\text{and}(\text{in} \in [1..n]), \text{and}(\text{in} \in [1..n]), \text{and}(\text{in} \in [1..n])))))))) \\ \text{q4} = (p0 = \exists (\text{in} \in [1..n]), \text{in} \in [1..n])) \\ \text{q5} = (p0 = \exists (\text{in} \in [1..n]), \text{in} \in [1..n])) \\ \text{q5} = (p0 = \exists (\text{in} \in [1..n]), \text{in} \in [1..n])) \\ \text{q6} = (p0 = \exists (\text{in} \in [1..n]), \text{in} \in [1..n])) \\ \text{q7} = (p0 = \exists (\text{in} \in [1..n]), \text{in} \in [1..n])) \\ \text{q7} = (p0 = \exists (\text{in} \in [1..n]), \text{in} \in [1..n]) \\ \text{q8} = (p0 = \exists (\text{in} \in [1..n]), \text{in} \in [1..n])) \\ \text{q9} = (p0 = \exists (\text{in} \in [1..n]), \text{in} \in [1..n]) \\ \text{q9} = (p0 = \exists (\text{in} \in [1..n]), \text{in} \in [1..n]) \\ \text{q9} = (p0 = \exists (\text{in} \in [1..n]), \text{in} \in [1..n]) \\ \text{q9} = (p0 = \exists (\text{in} \in [1..n]), \text{in} \in [1..n]) \\ \text{q9} = (p0 = \exists (\text{in} \in [1..n]), \text{in} \in [1..n]) \\ \text{q9} = (p0 = [1..n]), \text{in} \in [1..n]) \\ \text{q9} = (p0 = [1..n]) \\ \text{q9} = (p0 = [1..n]), \text{q9} = (p0 = [1..n]), \text{q9} = (p0 = [1..n]) \\ \text{q9} = (p0 = [1..n]) \\ \text{q9} = (p0 = [1..n]), \text{q9} = (p0 = [1..n]) \\ \text{q9} = (p0 = [1..n]) \\ \text{q9} = (p0 = [1..n]), \text{q9} = (p0 = [1..n]) \\ \text{q9} = (p0 = [1..n]), \text{q9} = (p0 = [1..n]) 
  \begin{split} & \mathsf{SET\_RCHD\_AS:} \\ & \mathsf{q1} = \neg(\mathsf{p0} = \exists(\mathsf{nb}).(\mathsf{and}(\mathsf{and}(\mathsf{nb} \in [1..n]), \ \mathsf{and}(\mathsf{bat}(\mathsf{nb}) = \mathsf{ko}[8])))), \ (\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{bat}(\mathsf{j}) = \mathsf{ok}[9]))) \\ \end{aligned} 
   bat(j)=ok[9]))))
 SET_RCHD_EXPECTED_AS:
  \vec{q1} = \neg(\vec{p0} = \exists (nb). (and (and (nb \in [1..n]), and (bat (nb) = ko[8])))), \\ (\vec{p1} = \exists (i, j). (and (and (i \in [1..n]), j \in [1..n]), and (i \neq j, bat (i) = ok[9], and (bat (nb) = ko[8])))) 
   bat(j)=ok[9]))))
  q3 = (p0 = \exists (nb).(and(and(nb \in [1..n]), and(bat(nb) = ko[8])))), (p1 = \exists (i, j).(and(and(i \in [1..n]), j \in [1..n]), and(i \neq j, bat(i) = ok[9], bat(i) = ok[9], and(bat(nb) = bat(i) = ok[9], bat(i) = ok[9]
 bat(j)=ok[9]))))
 SET EXPECTED AT:
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and($i \neq j$, bat(i)=ok[9], bat(j)=ok[9])))

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 \begin{array}{l} q3 = (p0 = \exists (nb).(and(and(nb \in [1..n]), \ and(bat(nb) = ko[8])))), \ (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])))) - [ \ Fail \ ]-> \\ q2 = (p0 = \exists (nb).(and(and(nb \in [1..n]), \ and(bat(nb) = ko[8])))), \ \neg (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} 
SET RCHD AT:
     SET RCHD EXPECTED AT:
      \begin{split} & \mathsf{SET\_UNRCHD\_AS:} \\ & \mathsf{q2} = (\mathsf{p0} = \exists (\mathsf{nb}).(\mathsf{and}(\mathsf{and}(\mathsf{nb} \in [1..n]), \ \mathsf{and}(\mathsf{bat}(\mathsf{nb}) = \mathsf{ko}[8])))), \ \neg(\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{aligned} 
      \begin{array}{l} = -2 & \text{constant} \\ \text{q2} = (\text{p0} = \exists (\text{nb}).(\text{and}(\text{and}(\text{nb} \in [1..n]), \text{and}(\text{bat}(\text{nb}) = \text{ko}[8])))), \\ \neg (\text{p1} = \exists (\text{i, j}).(\text{and}(\text{and}(\text{i} \in [1..n], \text{j} \in [1..n]), \text{and}(\text{i} \neq \text{j, bat}(\text{i}) = \text{ok}[9], \text{bat}(\text{j}) = \text{ok}[9]))) \end{array} 
  \begin{split} & \mathsf{SET\_UNRCHD\_AT:} \\ & \mathsf{Q2} = (\mathsf{p0} = \exists (\mathsf{nb}).(\mathsf{and}(\mathsf{and}(\mathsf{nb} \in [1..n]), \, \mathsf{and}(\mathsf{bat}(\mathsf{nb}) = \mathsf{ko}[8])))), \, \neg(\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{Q2} = (\mathsf{p0} = \exists (\mathsf{nb}).(\mathsf{and}(\mathsf{and}(\mathsf{nb} \in [1..n]), \, \mathsf{and}(\mathsf{bat}(\mathsf{nb}) = \mathsf{ko}[8]))), \, \neg(\mathsf{p1} = \exists (\mathsf{i}, \, \mathsf{j}).(\mathsf{and}(\mathsf{and}(\mathsf{i} \in [1..n]), \, \mathsf{and}(\mathsf{i} \in [1..n]), \, \mathsf{and}(\mathsf{i} \neq \mathsf{j}, \, \mathsf{bat}(\mathsf{i}) = \mathsf{ok}[9])))) \\ & \mathsf{Q2} = (\mathsf{p0} = \exists (\mathsf{nb}).(\mathsf{and}(\mathsf{and}(\mathsf{nb} \in [1..n]), \, \mathsf{and}(\mathsf{bat}(\mathsf{nb}) = \mathsf{ko}[8]))), \, \neg(\mathsf{p1} = \exists (\mathsf{i}, \, \mathsf{j}).(\mathsf{and}(\mathsf{and}(\mathsf{i} \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} = \exists (\mathsf{nb}).(\mathsf{and}(\mathsf{and}(\mathsf{nb} \in [1..n]), \, \mathsf{and}(\mathsf{bat}(\mathsf{nb}) = \mathsf{ko}[8])))), \, \neg(\mathsf{p1} = \exists (\mathsf{i}, \, \mathsf{j}).(\mathsf{and}(\mathsf{and}(\mathsf{i} \in [1..n]), \, \mathsf{and}(\mathsf{i} \neq [1..n])
    \begin{split} & \text{SET\_UNRCHD\_EXPECTED\_AT:} \\ & \text{Q2} = (p0 = \exists (nb).(\text{and}(\text{and}(\text{nb} \in [1..n]), \text{ and}(\text{bat}(\text{nb}) = \text{ko}[8])))), \ \neg (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{and}(i \neq j, \text{bat}(i) = \text{ok}[9], \text{bat}(j) = \text{ok}[9]))) \\ & \text{q3} = (p0 = \exists (\text{nb}).(\text{and}(\text{and}(\text{nb} \in [1..n]), \text{and}(\text{bat}(\text{nb}) = \text{ko}[8])))), \ (p1 = \exists (i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \text{and}(\text{bat}(\text{nb}) = \text{ko}[8])))), \ q3 = (p0 = \exists (\text{nb}).(\text{and}(\text{and}(\text{nb} \in [1..n]), \text{and}(\text{bat}(\text{nb}) = \text{ko}[8])))), \ \neg (p1 = \exists (i, j).(\text{and}(\text{and}(\text{i} \in [1..n]), \text{and}(\text{i} \neq j, \text{bat}(i) = \text{ok}[9], \text{bat}(i) = \text{ok}[
     and(i \neq j, bat(i)=ok[9], bat(j)=ok[9])))
     TIME TESTS: 00:00:00.000
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TIME_ATS: 00:00:00.795