```
Results for CXPASO (in 00:00:00.858):
     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: 22
     NB CS RCHD: 6
     NB CT: 15
     NB CT RCHD: 6
     RH0 CS: 27.27
     RHO CT: 40.00
     NB TESTS: 1
     NB_STEPS: 9
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)=8, 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)=9, h=7, sw=2 -[ Repair ]-> c2q1 = 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)=9, h=7, sw=2 -[ Repair ]-> c2q1 = 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)=9, h=7, sw=2 -[ Tic ]-> c3q3 = 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(6)=9, bat(7)=9, bat(8)=9, h=7, sw=2 -[ Commute ]-> c0q1 = 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)=9, h=6, sw=2 -[ Commute ]-> c0q1 = 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)=9, h=7, sw=1 -[ Fail ]-> c1q1 = bat(1)=8, bat(2)=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=2 -[ Repair ]-> c1q1 = bat(1)=8, 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)=9, h=7, sw=2 -[ Fail ]-> c1q1 = bat(1)=8, 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)=9, h=7, sw=2 -[ Tic ]-> c3q3 = 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=2 -[ Tic ]-> c3q3 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(8)=9, bat(7)=9, bat(8)=9, h=7, sw=2 -[ Fail ]-> c4q3 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(8)=9, bat(7)=9, bat(8)=9, h=6, sw=2 -[ Fail ]-> c4q3 = bat(1)=9, bat(2)=8, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=9, bat(8)=9, bat(7)=9, bat(8)=9, h=6, sw=1 -[ Repair ]-> c5q3 = bat(1)=9, bat(2)=8, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(6)=9, bat(7)=9, bat(8)=9, h=6, sw=1 -[ Repair ]-> c5q3 = bat(1)=9, bat(2)=8, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(6)=9, bat(6)=9, bat(7)=9, bat(8)=9, bat(7)=9, bat(8)=9, bat(8)=9, b
        \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)} = 8, \ \texttt{bat(2)} = 9, \ \texttt{bat(2)} = 9, \ \texttt{bat(2)} = 9, \ \texttt{bat(3)} = 9, \ \texttt{bat(4)} =
     SET EXPECTED AS:
    \begin{array}{l} \text{SEI} = \text{EXPECTED} . \text{AS:} \\ \text{Q} = \neg(\text{p0} = \text{h} = \text{tic}[6]), \ \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])))) \\ \text{q1} = \neg(\text{p0} = \text{h} = \text{tic}[6]), \ (\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])))) \\ \text{q2} = (\text{p0} = \text{h} = \text{tic}[6]), \ \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])))) \\ \text{q3} = (\text{p0} = \text{h} = \text{tic}[6]), \ (\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{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])))) \\ \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])))) \\ \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])))) \\ \mathsf{q3} = (\mathsf{p0} = \mathsf{h=tic[6]}), \; (\mathsf{p1} = \exists (\mathsf{i},\; \mathsf{j}).(\mathsf{qnd}(\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{qnd}(\mathsf{qnd}(\mathsf{i} \in [1..n],\; \mathsf{j} \in [1..n]),\; \mathsf{qnd}(\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{qnd}(\mathsf{qnd}(\mathsf{i} \in [1..n],\; \mathsf{j} \in [1..n]),\; \mathsf{qnd}(\mathsf{i} \in [1..n],\; \mathsf{j} \in [1..n]))) \\ \mathsf{q3} = (\mathsf{q0} = \mathsf{q},\; \mathsf{q0}) = \mathsf{q0}) \\ \mathsf{q3} = (\mathsf{q0} = \mathsf{q0}) = \mathsf{q0} = \mathsf{q0}) \\ \mathsf{q3} = (\mathsf{q0} = \mathsf{q0}) = \mathsf{q0} = \mathsf{q0}) \\ \mathsf{q3} = (\mathsf{q0} = \mathsf{q0}) = \mathsf{q0}) = \mathsf{q0} = \mathsf{q0}) \\ \mathsf{q3} = (\mathsf{q0} = \mathsf{q0}) = \mathsf{q0}) 
     SET RCHD EXPECTED AS:
     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]))))
   SET RCHD AT:
    \begin{array}{l} \text{SEI} \text{ RCRD} \text{ Als} \\ \text{q1} = \neg (p0 = \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{ Fail }] -> \text{ q1} = \neg (p0 = \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{q1} = \neg (p0 = \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{ Repair }] -> \text{ q1} = \neg (p0 = \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{q1} = \neg (p0 = \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{ Tic }] -> \text{ q3} = (p0 = \text{local}) \\ \text{q1} = \neg (p0 = \text{h} = \text{local}), & \text{q2} = \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{ Tic }] -> \text{ q3} = (p0 = \text{local}) \\ \text{q2} = \neg (p0 = \text{local}), & \text{q3} = \text{q4} = \neg (p0 = \text{local}), & \text{q4} = \text{q4} = \text{q4} \\ \text{q4} = \text{q4} = \text{q4} = \text{q4} \\ \text{q4} = \text{q4} = \text{q4} = \text{q4} \\ \text{q4} = \text{q4} = \text{q4} = \text{q4} = \text{q4} \\ \text{q4} = \text{q4} = \text{q4} = \text{q4} = \text{q4} = \text{q4} \\ \text{q4} = \text{q4} = \text{q4} = \text{q4} = \text{q4} = \text{q4} = \text{q4} \\ \text{q4} = \text{q4} = \text{q4} = \text{q4} = \text{q4} = \text{q4} \\ \text{q4} = \text{q4}
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TIME_ATS: 00:00:00.858
TIME_TESTS: 00:00:00.000