

Results for CXP (in 00:00:00.610):

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: 6

TAU\_AT: 54.55

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: 21

NB\_CS\_RCHD: 5

NB\_CT: 16

NB\_CT\_RCHD: 6

RHO\_CS: 23.81

RHO\_CT: 37.50

NB\_TESTS: 2

NB\_STEPS: 8

TESTS:  
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 ]-> c2q3 = 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  
c2q3 = 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 ]-> c7q3 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=8, bat(8)=8, h=7, sw=1  
c7q3 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=8, bat(8)=8, h=7, sw=1 -[ Repair ]-> c2q3 = 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  
c2q3 = 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  
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 ]-> c2q3 = 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  
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c7q3 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=8, bat(8)=8, h=7, sw=1 -[ Tic ]-> c14q3 = bat(1)=9, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=8, bat(8)=8, h=6, sw=1  
#####  
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 -[ Tic ]-> c4q1 = 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=6, sw=1  
#####

SET\_EXPECTED\_AS:  
q1 =  $\neg(p0 = \exists(nb).(\text{and}(\text{and}(nb \in [1..n]), \text{and}(\text{bat}(nb)=ko[8]))))$ , (p1 =  $\exists(i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \text{and}(i \neq j, \text{bat}(i)=ok[9], \text{bat}(j)=ok[9])))$ )  
q2 = (p0 =  $\exists(nb).(\text{and}(\text{and}(nb \in [1..n]), \text{and}(\text{bat}(nb)=ko[8]))))$ ,  $\neg(p1 = \exists(i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \text{and}(i \neq j, \text{bat}(i)=ok[9], \text{bat}(j)=ok[9])))$ )  
q3 = (p0 =  $\exists(nb).(\text{and}(\text{and}(nb \in [1..n]), \text{and}(\text{bat}(nb)=ko[8]))))$ , (p1 =  $\exists(i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \text{and}(i \neq j, \text{bat}(i)=ok[9], \text{bat}(j)=ok[9])))$ )

SET\_RCHD\_AS:  
q1 =  $\neg(p0 = \exists(nb).(\text{and}(\text{and}(nb \in [1..n]), \text{and}(\text{bat}(nb)=ko[8]))))$ , (p1 =  $\exists(i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \text{and}(i \neq j, \text{bat}(i)=ok[9], \text{bat}(j)=ok[9])))$ )  
q3 = (p0 =  $\exists(nb).(\text{and}(\text{and}(nb \in [1..n]), \text{and}(\text{bat}(nb)=ko[8]))))$ , (p1 =  $\exists(i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \text{and}(i \neq j, \text{bat}(i)=ok[9], \text{bat}(j)=ok[9])))$ )

SET\_RCHD\_EXPECTED\_AS:  
q1 =  $\neg(p0 = \exists(nb).(\text{and}(\text{and}(nb \in [1..n]), \text{and}(\text{bat}(nb)=ko[8]))))$ , (p1 =  $\exists(i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \text{and}(i \neq j, \text{bat}(i)=ok[9], \text{bat}(j)=ok[9])))$ )  
q3 = (p0 =  $\exists(nb).(\text{and}(\text{and}(nb \in [1..n]), \text{and}(\text{bat}(nb)=ko[8]))))$ , (p1 =  $\exists(i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \text{and}(i \neq j, \text{bat}(i)=ok[9], \text{bat}(j)=ok[9])))$ )

SET\_EXPECTED\_AT:  
q2 = (p0 =  $\exists(nb).(\text{and}(\text{and}(nb \in [1..n]), \text{and}(\text{bat}(nb)=ko[8]))))$ ,  $\neg(p1 = \exists(i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \text{and}(i \neq j, \text{bat}(i)=ok[9], \text{bat}(j)=ok[9])))$ ) -[ Repair ]-> q3 = (p0 =  $\exists(nb).(\text{and}(\text{and}(nb \in [1..n]), \text{and}(\text{bat}(nb)=ko[8]))))$ , (p1 =  $\exists(i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \text{and}(i \neq j, \text{bat}(i)=ok[9], \text{bat}(j)=ok[9])))$ )  
q3 = (p0 =  $\exists(nb).(\text{and}(\text{and}(nb \in [1..n]), \text{and}(\text{bat}(nb)=ko[8]))))$ , (p1 =  $\exists(i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \text{and}(i \neq j, \text{bat}(i)=ok[9], \text{bat}(j)=ok[9])))$ ) -[ Fail ]-> q2 = (p0 =  $\exists(nb).(\text{and}(\text{and}(nb \in [1..n]), \text{and}(\text{bat}(nb)=ko[8]))))$ ,  $\neg(p1 = \exists(i, j).(\text{and}(\text{and}(i \in [1..n], j \in [1..n]), \text{and}(i \neq j, \text{bat}(i)=ok[9], \text{bat}(j)=ok[9])))$ )

