

NB STEPS: 62

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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 -[ Fail ]-> c24q3 = bat(1)=8, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=8, bat(8)=8, h=7, sw=5
c24q3 = bat(1)=8, bat(2)=9, bat(3)=9, bat(4)=9, bat(5)=9, bat(6)=9, bat(7)=8, bat(8)=8, h=7, sw=5 -[ Fail ]-> c25q3 = bat(1)=8, bat(2)=9

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SET_EXPECTED_AS:
q1 = ¬(p0 = ∃(nb).(and(and(nb ∈ [1..n]), and(bat(nb)=ko[8])))), (p1 = ∃(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))))
q2 = (p0 = ∃(nb).(and(and(nb ∈ [1..n]), and(bat(nb)=ko[8])))), ¬(p1 = ∃(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))))
q3 = (p0 = ∃(nb).(and(and(nb ∈ [1..n]), and(bat(nb)=ko[8])))), (p1 = ∃(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))))

SET_RCHD_AS:
q1 = ¬(p0 = ∃(nb).(and(and(nb ∈ [1..n]), and(bat(nb)=ko[8])))), (p1 = ∃(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))))
q2 = (p0 = ∃(nb).(and(and(nb ∈ [1..n]), and(bat(nb)=ko[8])))), ¬(p1 = ∃(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))))
q3 = (p0 = ∃(nb).(and(and(nb ∈ [1..n]), and(bat(nb)=ko[8])))), (p1 = ∃(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))))

SET_RCHD_EXPECTED_AS:
q1 = ¬(p0 = ∃(nb).(and(and(nb ∈ [1..n]), and(bat(nb)=ko[8])))), (p1 = ∃(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))))
q2 = (p0 = ∃(nb).(and(and(nb ∈ [1..n]), and(bat(nb)=ko[8])))), ¬(p1 = ∃(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))))
q3 = (p0 = ∃(nb).(and(and(nb ∈ [1..n]), and(bat(nb)=ko[8])))), (p1 = ∃(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))))

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q2 = (p0 =  $\exists$ (nb). $\wedge$ ( $\wedge$ (nb  $\in$  [1..n],  $\wedge$ (bat(nb)=ko[8]))),  $\neg$ (p1 =  $\exists$ (i, j). $\wedge$ ( $\wedge$ (i  $\in$  [1..n], j  $\in$  [1..n]),  $\wedge$ (i  $\neq$  j, bat(i)=ok[9], bat(j)=ok[9])))) -[ Repair ]-> q3 = (p0 =  $\exists$ (nb). $\wedge$ ( $\wedge$ (nb  $\in$  [1..n],  $\wedge$ (bat(nb)=ko[8]))), (p1 =  $\exists$ (i, j). $\wedge$ ( $\wedge$ (i  $\in$  [1..n], j  $\in$  [1..n]),  $\wedge$ (i  $\neq$  j, bat(i)=ok[9], bat(j)=ok[9]))))
q3 = (p0 =  $\exists$ (nb). $\wedge$ ( $\wedge$ (nb  $\in$  [1..n],  $\wedge$ (bat(nb)=ko[8]))), (p1 =  $\exists$ (i, j). $\wedge$ ( $\wedge$ (i  $\in$  [1..n], j  $\in$  [1..n]),  $\wedge$ (i  $\neq$  j, bat(i)=ok[9], bat(j)=ok[9])))) -[ Fail ]-> q2 = (p0 =  $\exists$ (nb). $\wedge$ ( $\wedge$ (nb  $\in$  [1..n],  $\wedge$ (bat(nb)=ko[8]))),  $\neg$ (p1 =  $\exists$ (i, j). $\wedge$ ( $\wedge$ (i  $\in$  [1..n], j  $\in$  [1..n]),  $\wedge$ (i  $\neq$  j, bat(i)=ok[9], bat(j)=ok[9]))))

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[illegible]

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q2 = (p0 = ∃(nb). (∧(and(nb ∈ [1..n], and(bat(nb)=ko[8]))), ¬(p1 = ∃(i, j). (∧(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))) - [ Repair ]-> q3 = (p0 = ∃(nb). (∧(and(nb ∈ [1..n], and(bat(nb)=ko[8]))), (p1 = ∃(i, j). (∧(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9]))))
q3 = (p0 = ∃(nb). (∧(and(nb ∈ [1..n], and(bat(nb)=ko[8]))), (p1 = ∃(i, j). (∧(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))) - [ Fail ]-> q2 = (p0 = ∃(nb). (∧(and(nb ∈ [1..n], and(bat(nb)=ko[8]))), ¬(p1 = ∃(i, j). (∧(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9]))))

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SET_UNRCHD_EXPECTED_AS:

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q1 = ¬(p0 = ∃(nb).(and(and(nb ∈ [1..n]), and(bat(nb)=ko[8])))), (p1 = ∃(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))) -[ Commute ]-> q1 = ¬(p0 = ∃(nb).(and(and(nb ∈ [1..n]), and(bat(nb)=ko[8])))), (p1 = ∃(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9]))))
q3 = (p0 = ∃(nb).(and(and(nb ∈ [1..n]), and(bat(nb)=ko[8])))), (p1 = ∃(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9])))) -[ Commute ]-> q3 = (p0 = ∃(nb).(and(and(nb ∈ [1..n]), and(bat(nb)=ko[8])))), (p1 = ∃(i, j).(and(and(i ∈ [1..n], j ∈ [1..n]), and(i ≠ j, bat(i)=ok[9], bat(j)=ok[9]))))

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TIME_ATS: 00:00:10.497

TIME_TESTS: 00:00:00.003