

```

Remove["Global`*"]

<< "/media/ldebsao5/USB-HDD/Logik/Nakano/KromHornSolver.wl";
<< "/home/ldebbserv1/Nakano/STM/github/KromHornSolver.wl";

In[15]:= STM1 = {{P, P1, P2, P3, P4, H}, {1, 2, 3, 4}, {
  {P, 1, {W, 2}, P1},
  {P, 2, {R}, P},
  {P, 3, {R}, P4},
  {P, 4, {W, 4}, H},
  {P1, 1, {R}, P1},
  {P1, 2, {R}, P1},
  {P1, 3, {R}, P},
  {P1, 4, {R}, P},
  {P4, 1, {R}, P4},
  {P4, 2, {W, 1}, P4},
  {P4, 3, {R}, P2},
  {P4, 4, {R}, P4},
  {P2, 1, {R}, P2},
  {P2, 4, {R}, P3},
  {P3, 1, {S}, P},
  {P2, 2, {W, 1}, H},
  {P2, 3, {R}, H},
  {P3, 2, {S}, H},
  {P3, 3, {R}, H},
  {P3, 4, {W, 1}, H}
}, P, H, {1, 3, 1, 1, 4}};

(*It works as follows. Its tape starts with a
number a written in unary form (ex. 5 is written as 11111),
followed by an "A", followed by a number b written in unary form,
followed by a "B". It compares the numbers a and b; if a<=b,
it increments a and goes to the beginning to make a new comparison again,
otherwise it halts.*)

```

In[16]:= Timing[proofCheck[STM1, 660]]

STM halts.

The evolution of the STM up to 165 steps as array:

P	1	3	1	1	4
P1	2	3	1	1	4
P1	3	1	1	4	2
P	1	1	4	2	3
P1	2	1	4	2	3
P1	1	4	2	3	2

P1	4	2	3	2	1		
P	2	3	2	1	4		
P	3	2	1	4	2		
P4	2	1	4	2	3		
P4	1	1	4	2	3		
P4	1	4	2	3	1		
P4	4	2	3	1	1		
P4	2	3	1	1	4		
P4	1	3	1	1	4		
P4	3	1	1	4	1		
P2	1	1	4	1	3		
P2	1	4	1	3	1		
P2	4	1	3	1	1		
P3	1	3	1	1	4		
P	1	1	3	1	1	4	
P1	2	1	3	1	1	4	
P1	1	3	1	1	4	2	
P1	3	1	1	4	2	1	
P	1	1	4	2	1	3	
P1	2	1	4	2	1	3	
P1	1	4	2	1	3	2	
P1	4	2	1	3	2	1	
P	2	1	3	2	1	4	
P	1	3	2	1	4	2	
P1	2	3	2	1	4	2	
P1	3	2	1	4	2	2	
P	2	1	4	2	2	3	
P	1	4	2	2	3	2	
P1	2	4	2	2	3	2	
P1	4	2	2	3	2	2	
P	2	2	3	2	2	4	
P	2	3	2	2	4	2	
P	3	2	2	4	2	2	
P4	2	2	4	2	2	3	
P4	1	2	4	2	2	3	
P4	2	4	2	2	3	1	
P4	1	4	2	2	3	1	
P4	4	2	2	3	1	1	
P4	2	2	3	1	1	4	
P4	1	2	3	1	1	4	
P4	2	3	1	1	4	1	
P4	1	3	1	1	4	1	
P4	3	1	1	4	1	1	
P2	1	1	4	1	1	3	
P2	1	4	1	1	3	1	
P2	4	1	1	3	1	1	
P3	1	1	3	1	1	4	
P	1	1	1	3	1	1	4
P1	2	1	1	3	1	1	4
P1	1	1	3	1	1	4	2
P1	1	3	1	1	4	2	1
P1	3	1	1	4	2	1	1

P	1	1	4	2	1	1	3
P1	2	1	4	2	1	1	3
P1	1	4	2	1	1	3	2
P1	4	2	1	1	3	2	1
P	2	1	1	3	2	1	4
P	1	1	3	2	1	4	2
P1	2	1	3	2	1	4	2
P1	1	3	2	1	4	2	2
P1	3	2	1	4	2	2	1
P	2	1	4	2	2	1	3
P	1	4	2	2	1	3	2
P1	2	4	2	2	1	3	2
P1	4	2	2	1	3	2	2
P	2	2	1	3	2	2	4
P	2	1	3	2	2	4	2
P	1	3	2	2	4	2	2
P1	2	3	2	2	4	2	2
P1	3	2	2	4	2	2	2
P	2	2	4	2	2	2	3
P	2	4	2	2	2	3	2
P	4	2	2	2	3	2	2
H	4	2	2	2	3	2	2

The evolution of the STM up to 165 steps as color diagram:

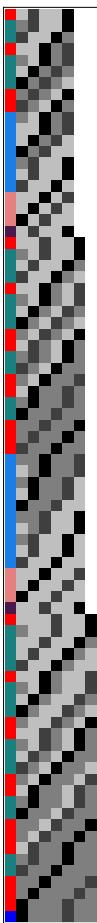
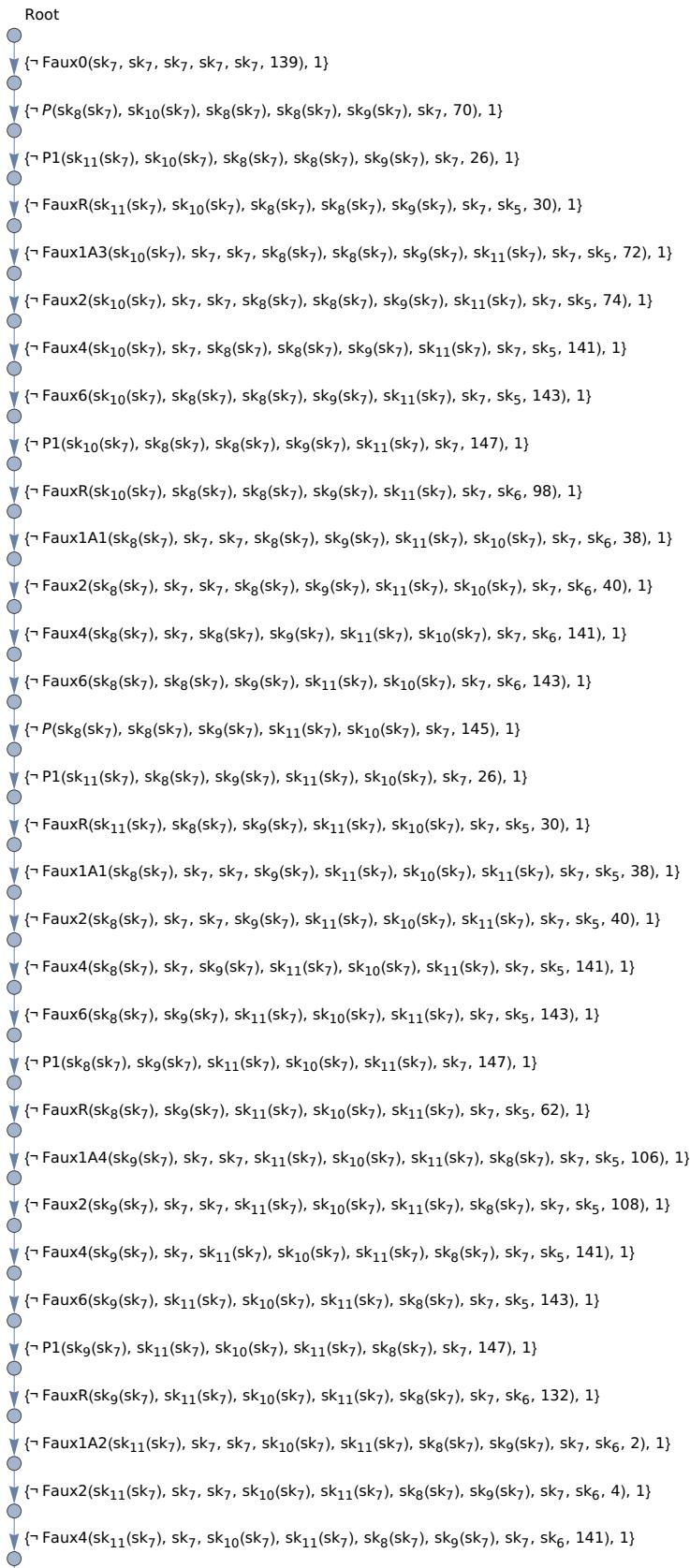
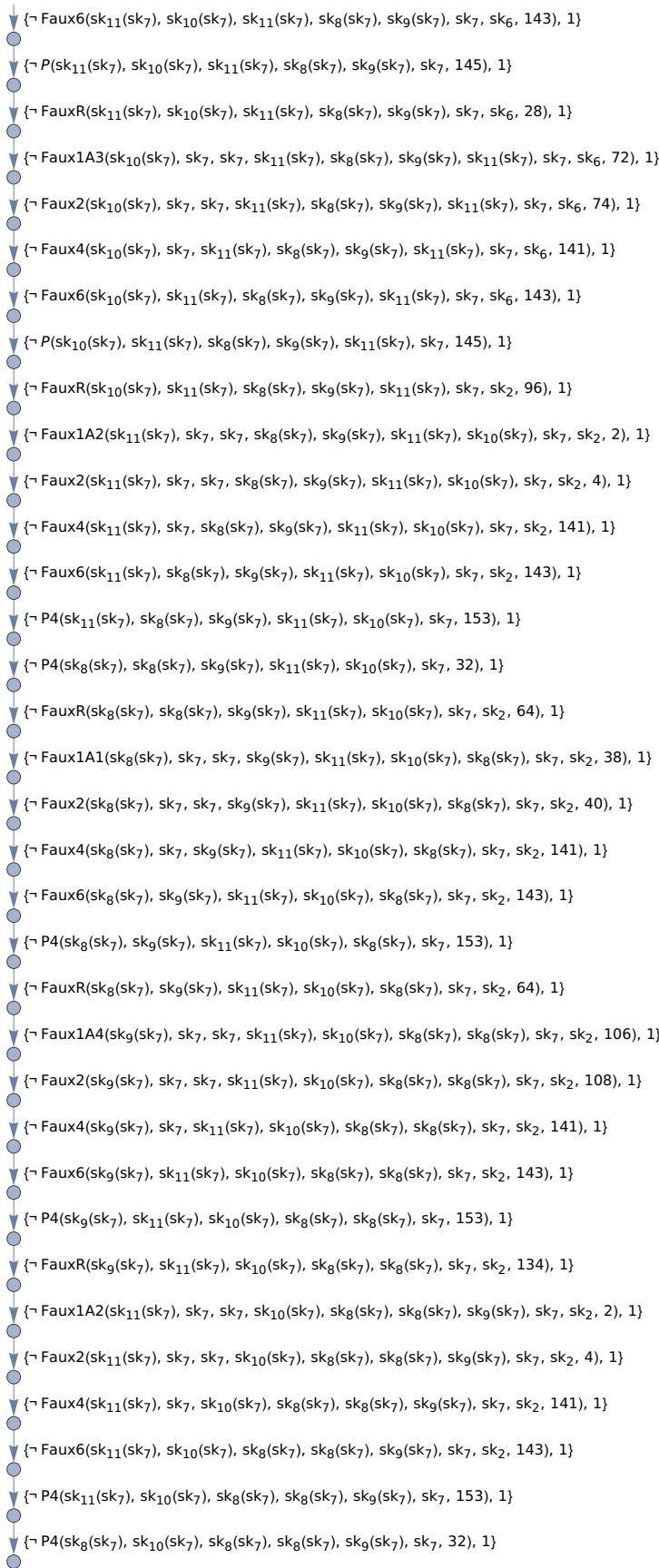
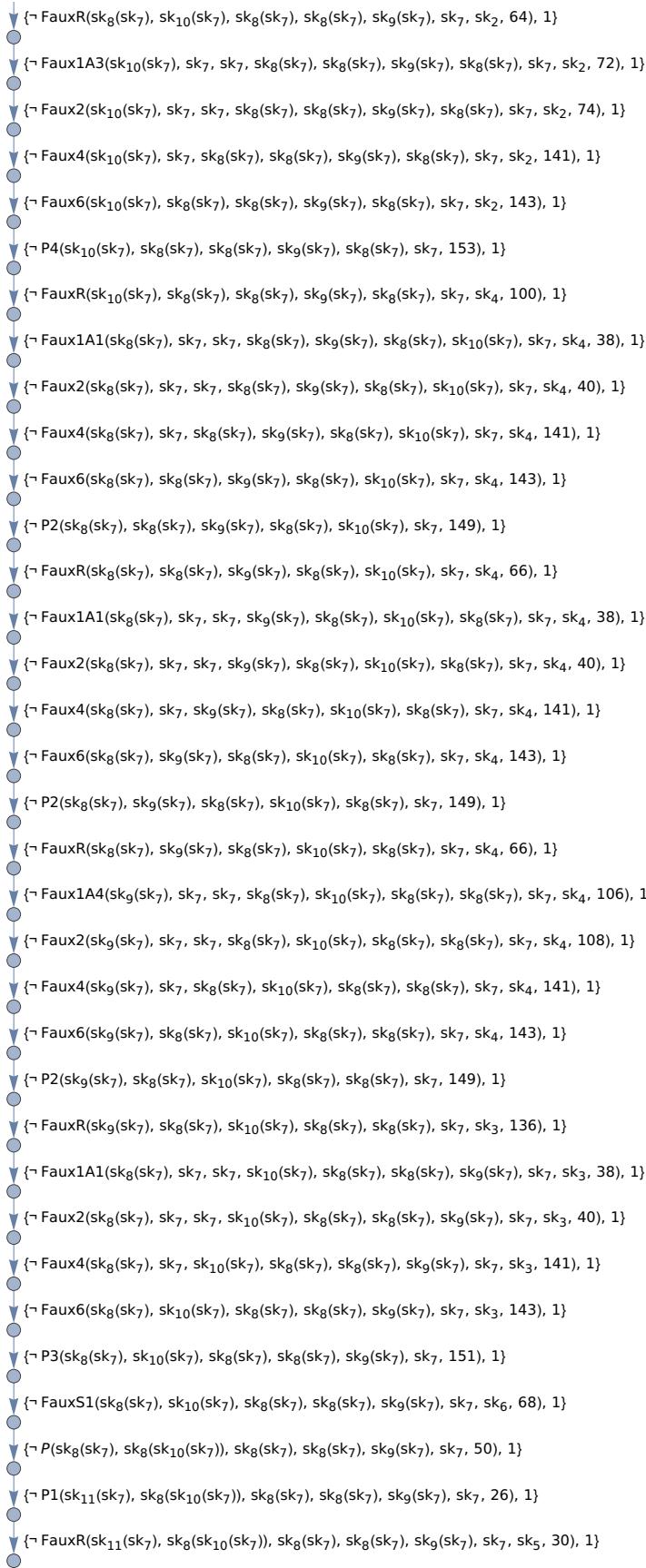
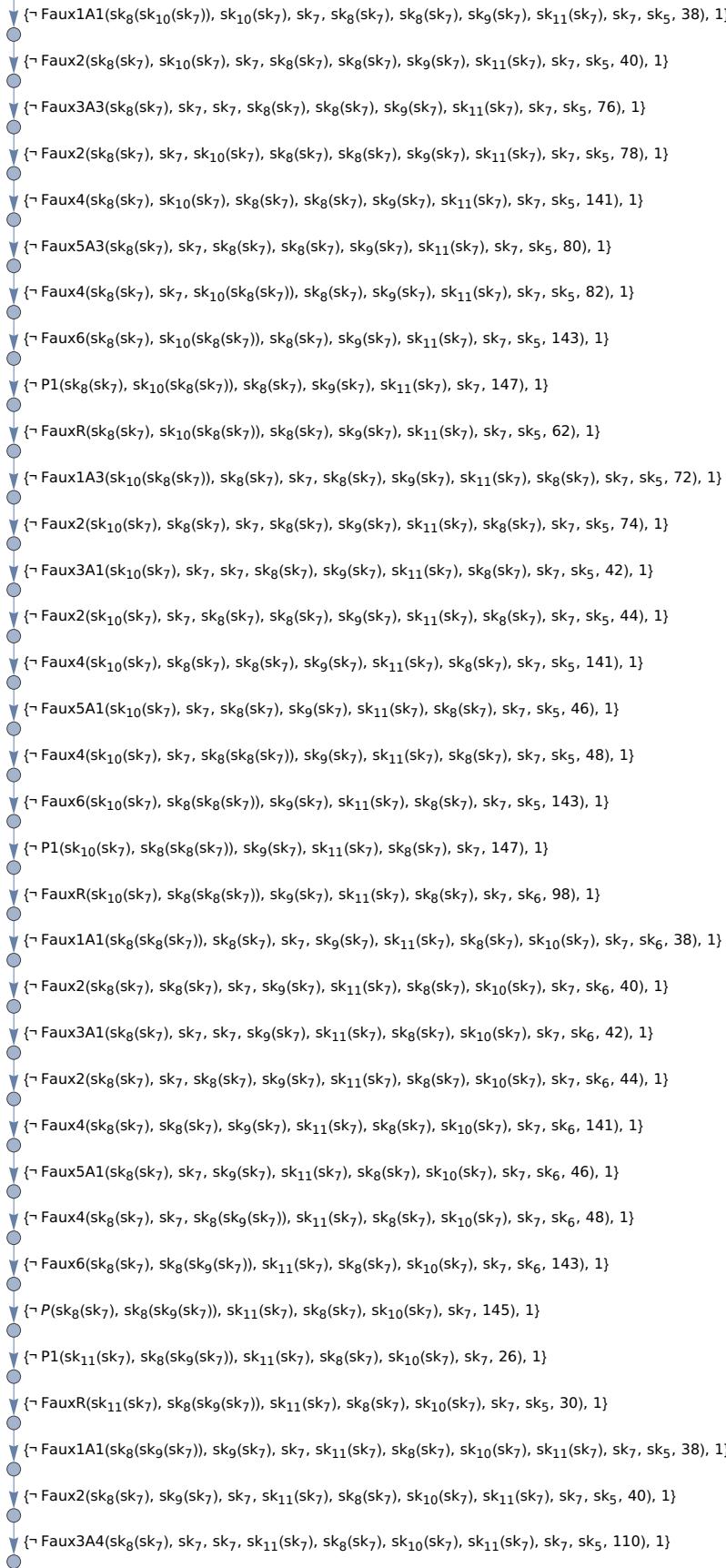


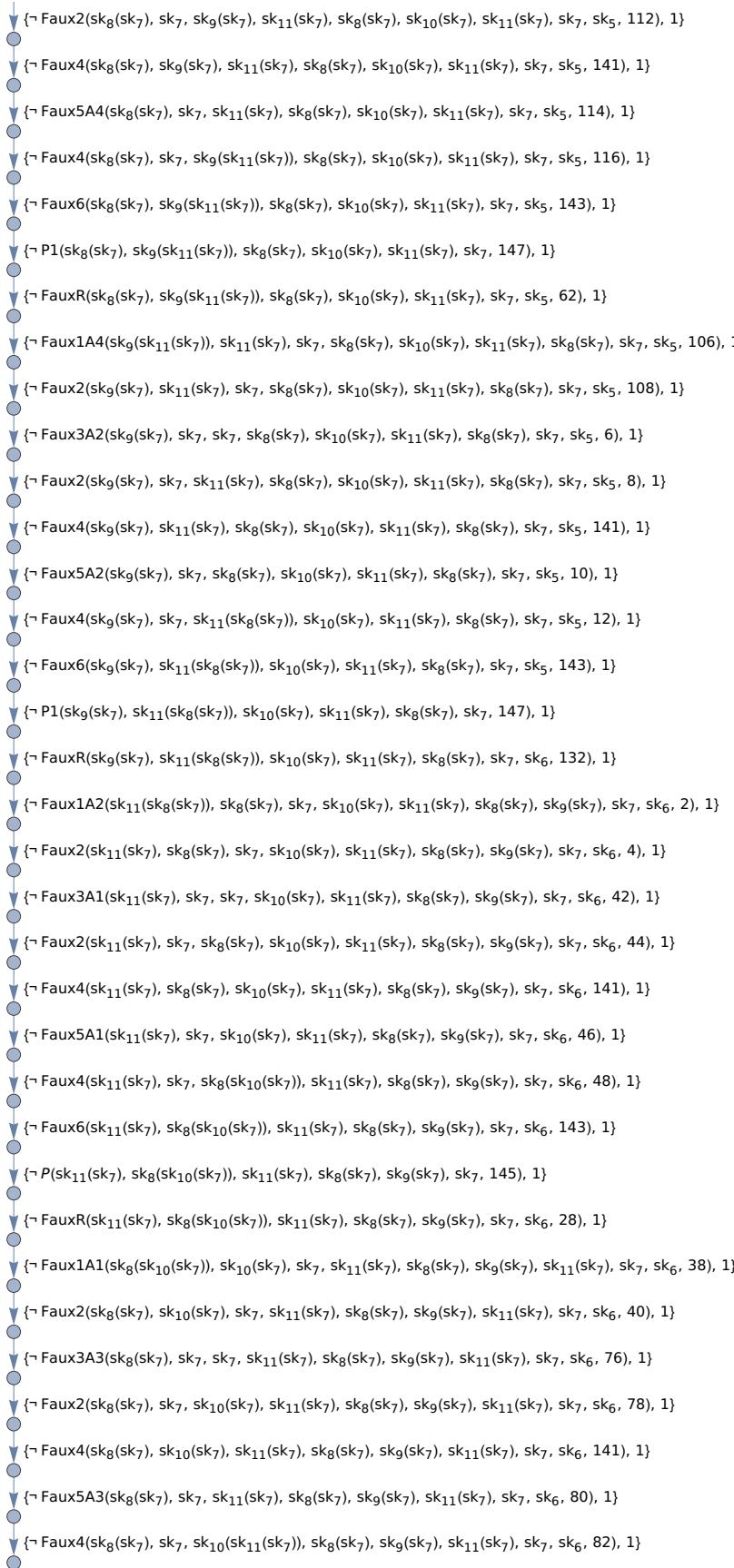
Tableau proof found after 634 steps. Main branch:

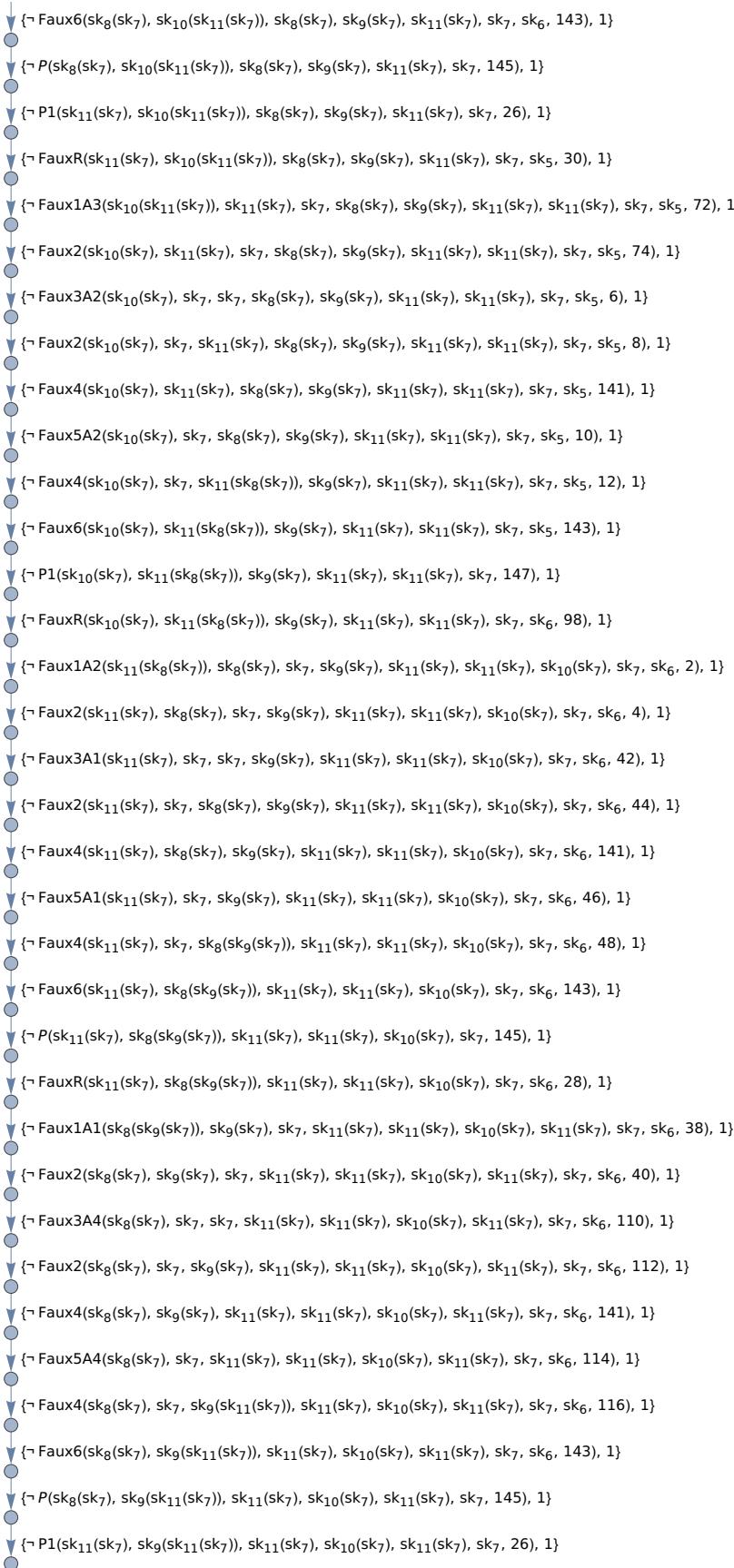




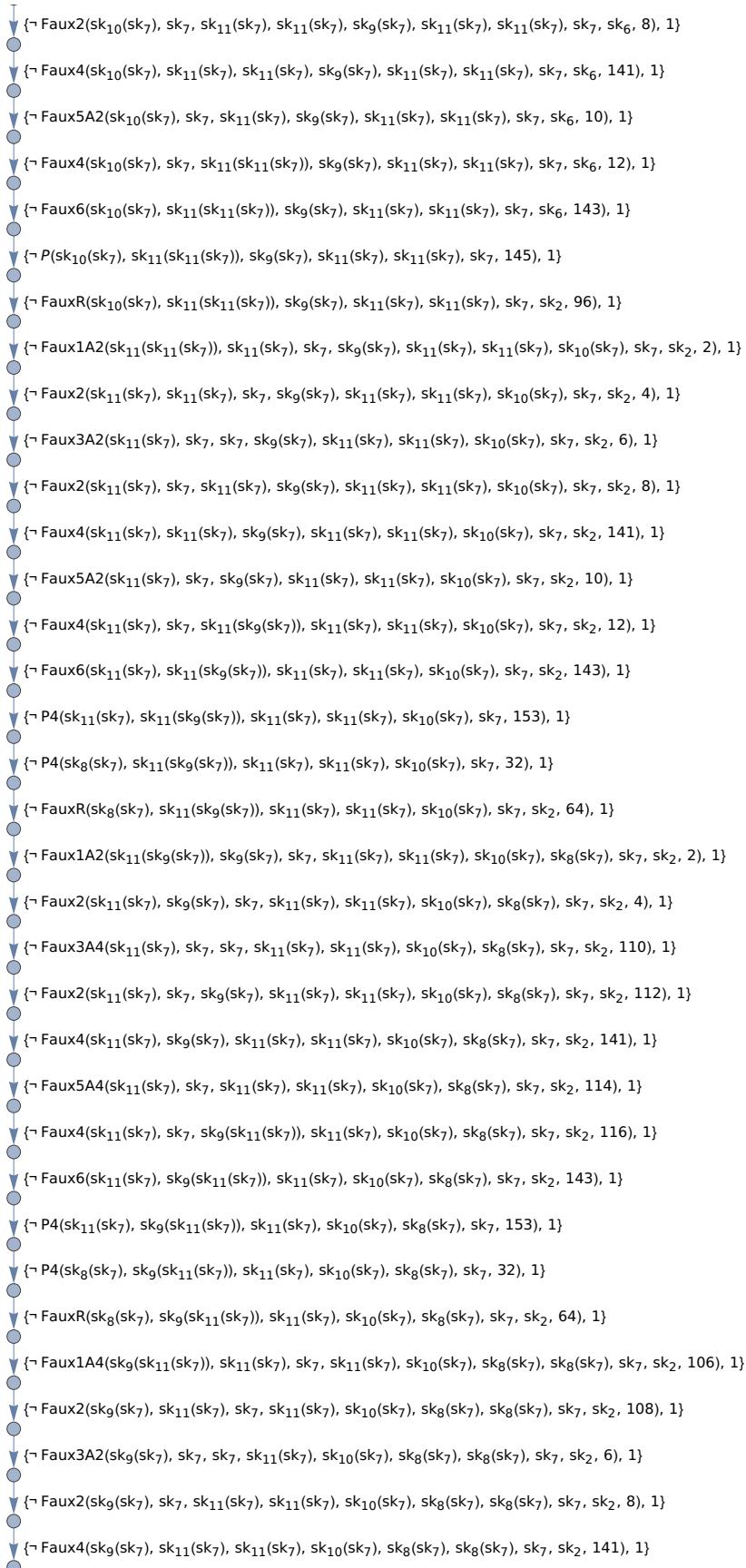


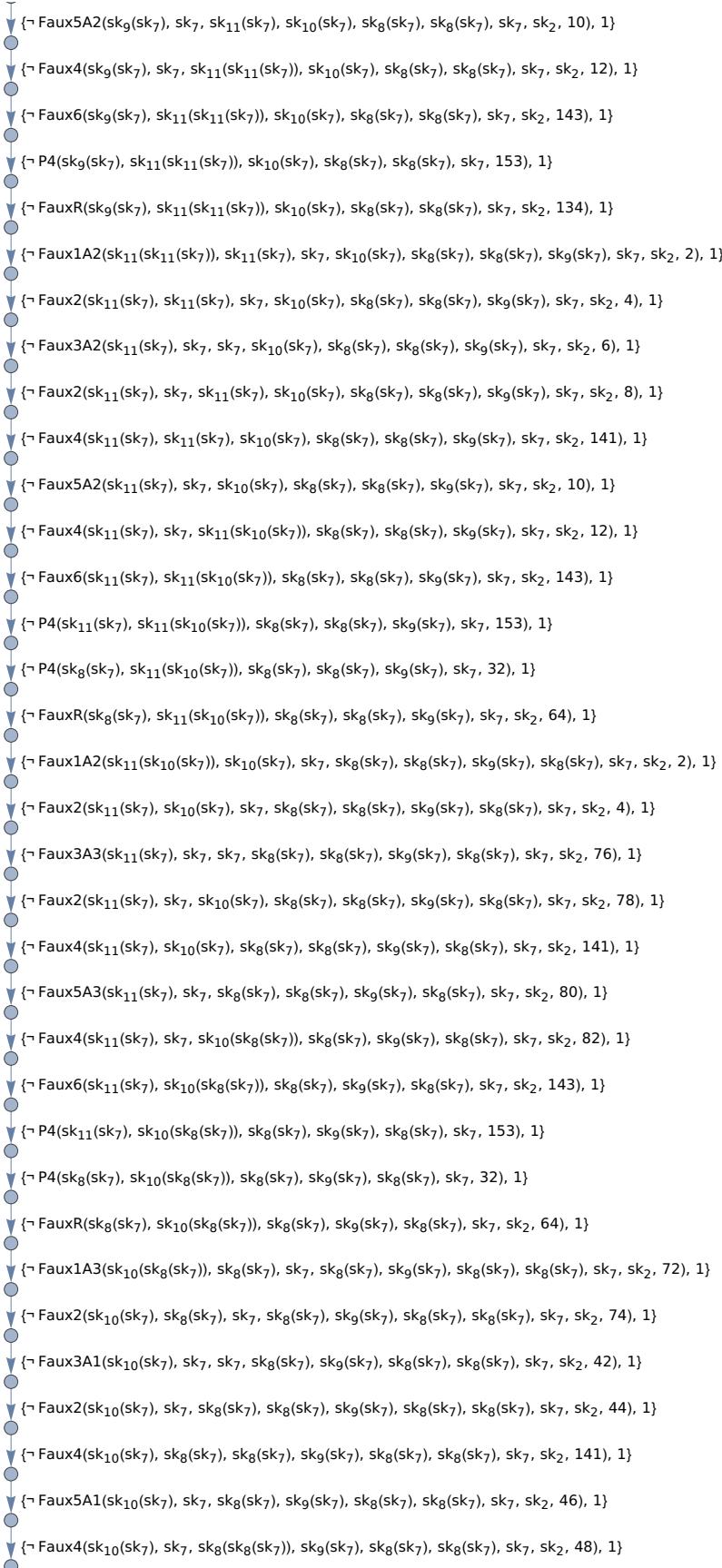


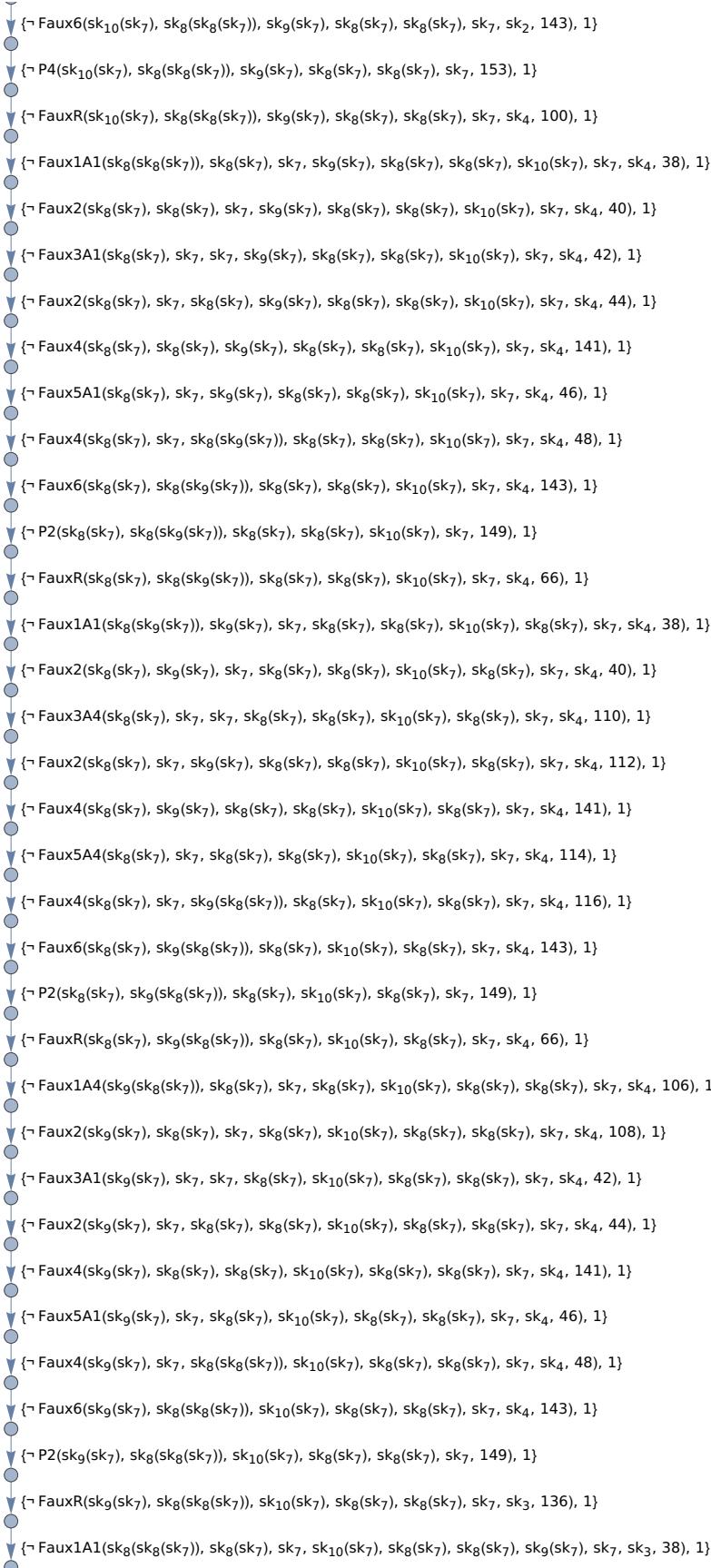


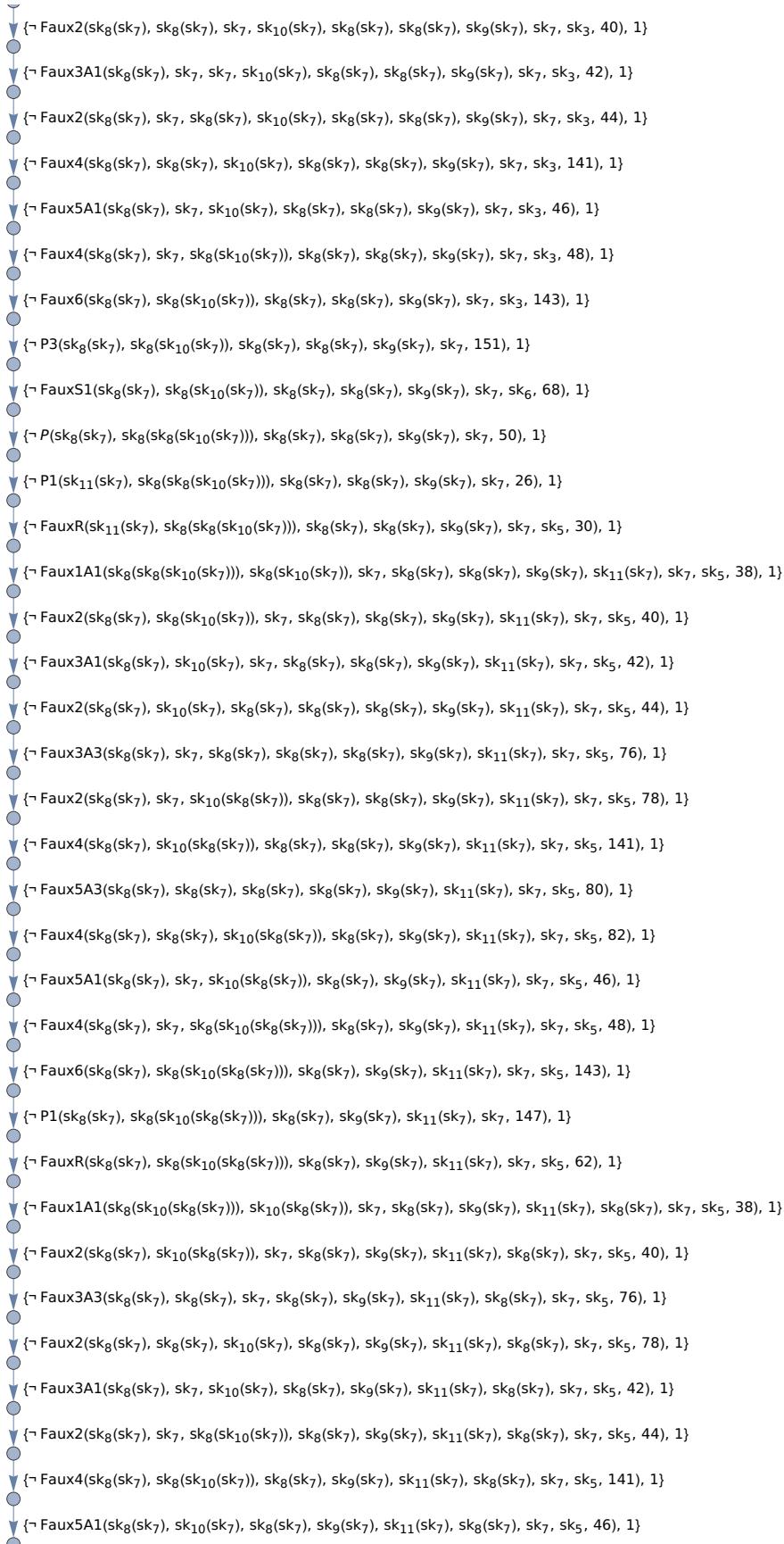




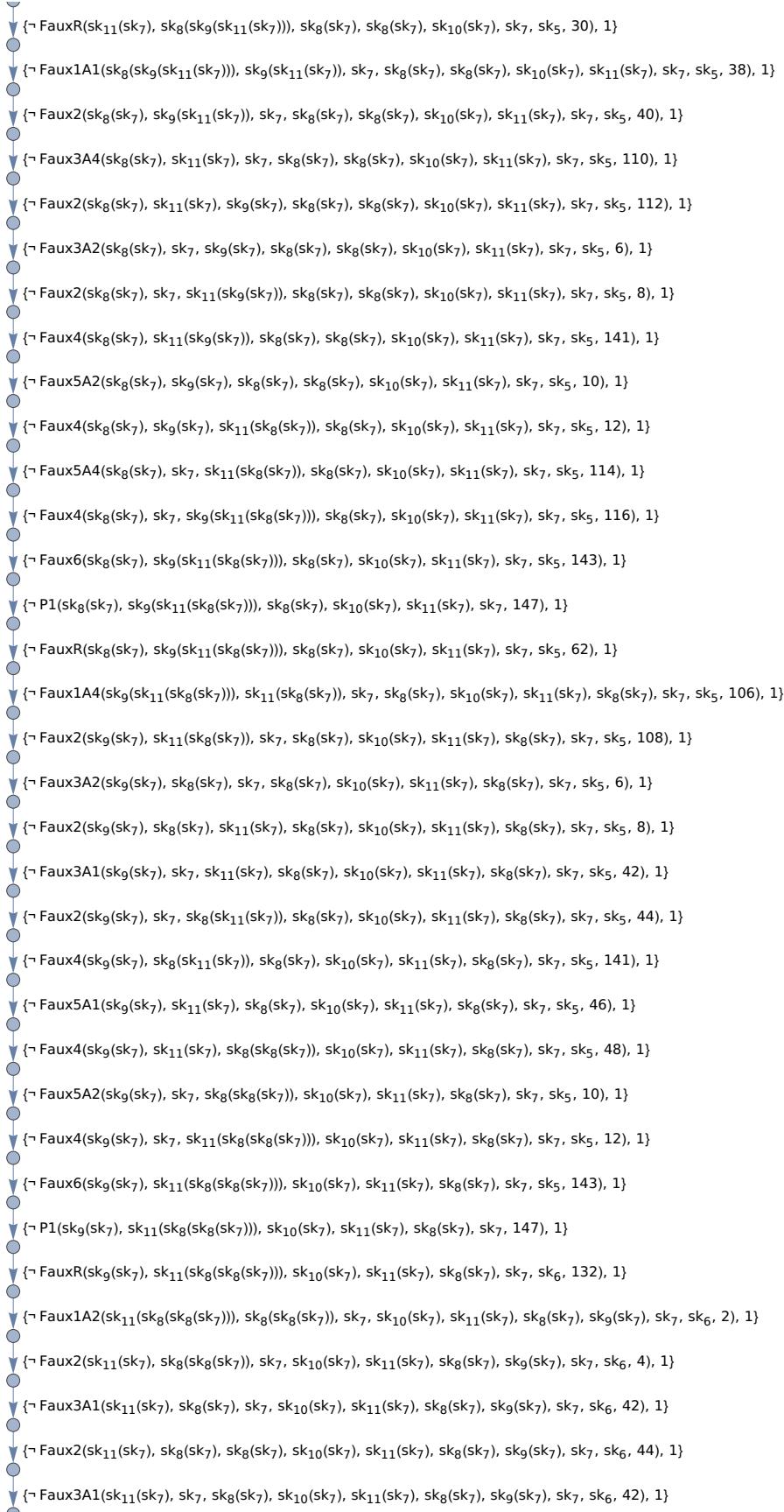


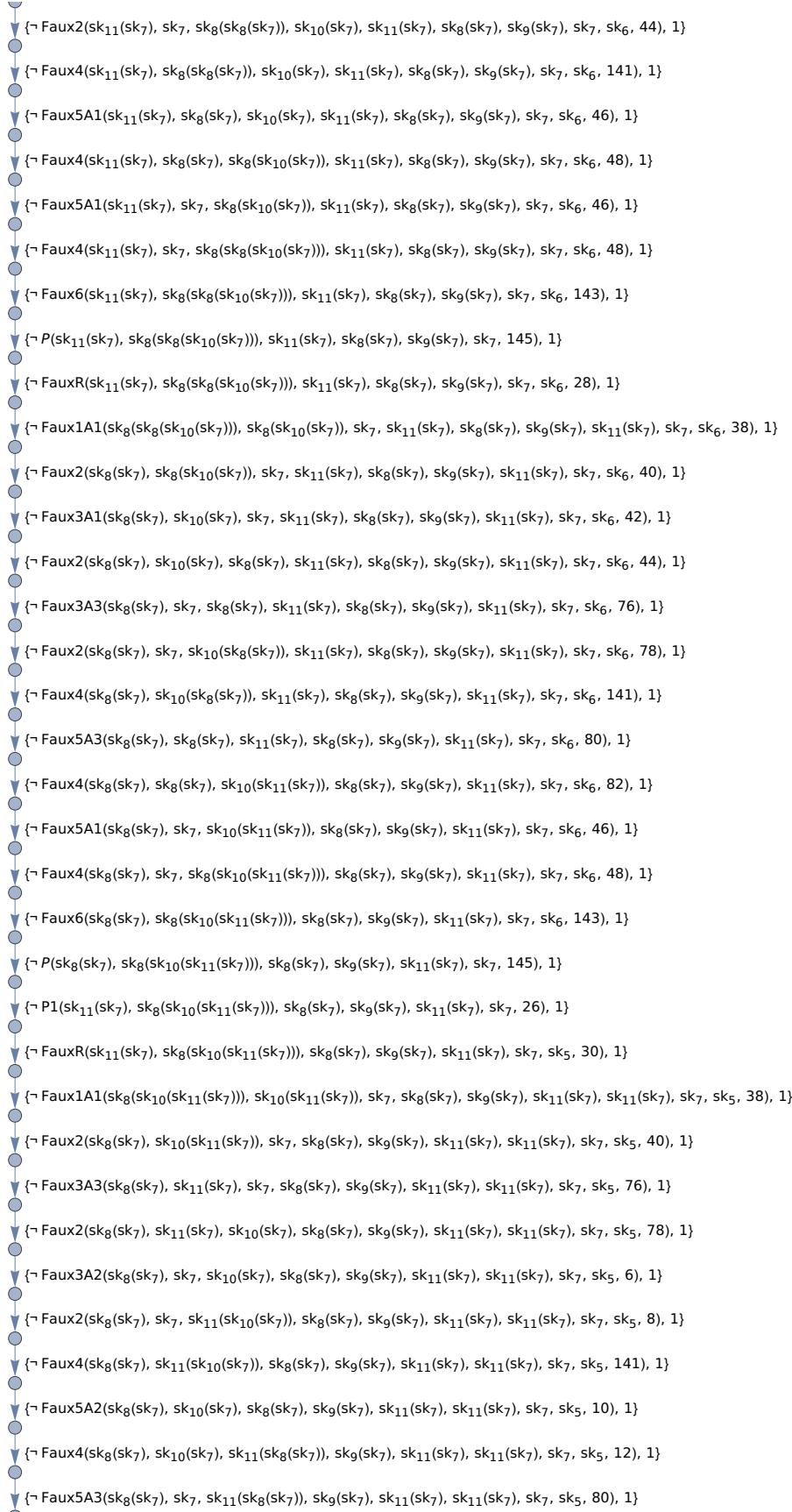


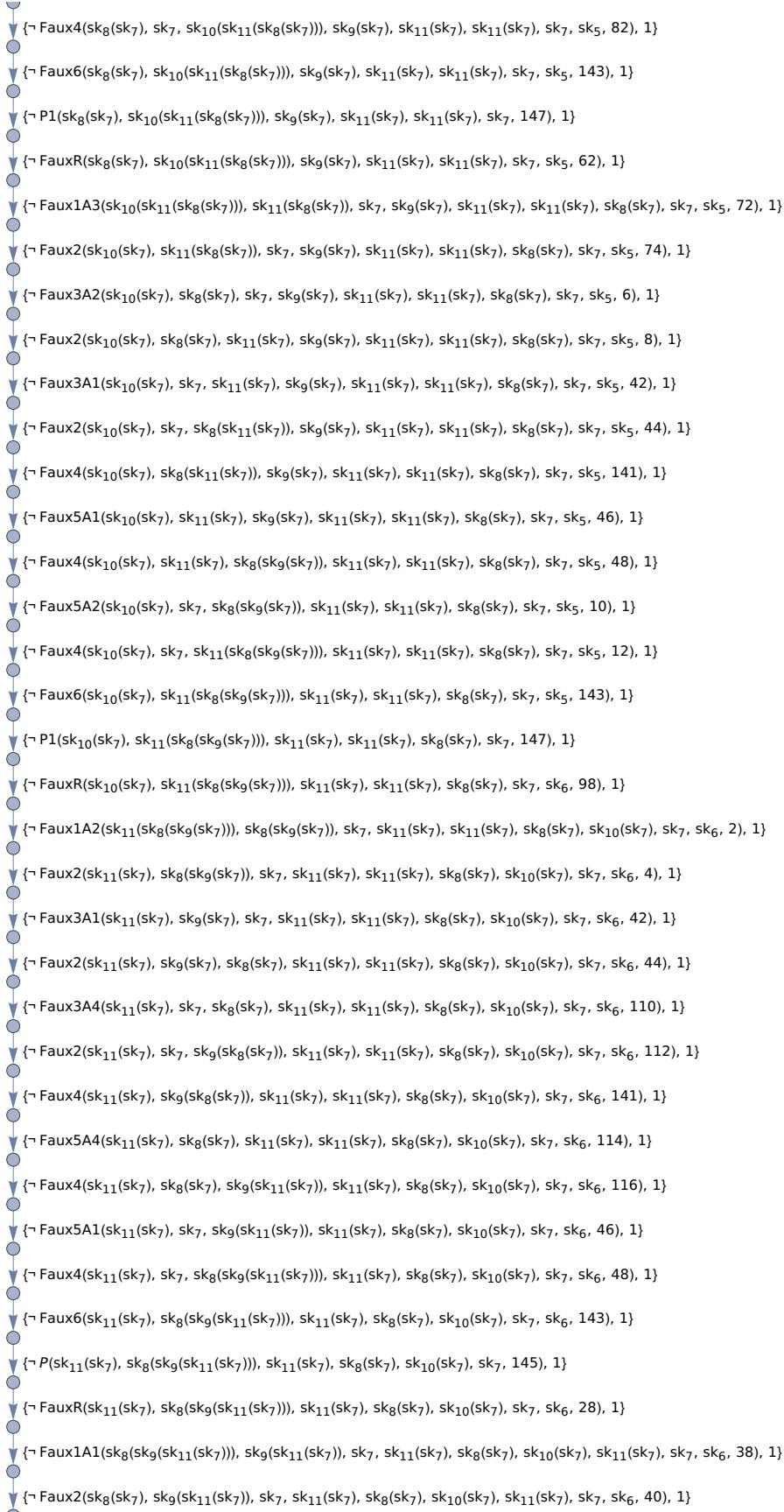






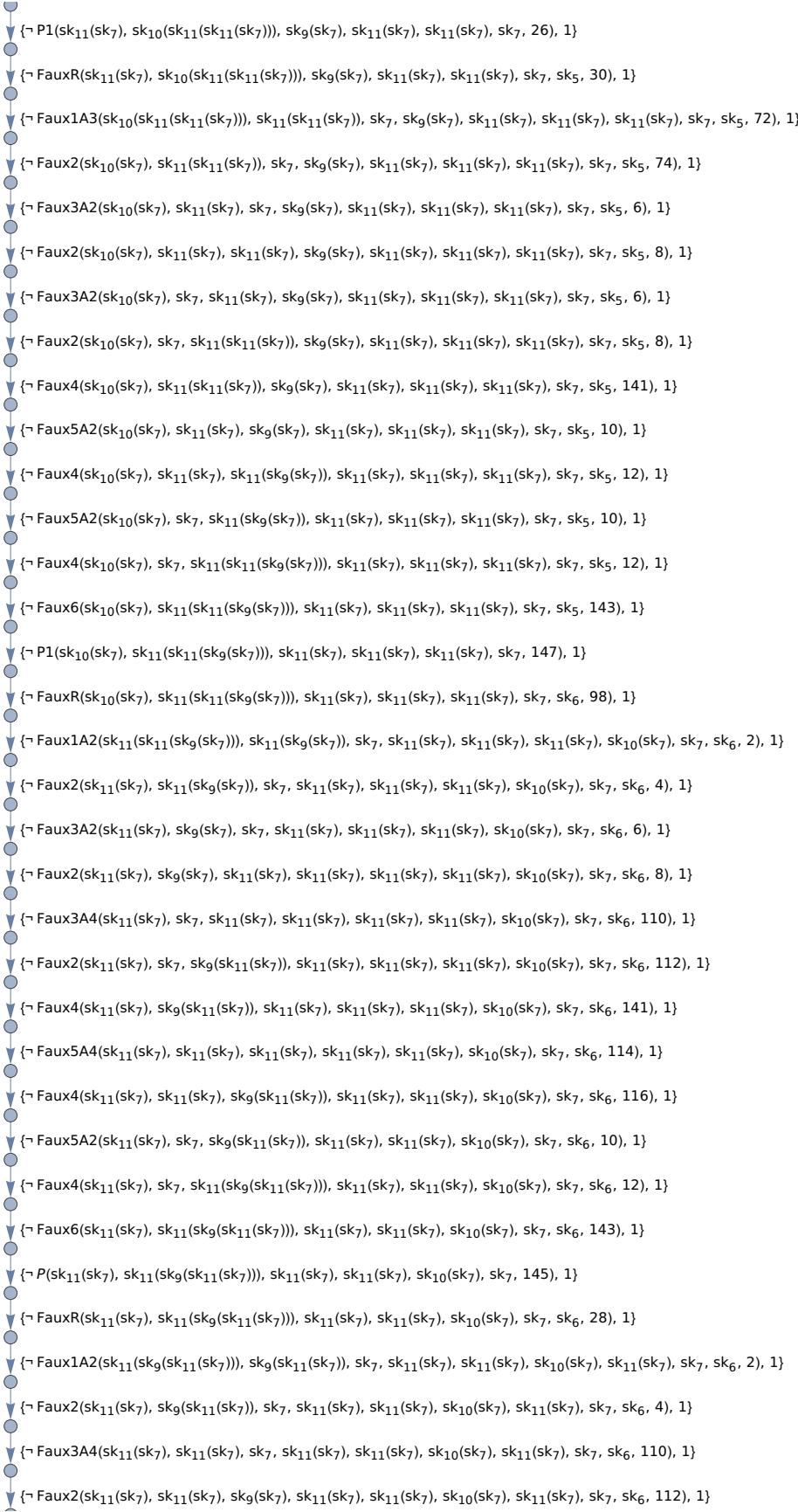


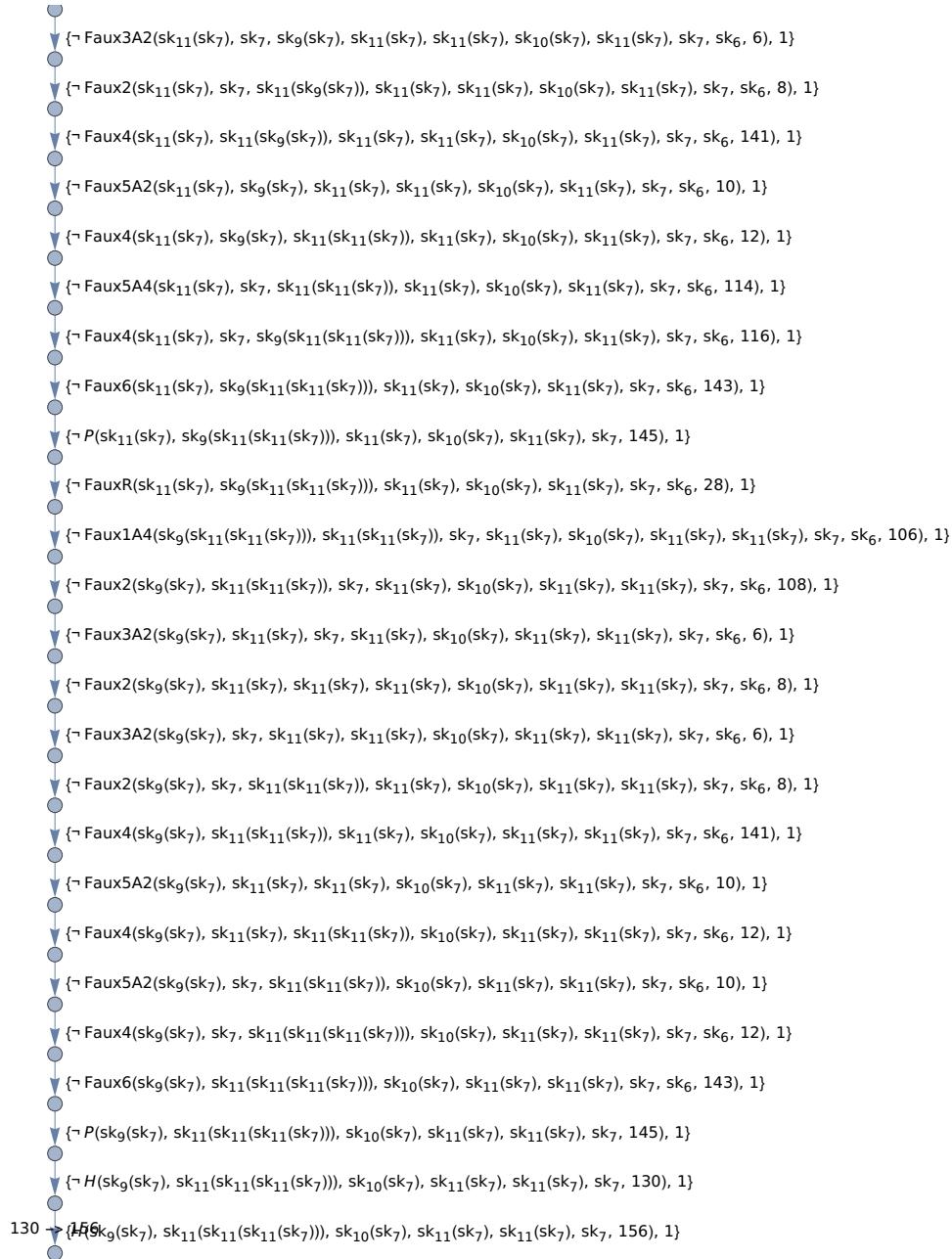




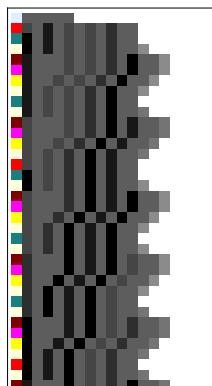


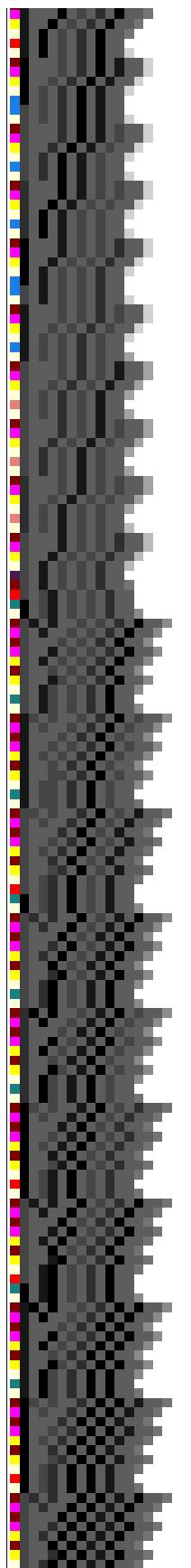


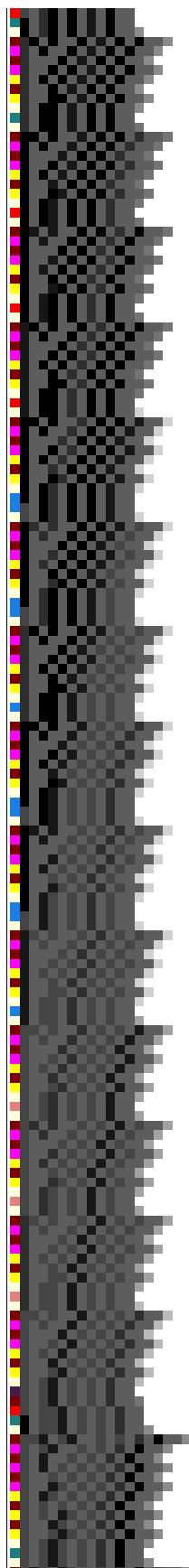


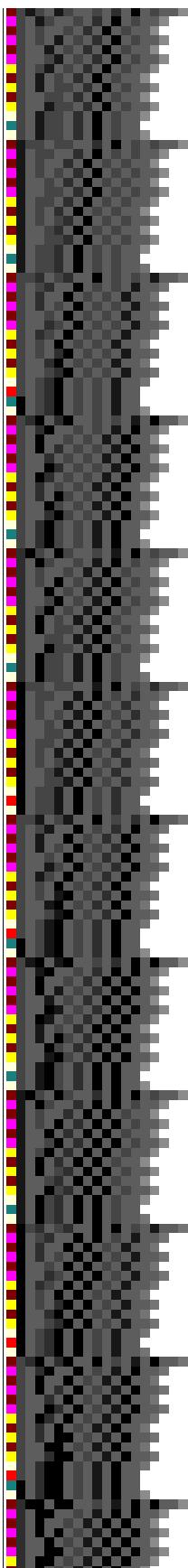


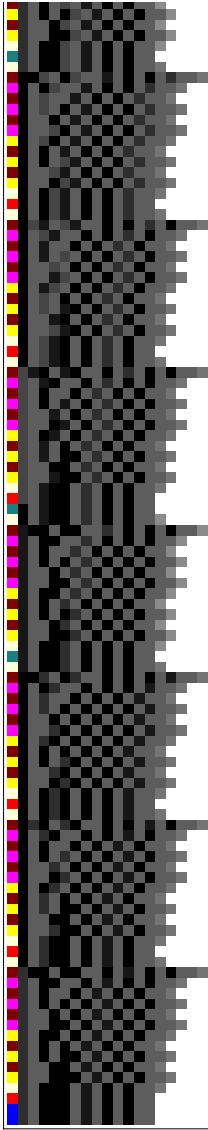
The evolution of the main branch in tableau up to 660 steps as color diagram:











Final expression of the proof search in the NNF-calculus:

$$\begin{aligned}
 & \exists_{\{y(2), y(3), y(4), y(5), y(6), y(7)\}} (\forall_{x(1,1)} \exists_{\{y(8,1), y(9,1), y(10,1), y(11,1)\}} (\{\{Faux0(\text{True}, x(1,1), x(1,1), x(1,1), \\
 & \quad x(1,1), x(1,1), 69), Faux0(\text{True}, y(7), y(7), y(7), y(7), 1)\} \vee \\
 & \quad \{P(\text{False}, y(8,1), y(10,1), y(8,1), y(8,1), y(9,1), y(7), 70), \\
 & \quad P(\text{False}, y(8,1), y(10,1), y(8,1), y(8,1), y(9,1), y(7), 2)\}\} \wedge \\
 & \forall_{\{x(23,1,1), x(100,1,1), x(177,1,1), x(254,1,1), x(331,1,1)\}} (\{P(\text{True}, y(8,1), x(331,1,1), \\
 & \quad x(254,1,1), x(177,1,1), x(100,1,1), x(23,1,1), 25), \\
 & \quad P(\text{True}, y(8,1), y(10,1), y(8,1), y(8,1), y(9,1), y(7), 2)\} \vee \{P1(\text{False}, \\
 & \quad y(11,1), x(331,1,1), x(254,1,1), x(177,1,1), x(100,1,1), x(23,1,1), 26), \\
 & \quad P1(\text{False}, y(11,1), y(10,1), y(8,1), y(8,1), y(9,1), y(7), 3)\}) \wedge \\
 & \forall_{\{x(25,1,1), x(102,1,1), x(179,1,1), x(256,1,1), x(333,1,1)\}} (\{P1(\text{True}, y(11,1), x(333,1,1), \\
 & \quad x(256,1,1), x(179,1,1), x(102,1,1), x(25,1,1), 29), P1(\text{True}, y(11,1), \\
 & \quad y(10,1), y(8,1), y(8,1), y(9,1), y(7), 3)\} \vee \{FauxR(\text{False}, y(11,1), \\
 & \quad x(333,1,1), x(256,1,1), x(179,1,1), x(102,1,1), x(25,1,1), y(5), 30),
 \end{aligned}$$

$$\begin{aligned}
& \text{FauxR(False, } y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(5), 4)\}) \wedge \\
& \forall_{\{x(45, 1, 1), x(122, 1, 1), x(199, 1, 1), x(276, 1, 1), x(353, 1, 1), x(407, 1, 1)\}} \{ \text{FauxR(True, } x(407, 1, 1), \\
& y(10, 1), x(353, 1, 1), x(276, 1, 1), x(199, 1, 1), x(122, 1, 1), x(45, 1, 1), 71), \\
& \text{FauxR(True, } y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(5), 4)\} \vee \\
& \{ \text{Faux1A3(False, } y(10, 1), x(1, 1), y(7), x(353, 1, 1), x(276, 1, 1), \\
& x(199, 1, 1), x(407, 1, 1), x(122, 1, 1), x(45, 1, 1), 72), \text{Faux1A3(False, } \\
& y(10, 1), y(7), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 5)\} \} \wedge \\
& \forall_{\{x(46, 1, 1), x(123, 1, 1), x(200, 1, 1), x(277, 1, 1), x(354, 1, 1), x(408, 1, 1), x(431, 1, 1), x(448, 1, 1)\}} \{ \text{Faux1A3(} \\
& \text{True, } x(448, 1, 1), x(431, 1, 1), x(408, 1, 1), x(354, 1, 1), x(277, 1, 1), \\
& x(200, 1, 1), x(123, 1, 1), x(1, 1), x(46, 1, 1), 73), \text{Faux1A3(True, } \\
& y(10, 1), y(7), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 5)\} \vee \\
& \{ \text{Faux2(False, } y(10, 1), x(431, 1, 1), x(408, 1, 1), x(354, 1, 1), x(277, 1, 1), \\
& x(200, 1, 1), x(123, 1, 1), x(1, 1), x(46, 1, 1), 74), \text{Faux2(False, } \\
& y(10, 1), y(7), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 6)\} \} \wedge \\
& \forall_{\{x(58, 1, 1), x(135, 1, 1), x(212, 1, 1), x(289, 1, 1), x(366, 1, 1)\}} \{ \text{P1(True, } y(10, 1), x(366, 1, 1), \\
& x(289, 1, 1), x(212, 1, 1), x(135, 1, 1), x(58, 1, 1), 97), \text{P1(True, } y(10, 1), \\
& y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), 9)\} \vee \{ \text{FauxR(False, } y(10, 1), \\
& x(366, 1, 1), x(289, 1, 1), x(212, 1, 1), x(135, 1, 1), x(58, 1, 1), y(6), 98), \\
& \text{FauxR(False, } y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 10)\} \} \wedge \\
& \forall_{\{x(29, 1, 1), x(106, 1, 1), x(183, 1, 1), x(260, 1, 1), x(337, 1, 1), x(401, 1, 1)\}} \{ \text{FauxR(True, } x(401, 1, 1), \\
& y(8, 1), x(337, 1, 1), x(260, 1, 1), x(183, 1, 1), x(106, 1, 1), x(29, 1, 1), 37), \\
& \text{FauxR(True, } y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 10)\} \vee \\
& \{ \text{Faux1A1(False, } y(8, 1), x(1, 1), y(7), x(337, 1, 1), x(260, 1, 1), \\
& x(183, 1, 1), x(401, 1, 1), x(106, 1, 1), x(29, 1, 1), 38), \text{Faux1A1(False, } \\
& y(8, 1), y(7), y(7), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(6), 11)\} \wedge \\
& \forall_{\{x(30, 1, 1), x(107, 1, 1), x(184, 1, 1), x(261, 1, 1), x(338, 1, 1), x(402, 1, 1), x(426, 1, 1), x(445, 1, 1)\}} \{ \text{Faux1A1(} \\
& \text{True, } x(445, 1, 1), x(426, 1, 1), x(402, 1, 1), x(338, 1, 1), x(261, 1, 1), \\
& x(184, 1, 1), x(107, 1, 1), x(1, 1), x(30, 1, 1), 39), \text{Faux1A1(True, } \\
& y(8, 1), y(7), y(7), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(6), 11)\} \vee \\
& \{ \text{Faux2(False, } y(8, 1), x(426, 1, 1), x(402, 1, 1), x(338, 1, 1), x(261, 1, 1), \\
& x(184, 1, 1), x(107, 1, 1), x(1, 1), x(30, 1, 1), 40), \text{Faux2(False, } \\
& y(8, 1), y(7), y(7), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(6), 12)\} \} \wedge \\
& \forall_{\{x(23, 1, 2), x(100, 1, 2), x(177, 1, 2), x(254, 1, 2), x(331, 1, 2)\}} \{ \text{P(True, } y(8, 1), x(331, 1, 2), \\
& x(254, 1, 2), x(177, 1, 2), x(100, 1, 2), x(23, 1, 2), 25), \\
& \text{P(True, } y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), 15)\} \vee \{ \text{P1(False, } \\
& y(11, 1), x(331, 1, 2), x(254, 1, 2), x(177, 1, 2), x(100, 1, 2), x(23, 1, 2), 26), \\
& \text{P1(False, } y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), 16)\} \} \wedge \\
& \forall_{\{x(25, 1, 2), x(102, 1, 2), x(179, 1, 2), x(256, 1, 2), x(333, 1, 2)\}} \{ \text{P1(True, } y(11, 1), x(333, 1, 2), \\
& x(256, 1, 2), x(179, 1, 2), x(102, 1, 2), x(25, 1, 2), 29), \text{P1(True, } y(11, 1), \\
& y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), 16)\} \vee \{ \text{FauxR(False, } y(11, 1), \\
& x(333, 1, 2), x(256, 1, 2), x(179, 1, 2), x(102, 1, 2), x(25, 1, 2), y(5), 30), \\
& \text{FauxR(False, } y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(5), 17)\} \} \wedge
\end{aligned}$$

$$\begin{aligned}
& \forall_{\{x(29,1,2), x(106,1,2), x(183,1,2), x(260,1,2), x(337,1,2), x(401,1,2)\}} (\{FauxR(True, x(401, 1, 2), \\
& \quad y(8, 1), x(337, 1, 2), x(260, 1, 2), x(183, 1, 2), x(106, 1, 2), x(29, 1, 2), 37), \\
& \quad FauxR(True, y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(5), 17)\} \vee \\
& \quad \{Faux1A1(False, y(8, 1), x(1, 1), y(7), x(337, 1, 2), x(260, 1, 2), \\
& \quad \quad x(183, 1, 2), x(401, 1, 2), x(106, 1, 2), x(29, 1, 2), 38), Faux1A1(False, \\
& \quad \quad y(8, 1), y(7), y(5), y(11, 1), y(10, 1), y(11, 1), y(7), y(5), 18)\}) \wedge \\
& \forall_{\{x(30,1,2), x(107,1,2), x(184,1,2), x(261,1,2), x(338,1,2), x(402,1,2), x(426,1,2), x(445,1,2)\}} (\{Faux1A1( \\
& \quad True, x(445, 1, 2), x(426, 1, 2), x(402, 1, 2), x(338, 1, 2), x(261, 1, 2), \\
& \quad x(184, 1, 2), x(107, 1, 2), x(1, 1), x(30, 1, 2), 39), Faux1A1(True, \\
& \quad y(8, 1), y(7), y(5), y(11, 1), y(10, 1), y(11, 1), y(7), y(5), 18)\} \vee \\
& \quad \{Faux2(False, y(8, 1), x(426, 1, 2), x(402, 1, 2), x(338, 1, 2), x(261, 1, 2), \\
& \quad \quad x(184, 1, 2), x(107, 1, 2), x(1, 1), x(30, 1, 2), 40), Faux2(False, \\
& \quad \quad y(8, 1), y(7), y(5), y(11, 1), y(10, 1), y(11, 1), y(7), y(5), 19)\}) \wedge \\
& \forall_{\{x(41,1,1), x(118,1,1), x(195,1,1), x(272,1,1), x(349,1,1)\}} (\{P1(True, y(8, 1), x(349, 1, 1), \\
& \quad x(272, 1, 1), x(195, 1, 1), x(118, 1, 1), x(41, 1, 1), 61), P1(True, y(8, 1), \\
& \quad y(9, 1), y(11, 1), y(10, 1), y(11, 1), y(7), 22)\} \vee \{FauxR(False, y(8, 1), \\
& \quad x(349, 1, 1), x(272, 1, 1), x(195, 1, 1), x(118, 1, 1), x(41, 1, 1), y(5), 62), \\
& \quad FauxR(False, y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(5), 23)\}) \wedge \\
& \forall_{\{x(62,1,1), x(139,1,1), x(216,1,1), x(293,1,1), x(370,1,1), x(413,1,1)\}} (\{FauxR(True, x(413, 1, 1), \\
& \quad y(9, 1), x(370, 1, 1), x(293, 1, 1), x(216, 1, 1), x(139, 1, 1), x(62, 1, 1), 105), \\
& \quad FauxR(True, y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(5), 23)\} \vee \\
& \quad \{Faux1A4(False, y(9, 1), x(1, 1), y(7), x(370, 1, 1), x(293, 1, 1), \\
& \quad \quad x(216, 1, 1), x(413, 1, 1), x(139, 1, 1), x(62, 1, 1), 106), Faux1A4(False, \\
& \quad \quad y(9, 1), y(7), y(5), y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 24)\}) \wedge \\
& \forall_{\{x(63,1,1), x(140,1,1), x(217,1,1), x(294,1,1), x(371,1,1), x(414,1,1), x(436,1,1), x(451,1,1)\}} (\{Faux1A4( \\
& \quad True, x(451, 1, 1), x(436, 1, 1), x(414, 1, 1), x(371, 1, 1), x(294, 1, 1), \\
& \quad x(217, 1, 1), x(140, 1, 1), x(1, 1), x(63, 1, 1), 107), Faux1A4(True, \\
& \quad y(9, 1), y(7), y(5), y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 24)\} \vee \\
& \quad \{Faux2(False, y(9, 1), x(436, 1, 1), x(414, 1, 1), x(371, 1, 1), x(294, 1, 1), \\
& \quad \quad x(217, 1, 1), x(140, 1, 1), x(1, 1), x(63, 1, 1), 108), Faux2(False, \\
& \quad \quad y(9, 1), y(7), y(5), y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 25)\}) \wedge \\
& \forall_{\{x(75,1,1), x(152,1,1), x(229,1,1), x(306,1,1), x(383,1,1)\}} (\{P1(True, y(9, 1), x(383, 1, 1), \\
& \quad x(306, 1, 1), x(229, 1, 1), x(152, 1, 1), x(75, 1, 1), 131), \\
& \quad P1(True, y(9, 1), y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(7), 28)\} \vee \\
& \quad \{FauxR(False, y(9, 1), x(383, 1, 1), x(306, 1, 1), x(229, 1, 1), \\
& \quad \quad x(152, 1, 1), x(75, 1, 1), y(6), 132), \\
& \quad FauxR(False, y(9, 1), y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(6), 29)\}) \wedge \\
& \forall_{\{x(11,1,1), x(88,1,1), x(165,1,1), x(242,1,1), x(319,1,1), x(395,1,1)\}} (\{FauxR(True, x(395, 1, 1), \\
& \quad y(11, 1), x(319, 1, 1), x(242, 1, 1), x(165, 1, 1), x(88, 1, 1), x(11, 1, 1), 1), \\
& \quad FauxR(True, y(9, 1), y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(6), 29)\} \vee \\
& \quad \{Faux1A2(False, y(11, 1), x(1, 1), y(7), x(319, 1, 1), x(242, 1, 1), \\
& \quad \quad x(165, 1, 1), x(395, 1, 1), x(88, 1, 1), x(11, 1, 1), 2), Faux1A2(False,
\end{aligned}$$

$y(11, 1), y(7), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 30\}) \wedge$   
 $\forall_{\{x(12, 1, 1), x(89, 1, 1), x(166, 1, 1), x(243, 1, 1), x(320, 1, 1), x(396, 1, 1), x(421, 1, 1), x(442, 1, 1)\}} (\{Faux1A2($   
 $\text{True}, x(442, 1, 1), x(421, 1, 1), x(396, 1, 1), x(320, 1, 1), x(243, 1, 1),$   
 $x(166, 1, 1), x(89, 1, 1), x(1, 1), x(12, 1, 1), 3), Faux1A2(\text{True},$   
 $y(11, 1), y(7), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 30\}) \vee$   
 $\{Faux2(\text{False}, y(11, 1), x(421, 1, 1), x(396, 1, 1), x(320, 1, 1), x(243, 1, 1),$   
 $x(166, 1, 1), x(89, 1, 1), x(1, 1), x(12, 1, 1), 4), Faux2(\text{False}, y(11, 1),$   
 $y(7), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 31\}) \wedge$   
 $\forall_{\{x(24, 1, 1), x(101, 1, 1), x(178, 1, 1), x(255, 1, 1), x(332, 1, 1)\}} (\{P(\text{True}, y(11, 1), x(332, 1, 1),$   
 $x(255, 1, 1), x(178, 1, 1), x(101, 1, 1), x(24, 1, 1), 27),$   
 $P(\text{True}, y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), 34\}) \vee$   
 $\{FauxR(\text{False}, y(11, 1), x(332, 1, 1), x(255, 1, 1),$   
 $x(178, 1, 1), x(101, 1, 1), x(24, 1, 1), y(6), 28),$   
 $FauxR(\text{False}, y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 35\}) \wedge$   
 $\forall_{\{x(45, 1, 2), x(122, 1, 2), x(199, 1, 2), x(276, 1, 2), x(353, 1, 2), x(407, 1, 2)\}} (\{FauxR(\text{True}, x(407, 1, 2),$   
 $y(10, 1), x(353, 1, 2), x(276, 1, 2), x(199, 1, 2), x(122, 1, 2), x(45, 1, 2), 71),$   
 $FauxR(\text{True}, y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 35\}) \vee$   
 $\{Faux1A3(\text{False}, y(10, 1), x(1, 1), y(7), x(353, 1, 2), x(276, 1, 2),$   
 $x(199, 1, 2), x(407, 1, 2), x(122, 1, 2), x(45, 1, 2), 72), Faux1A3(\text{False},$   
 $y(10, 1), y(7), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 36\}) \wedge$   
 $\forall_{\{x(46, 1, 2), x(123, 1, 2), x(200, 1, 2), x(277, 1, 2), x(354, 1, 2), x(408, 1, 2), x(431, 1, 2), x(448, 1, 2)\}} (\{Faux1A3($   
 $\text{True}, x(448, 1, 2), x(431, 1, 2), x(408, 1, 2), x(354, 1, 2), x(277, 1, 2),$   
 $x(200, 1, 2), x(123, 1, 2), x(1, 1), x(46, 1, 2), 73), Faux1A3(\text{True},$   
 $y(10, 1), y(7), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 36\}) \vee$   
 $\{Faux2(\text{False}, y(10, 1), x(431, 1, 2), x(408, 1, 2), x(354, 1, 2), x(277, 1, 2),$   
 $x(200, 1, 2), x(123, 1, 2), x(1, 1), x(46, 1, 2), 74), Faux2(\text{False},$   
 $y(10, 1), y(7), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 37\}) \wedge$   
 $\forall_{\{x(57, 1, 1), x(134, 1, 1), x(211, 1, 1), x(288, 1, 1), x(365, 1, 1)\}} (\{P(\text{True}, y(10, 1), x(365, 1, 1),$   
 $x(288, 1, 1), x(211, 1, 1), x(134, 1, 1), x(57, 1, 1), 95),$   
 $P(\text{True}, y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), 40\}) \vee$   
 $\{FauxR(\text{False}, y(10, 1), x(365, 1, 1), x(288, 1, 1),$   
 $x(211, 1, 1), x(134, 1, 1), x(57, 1, 1), y(2), 96),$   
 $FauxR(\text{False}, y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(2), 41\}) \wedge$   
 $\forall_{\{x(11, 1, 2), x(88, 1, 2), x(165, 1, 2), x(242, 1, 2), x(319, 1, 2), x(395, 1, 2)\}} (\{FauxR(\text{True}, x(395, 1, 2),$   
 $y(11, 1), x(319, 1, 2), x(242, 1, 2), x(165, 1, 2), x(88, 1, 2), x(11, 1, 2), 1),$   
 $FauxR(\text{True}, y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(2), 41\}) \vee$   
 $\{Faux1A2(\text{False}, y(11, 1), x(1, 1), y(7), x(319, 1, 2), x(242, 1, 2),$   
 $x(165, 1, 2), x(395, 1, 2), x(88, 1, 2), x(11, 1, 2), 2), Faux1A2(\text{False},$   
 $y(11, 1), y(7), y(7), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(2), 42\}) \wedge$   
 $\forall_{\{x(12, 1, 2), x(89, 1, 2), x(166, 1, 2), x(243, 1, 2), x(320, 1, 2), x(396, 1, 2), x(421, 1, 2), x(442, 1, 2)\}} (\{Faux1A2($   
 $\text{True}, x(442, 1, 2), x(421, 1, 2), x(396, 1, 2), x(320, 1, 2), x(243, 1, 2),$   
 $x(166, 1, 2), x(89, 1, 2), x(1, 1), x(12, 1, 2), 3), Faux1A2(\text{True},$

$y(11, 1), y(7), y(7), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(2), 42\} \vee$   
 $\{Faux2(False, y(11, 1), x(421, 1, 2), x(396, 1, 2), x(320, 1, 2), x(243, 1, 2),$   
 $x(166, 1, 2), x(89, 1, 2), x(1, 1), x(12, 1, 2), 4), Faux2(False, y(11, 1),$   
 $y(7), y(7), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(2), 43)\} \wedge$   
 $\forall_{\{x(26, 1, 1), x(103, 1, 1), x(180, 1, 1), x(257, 1, 1), x(334, 1, 1)\}} (\{P4(True, y(11, 1), x(334, 1, 1),$   
 $x(257, 1, 1), x(180, 1, 1), x(103, 1, 1), x(26, 1, 1), 31),$   
 $P4(True, y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), 46)\} \vee$   
 $\{P4(False, y(8, 1), x(334, 1, 1), x(257, 1, 1), x(180, 1, 1), x(103, 1, 1), x(26,$   
 $1, 1), 32), P4(False, y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), 47)\} \wedge$   
 $\forall_{\{x(42, 1, 1), x(119, 1, 1), x(196, 1, 1), x(273, 1, 1), x(350, 1, 1)\}} (\{P4(True, y(8, 1), x(350, 1, 1),$   
 $x(273, 1, 1), x(196, 1, 1), x(119, 1, 1), x(42, 1, 1), 63),$   
 $P4(True, y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), 47)\} \vee$   
 $\{FauxR(False, y(8, 1), x(350, 1, 1), x(273, 1, 1), x(196, 1, 1),$   
 $x(119, 1, 1), x(42, 1, 1), y(2), 64),$   
 $FauxR(False, y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(2), 48)\} \wedge$   
 $\forall_{\{x(29, 1, 3), x(106, 1, 3), x(183, 1, 3), x(260, 1, 3), x(337, 1, 3), x(401, 1, 3)\}} (\{FauxR(True, x(401, 1, 3),$   
 $y(8, 1), x(337, 1, 3), x(260, 1, 3), x(183, 1, 3), x(106, 1, 3), x(29, 1, 3), 37),$   
 $FauxR(True, y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(2), 48)\} \vee$   
 $\{Faux1A1(False, y(8, 1), x(1, 1), y(7), x(337, 1, 3), x(260, 1, 3),$   
 $x(183, 1, 3), x(401, 1, 3), x(106, 1, 3), x(29, 1, 3), 38), Faux1A1(False,$   
 $y(8, 1), y(7), y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 49)\} \wedge$   
 $\forall_{\{x(30, 1, 3), x(107, 1, 3), x(184, 1, 3), x(261, 1, 3), x(338, 1, 3), x(402, 1, 3), x(426, 1, 3), x(445, 1, 3)\}} (\{Faux1A1($   
 $True, x(445, 1, 3), x(426, 1, 3), x(402, 1, 3), x(338, 1, 3), x(261, 1, 3),$   
 $x(184, 1, 3), x(107, 1, 3), x(1, 1), x(30, 1, 3), 39), Faux1A1(True,$   
 $y(8, 1), y(7), y(7), y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 49)\} \vee$   
 $\{Faux2(False, y(8, 1), x(426, 1, 3), x(402, 1, 3), x(338, 1, 3), x(261, 1, 3),$   
 $x(184, 1, 3), x(107, 1, 3), x(1, 1), x(30, 1, 3), 40), Faux2(False,$   
 $y(8, 1), y(7), y(7), y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 50)\} \wedge$   
 $\forall_{\{x(42, 1, 2), x(119, 1, 2), x(196, 1, 2), x(273, 1, 2), x(350, 1, 2)\}} (\{P4(True, y(8, 1), x(350, 1, 2),$   
 $x(273, 1, 2), x(196, 1, 2), x(119, 1, 2), x(42, 1, 2), 63),$   
 $P4(True, y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(7), 53)\} \vee$   
 $\{FauxR(False, y(8, 1), x(350, 1, 2), x(273, 1, 2), x(196, 1, 2),$   
 $x(119, 1, 2), x(42, 1, 2), y(2), 64),$   
 $FauxR(False, y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 54)\} \wedge$   
 $\forall_{\{x(62, 1, 2), x(139, 1, 2), x(216, 1, 2), x(293, 1, 2), x(370, 1, 2), x(413, 1, 2)\}} (\{FauxR(True, x(413, 1, 2),$   
 $y(9, 1), x(370, 1, 2), x(293, 1, 2), x(216, 1, 2), x(139, 1, 2), x(62, 1, 2), 105),$   
 $FauxR(True, y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 54)\} \vee$   
 $\{Faux1A4(False, y(9, 1), x(1, 1), y(7), x(370, 1, 2), x(293, 1, 2),$   
 $x(216, 1, 2), x(413, 1, 2), x(139, 1, 2), x(62, 1, 2), 106), Faux1A4(False,$   
 $y(9, 1), y(7), y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 55)\} \wedge$   
 $\forall_{\{x(63, 1, 2), x(140, 1, 2), x(217, 1, 2), x(294, 1, 2), x(371, 1, 2), x(414, 1, 2), x(436, 1, 2), x(451, 1, 2)\}} (\{Faux1A4($   
 $True, x(451, 1, 2), x(436, 1, 2), x(414, 1, 2), x(371, 1, 2), x(294, 1, 2),$

```

    x(217, 1, 2), x(140, 1, 2), x(1, 1), x(63, 1, 2), 107), Faux1A4(True,
    y(9, 1), y(7), y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 55}) \vee
{Faux2(False, y(9, 1), x(436, 1, 2), x(414, 1, 2), x(371, 1, 2), x(294, 1, 2),
x(217, 1, 2), x(140, 1, 2), x(1, 1), x(63, 1, 2), 108), Faux2(False,
y(9, 1), y(7), y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 56)}) \wedge
\forall_{\{x(76, 1, 1), x(153, 1, 1), x(230, 1, 1), x(307, 1, 1), x(384, 1, 1)\}} (\{P4(True, y(9, 1), x(384, 1, 1),
x(307, 1, 1), x(230, 1, 1), x(153, 1, 1), x(76, 1, 1), 133),
P4(True, y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), 59)\} \vee
{FauxR(False, y(9, 1), x(384, 1, 1), x(307, 1, 1), x(230, 1, 1),
x(153, 1, 1), x(76, 1, 1), y(2), 134),
FauxR(False, y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 60)}) \wedge
\forall_{\{x(11, 1, 3), x(88, 1, 3), x(165, 1, 3), x(242, 1, 3), x(319, 1, 3), x(395, 1, 3)\}} (\{FauxR(True, x(395, 1, 3),
y(11, 1), x(319, 1, 3), x(242, 1, 3), x(165, 1, 3), x(88, 1, 3), x(11, 1, 3), 1),
FauxR(True, y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 60)\} \vee
{Faux1A2(False, y(11, 1), x(1, 1), y(7), x(319, 1, 3), x(242, 1, 3),
x(165, 1, 3), x(395, 1, 3), x(88, 1, 3), x(11, 1, 3), 2), Faux1A2(False,
y(11, 1), y(7), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 61)}) \wedge
\forall_{\{x(12, 1, 3), x(89, 1, 3), x(166, 1, 3), x(243, 1, 3), x(320, 1, 3), x(396, 1, 3), x(421, 1, 3), x(442, 1, 3)\}} (\{Faux1A2(
True, x(442, 1, 3), x(421, 1, 3), x(396, 1, 3), x(320, 1, 3), x(243, 1, 3),
x(166, 1, 3), x(89, 1, 3), x(1, 1), x(12, 1, 3), 3), Faux1A2(True,
y(11, 1), y(7), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 61)\} \vee
{Faux2(False, y(11, 1), x(421, 1, 3), x(396, 1, 3), x(320, 1, 3), x(243, 1, 3),
x(166, 1, 3), x(89, 1, 3), x(1, 1), x(12, 1, 3), 4), Faux2(False,
y(11, 1), y(7), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 62)}) \wedge
\forall_{\{x(26, 1, 2), x(103, 1, 2), x(180, 1, 2), x(257, 1, 2), x(334, 1, 2)\}} (\{P4(True, y(11, 1), x(334, 1, 2),
x(257, 1, 2), x(180, 1, 2), x(103, 1, 2), x(26, 1, 2), 31),
P4(True, y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), 65)\} \vee
{P4(False, y(8, 1), x(334, 1, 2), x(257, 1, 2), x(180, 1, 2), x(103, 1, 2), x(26,
1, 2), 32), P4(False, y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), 66)}) \wedge
\forall_{\{x(42, 1, 3), x(119, 1, 3), x(196, 1, 3), x(273, 1, 3), x(350, 1, 3)\}} (\{P4(True, y(8, 1), x(350, 1, 3),
x(273, 1, 3), x(196, 1, 3), x(119, 1, 3), x(42, 1, 3), 63),
P4(True, y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), 66)\} \vee
{FauxR(False, y(8, 1), x(350, 1, 3), x(273, 1, 3), x(196, 1, 3),
x(119, 1, 3), x(42, 1, 3), y(2), 64),
FauxR(False, y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 67)}) \wedge
\forall_{\{x(45, 1, 3), x(122, 1, 3), x(199, 1, 3), x(276, 1, 3), x(353, 1, 3), x(407, 1, 3)\}} (\{FauxR(True, x(407, 1, 3),
y(10, 1), x(353, 1, 3), x(276, 1, 3), x(199, 1, 3), x(122, 1, 3), x(45, 1, 3), 71),
FauxR(True, y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 67)\} \vee
{Faux1A3(False, y(10, 1), x(1, 1), y(7), x(353, 1, 3), x(276, 1, 3),
x(199, 1, 3), x(407, 1, 3), x(122, 1, 3), x(45, 1, 3), 72), Faux1A3(False,
y(10, 1), y(7), y(7), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 68)}) \wedge
\forall_{\{x(46, 1, 3), x(123, 1, 3), x(200, 1, 3), x(277, 1, 3), x(354, 1, 3), x(408, 1, 3), x(431, 1, 3), x(448, 1, 3)\}} (\{Faux1A3(

```

```

True, x(448, 1, 3), x(431, 1, 3), x(408, 1, 3), x(354, 1, 3), x(277, 1, 3),
x(200, 1, 3), x(123, 1, 3), x(1, 1), x(46, 1, 3), 73), Faux1A3(True,
y(10, 1), y(7), y(7), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 68}) \vee
{Faux2(False, y(10, 1), x(431, 1, 3), x(408, 1, 3), x(354, 1, 3), x(277, 1, 3),
x(200, 1, 3), x(123, 1, 3), x(1, 1), x(46, 1, 3), 74), Faux2(False,
y(10, 1), y(7), y(7), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 69)}) \wedge
\forall_{\{x(59, 1, 1), x(136, 1, 1), x(213, 1, 1), x(290, 1, 1), x(367, 1, 1)\}} \{{P4}({True, y(10, 1), x(367, 1, 1),
x(290, 1, 1), x(213, 1, 1), x(136, 1, 1), x(59, 1, 1), 99},
P4({True, y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), 72})} \vee
{FauxR(False, y(10, 1), x(367, 1, 1), x(290, 1, 1),
x(213, 1, 1), x(136, 1, 1), x(59, 1, 1), y(4), 100),
FauxR(False, y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(4), 73)}) \wedge
\forall_{\{x(29, 1, 4), x(106, 1, 4), x(183, 1, 4), x(260, 1, 4), x(337, 1, 4), x(401, 1, 4)\}} \{{FauxR}({True, x(401, 1, 4),
y(8, 1), x(337, 1, 4), x(260, 1, 4), x(183, 1, 4), x(106, 1, 4), x(29, 1, 4), 37},
FauxR({True, y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(4), 73})} \vee
{Faux1A1(False, y(8, 1), x(1, 1), y(7), x(337, 1, 4), x(260, 1, 4),
x(183, 1, 4), x(401, 1, 4), x(106, 1, 4), x(29, 1, 4), 38), Faux1A1(False,
y(8, 1), y(7), y(7), y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(7), y(4), 74)}) \wedge
\forall_{\{x(30, 1, 4), x(107, 1, 4), x(184, 1, 4), x(261, 1, 4), x(338, 1, 4), x(402, 1, 4), x(426, 1, 4), x(445, 1, 4)\}} \{{Faux1A1}(
True, x(445, 1, 4), x(426, 1, 4), x(402, 1, 4), x(338, 1, 4), x(261, 1, 4),
x(184, 1, 4), x(107, 1, 4), x(1, 1), x(30, 1, 4), 39), Faux1A1({True,
y(8, 1), y(7), y(7), y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(7), y(4), 74})} \vee
{Faux2(False, y(8, 1), x(426, 1, 4), x(402, 1, 4), x(338, 1, 4), x(261, 1, 4),
x(184, 1, 4), x(107, 1, 4), x(1, 1), x(30, 1, 4), 40), Faux2(False,
y(8, 1), y(7), y(7), y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(7), y(4), 75)}) \wedge
\forall_{\{x(43, 1, 1), x(120, 1, 1), x(197, 1, 1), x(274, 1, 1), x(351, 1, 1)\}} \{{P2}({True, y(8, 1), x(351, 1, 1),
x(274, 1, 1), x(197, 1, 1), x(120, 1, 1), x(43, 1, 1), 65},
P2({True, y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(7), 78})} \vee
{FauxR(False, y(8, 1), x(351, 1, 1), x(274, 1, 1), x(197, 1, 1),
x(120, 1, 1), x(43, 1, 1), y(4), 66),
FauxR(False, y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(7), y(4), 79)}) \wedge
\forall_{\{x(29, 1, 5), x(106, 1, 5), x(183, 1, 5), x(260, 1, 5), x(337, 1, 5), x(401, 1, 5)\}} \{{FauxR}({True, x(401, 1, 5),
y(8, 1), x(337, 1, 5), x(260, 1, 5), x(183, 1, 5), x(106, 1, 5), x(29, 1, 5), 37},
FauxR({True, y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(7), y(4), 79})} \vee
{Faux1A1(False, y(8, 1), x(1, 1), y(7), x(337, 1, 5), x(260, 1, 5),
x(183, 1, 5), x(401, 1, 5), x(106, 1, 5), x(29, 1, 5), 38), Faux1A1(False,
y(8, 1), y(7), y(7), y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 80)}) \wedge
\forall_{\{x(30, 1, 5), x(107, 1, 5), x(184, 1, 5), x(261, 1, 5), x(338, 1, 5), x(402, 1, 5), x(426, 1, 5), x(445, 1, 5)\}} \{{Faux1A1}(
True, x(445, 1, 5), x(426, 1, 5), x(402, 1, 5), x(338, 1, 5), x(261, 1, 5),
x(184, 1, 5), x(107, 1, 5), x(1, 1), x(30, 1, 5), 39), Faux1A1({True,
y(8, 1), y(7), y(7), y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 80})} \vee
{Faux2(False, y(8, 1), x(426, 1, 5), x(402, 1, 5), x(338, 1, 5), x(261, 1, 5),
x(184, 1, 5), x(107, 1, 5), x(1, 1), x(30, 1, 5), 40), Faux2(False,
y(8, 1), y(7), y(7), y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 81)})

```

$x(184, 1, 5), x(107, 1, 5), x(1, 1), x(30, 1, 5), 40), \text{Faux2(False,}$   
 $y(8, 1), y(7), y(7), y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 81)\}) \wedge$   
 $\forall_{\{x(43, 1, 2), x(120, 1, 2), x(197, 1, 2), x(274, 1, 2), x(351, 1, 2)\}} (\{P2(True, y(8, 1), x(351, 1, 2),$   
 $x(274, 1, 2), x(197, 1, 2), x(120, 1, 2), x(43, 1, 2), 65),$   
 $P2(True, y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(7), 84)\} \vee$   
 $\{\text{FauxR(False, y(8, 1), x(351, 1, 2), x(274, 1, 2), x(197, 1, 2),$   
 $x(120, 1, 2), x(43, 1, 2), y(4), 66),$   
 $\text{FauxR(False, y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 85)\}) \wedge$   
 $\forall_{\{x(62, 1, 3), x(139, 1, 3), x(216, 1, 3), x(293, 1, 3), x(370, 1, 3), x(413, 1, 3)\}} (\{\text{FauxR(True, x(413, 1, 3),$   
 $y(9, 1), x(370, 1, 3), x(293, 1, 3), x(216, 1, 3), x(139, 1, 3), x(62, 1, 3), 105),$   
 $\text{FauxR(True, y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 85)\} \vee$   
 $\{\text{Faux1A4(False, y(9, 1), x(1, 1), y(7), x(370, 1, 3), x(293, 1, 3),$   
 $x(216, 1, 3), x(413, 1, 3), x(139, 1, 3), x(62, 1, 3), 106), \text{Faux1A4(False,}$   
 $y(9, 1), y(7), y(7), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 86)\}) \wedge$   
 $\forall_{\{x(63, 1, 3), x(140, 1, 3), x(217, 1, 3), x(294, 1, 3), x(371, 1, 3), x(414, 1, 3), x(436, 1, 3), x(451, 1, 3)\}} (\{\text{Faux1A4($   
 $\text{True, x(451, 1, 3), x(436, 1, 3), x(414, 1, 3), x(371, 1, 3), x(294, 1, 3),$   
 $x(217, 1, 3), x(140, 1, 3), x(1, 1), x(63, 1, 3), 107), \text{Faux1A4(True,}$   
 $y(9, 1), y(7), y(7), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 86)\} \vee$   
 $\{\text{Faux2(False, y(9, 1), x(436, 1, 3), x(414, 1, 3), x(371, 1, 3), x(294, 1, 3),$   
 $x(217, 1, 3), x(140, 1, 3), x(1, 1), x(63, 1, 3), 108), \text{Faux2(False,}$   
 $y(9, 1), y(7), y(7), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 87)\}) \wedge$   
 $\forall_{\{x(77, 1, 1), x(154, 1, 1), x(231, 1, 1), x(308, 1, 1), x(385, 1, 1)\}} (\{P2(True, y(9, 1), x(385, 1, 1),$   
 $x(308, 1, 1), x(231, 1, 1), x(154, 1, 1), x(77, 1, 1), 135),$   
 $P2(True, y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), 90)\} \vee$   
 $\{\text{FauxR(False, y(9, 1), x(385, 1, 1), x(308, 1, 1), x(231, 1, 1),$   
 $x(154, 1, 1), x(77, 1, 1), y(3), 136),$   
 $\text{FauxR(False, y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(3), 91)\}) \wedge$   
 $\forall_{\{x(29, 1, 6), x(106, 1, 6), x(183, 1, 6), x(260, 1, 6), x(337, 1, 6), x(401, 1, 6)\}} (\{\text{FauxR(True, x(401, 1, 6),$   
 $y(8, 1), x(337, 1, 6), x(260, 1, 6), x(183, 1, 6), x(106, 1, 6), x(29, 1, 6), 37),$   
 $\text{FauxR(True, y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(3), 91)\} \vee$   
 $\{\text{Faux1A1(False, y(8, 1), x(1, 1), y(7), x(337, 1, 6), x(260, 1, 6),$   
 $x(183, 1, 6), x(401, 1, 6), x(106, 1, 6), x(29, 1, 6), 38), \text{Faux1A1(False,}$   
 $y(8, 1), y(7), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 92)\}) \wedge$   
 $\forall_{\{x(30, 1, 6), x(107, 1, 6), x(184, 1, 6), x(261, 1, 6), x(338, 1, 6), x(402, 1, 6), x(426, 1, 6), x(445, 1, 6)\}} (\{\text{Faux1A1($   
 $\text{True, x(445, 1, 6), x(426, 1, 6), x(402, 1, 6), x(338, 1, 6), x(261, 1, 6),$   
 $x(184, 1, 6), x(107, 1, 6), x(1, 1), x(30, 1, 6), 39), \text{Faux1A1(True,}$   
 $y(8, 1), y(7), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 92)\} \vee$   
 $\{\text{Faux2(False, y(8, 1), x(426, 1, 6), x(402, 1, 6), x(338, 1, 6), x(261, 1, 6),$   
 $x(184, 1, 6), x(107, 1, 6), x(1, 1), x(30, 1, 6), 40), \text{Faux2(False,}$   
 $y(8, 1), y(7), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 93)\}) \wedge$   
 $\forall_{\{x(44, 1, 1), x(121, 1, 1), x(198, 1, 1), x(275, 1, 1), x(352, 1, 1)\}} (\{P3(True, y(8, 1), x(352, 1, 1),$   
 $x(275, 1, 1), x(198, 1, 1), x(121, 1, 1), x(44, 1, 1), 67),$

```

P3(True, y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), 96}) ∨
{FauxS1(False, y(8, 1), x(352, 1, 1), x(275, 1, 1),
x(198, 1, 1), x(121, 1, 1), x(44, 1, 1), y(6), 68),
FauxS1(False, y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(6), 97)}) ∧
∀{x(23, 1, 3), x(100, 1, 3), x(177, 1, 3), x(254, 1, 3), x(331, 1, 3)} {P(True, y(8, 1), x(331, 1, 3),
x(254, 1, 3), x(177, 1, 3), x(100, 1, 3), x(23, 1, 3), 25),
P(True, y(8, 1), y(8, 2), y(8, 1), y(8, 1), y(9, 1), y(7), 98}) ∨ {P1(False,
y(11, 1), x(331, 1, 3), x(254, 1, 3), x(177, 1, 3), x(100, 1, 3), x(23, 1, 3), 26),
P1(False, y(11, 1), y(8, 2), y(8, 1), y(8, 1), y(9, 1), y(7), 99)}) ∧
∀{x(25, 1, 3), x(102, 1, 3), x(179, 1, 3), x(256, 1, 3), x(333, 1, 3)} {P1(True, y(11, 1), x(333, 1, 3),
x(256, 1, 3), x(179, 1, 3), x(102, 1, 3), x(25, 1, 3), 29),
P1(True, y(11, 1), y(8, 2), y(8, 1), y(8, 1), y(9, 1), y(7), 99}) ∨
{FauxR(False, y(11, 1), x(333, 1, 3), x(256, 1, 3),
x(179, 1, 3), x(102, 1, 3), x(25, 1, 3), y(5), 30),
FauxR(False, y(11, 1), y(8, 2), y(8, 1), y(8, 1), y(9, 1), y(7), y(5), 100)}) ∧
∀{x(30, 1, 7), x(107, 1, 7), x(184, 1, 7), x(261, 1, 7), x(338, 1, 7), x(402, 1, 7), x(426, 1, 7), x(445, 1, 7)} {Faux1A1(
True, x(445, 1, 7), x(426, 1, 7), x(402, 1, 7), x(338, 1, 7), x(261, 1, 7),
x(184, 1, 7), x(107, 1, 7), x(1, 1), x(30, 1, 7), 39), Faux1A1(True, y(8, 2),
y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 101}) ∨
{Faux2(False, y(8, 1), x(426, 1, 7), x(402, 1, 7), x(338, 1, 7), x(261, 1, 7),
x(184, 1, 7), x(107, 1, 7), x(1, 1), x(30, 1, 7), 40), Faux2(False, y(8, 1),
y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 102)}) ∧
∀{x(47, 1, 1), x(124, 1, 1), x(201, 1, 1), x(278, 1, 1), x(355, 1, 1), x(409, 1, 1), x(432, 1, 1), x(449, 1, 1)} {Faux2(
True, x(449, 1, 1), y(10, 1), x(432, 1, 1), x(409, 1, 1), x(355, 1, 1),
x(278, 1, 1), x(201, 1, 1), x(124, 1, 1), x(47, 1, 1), 75), Faux2(True,
y(8, 1), y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 102}) ∨
{Faux3A3(False, x(449, 1, 1), x(1, 1), x(432, 1, 1), x(409, 1, 1), x(355, 1, 1),
x(278, 1, 1), x(201, 1, 1), x(124, 1, 1), x(47, 1, 1), 76), Faux3A3(False,
y(8, 1), y(7), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 103)}) ∧
∀{x(48, 1, 1), x(125, 1, 1), x(202, 1, 1), x(279, 1, 1), x(356, 1, 1), x(410, 1, 1), x(433, 1, 1), x(450, 1, 1)} {Faux3A3(
True, x(450, 1, 1), x(433, 1, 1), x(1, 1), x(410, 1, 1), x(356, 1, 1),
x(279, 1, 1), x(202, 1, 1), x(125, 1, 1), x(48, 1, 1), 77), Faux3A3(True,
y(8, 1), y(7), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 103}) ∨
{Faux2(False, x(450, 1, 1), x(433, 1, 1), y(10, 1), x(410, 1, 1), x(356, 1, 1),
x(279, 1, 1), x(202, 1, 1), x(125, 1, 1), x(48, 1, 1), 78), Faux2(False,
y(8, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 104)}) ∧
∀{x(49, 1, 1), x(126, 1, 1), x(203, 1, 1), x(280, 1, 1), x(357, 1, 1), x(411, 1, 1), x(434, 1, 1)} {Faux4(True,
x(434, 1, 1), y(10, 1), x(411, 1, 1), x(357, 1, 1), x(280, 1, 1),
x(203, 1, 1), x(126, 1, 1), x(49, 1, 1), 79), Faux4(True, y(8, 1),
y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 105}) ∨
{Faux5A3(False, x(434, 1, 1), x(1, 1), x(411, 1, 1), x(357, 1, 1),
x(280, 1, 1), x(203, 1, 1), x(126, 1, 1), x(49, 1, 1), 80), Faux5A3(False,

```

$$\begin{aligned}
& y(8, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 106)) \wedge \\
& \forall_{\{x(41, 1, 2), x(118, 1, 2), x(195, 1, 2), x(272, 1, 2), x(349, 1, 2)\}} \{P1(True, y(8, 1), x(349, 1, 2), \\
& x(272, 1, 2), x(195, 1, 2), x(118, 1, 2), x(41, 1, 2), 61), \\
& P1(True, y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), 109)\} \vee \\
& \{FauxR(False, y(8, 1), x(349, 1, 2), x(272, 1, 2), x(195, 1, 2), \\
& x(118, 1, 2), x(41, 1, 2), y(5), 62), \\
& FauxR(False, y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 110)\} \wedge \\
& \forall_{\{x(46, 1, 4), x(123, 1, 4), x(200, 1, 4), x(277, 1, 4), x(354, 1, 4), x(408, 1, 4), x(431, 1, 4), x(448, 1, 4)\}} \{ \\
& \{Faux1A3(True, x(448, 1, 4), x(431, 1, 4), x(408, 1, 4), x(354, 1, 4), x(277, 1, 4), \\
& x(200, 1, 4), x(123, 1, 4), x(1, 1), x(46, 1, 4), 73), Faux1A3(True, \\
& y(10, 2), y(8, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 111)\} \vee \\
& \{Faux2(False, y(10, 1), x(431, 1, 4), x(408, 1, 4), x(354, 1, 4), x(277, 1, 4), \\
& x(200, 1, 4), x(123, 1, 4), x(1, 1), x(46, 1, 4), 74), Faux2(False, y(10, 1), \\
& y(8, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 112)\} \wedge \\
& \forall_{\{x(31, 1, 1), x(108, 1, 1), x(185, 1, 1), x(262, 1, 1), x(339, 1, 1), x(403, 1, 1), x(427, 1, 1), x(446, 1, 1)\}} \{ \\
& \{Faux2(True, x(446, 1, 1), y(8, 1), x(427, 1, 1), x(403, 1, 1), x(339, 1, 1), \\
& x(262, 1, 1), x(185, 1, 1), x(108, 1, 1), x(31, 1, 1), 41), Faux2(True, \\
& y(10, 1), y(8, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 112)\} \vee \\
& \{Faux3A1(False, x(446, 1, 1), x(1, 1), x(427, 1, 1), x(403, 1, 1), x(339, 1, 1), \\
& x(262, 1, 1), x(185, 1, 1), x(108, 1, 1), x(31, 1, 1), 42), Faux3A1(False, \\
& y(10, 1), y(7), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 113)\} \wedge \\
& \forall_{\{x(32, 1, 1), x(109, 1, 1), x(186, 1, 1), x(263, 1, 1), x(340, 1, 1), x(404, 1, 1), x(428, 1, 1), x(447, 1, 1)\}} \{ \\
& \{Faux3A1(True, x(447, 1, 1), x(428, 1, 1), x(1, 1), x(404, 1, 1), x(340, 1, 1), \\
& x(263, 1, 1), x(186, 1, 1), x(109, 1, 1), x(32, 1, 1), 43), Faux3A1(True, \\
& y(10, 1), y(7), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 113)\} \vee \\
& \{Faux2(False, x(447, 1, 1), x(428, 1, 1), y(8, 1), x(404, 1, 1), x(340, 1, 1), \\
& x(263, 1, 1), x(186, 1, 1), x(109, 1, 1), x(32, 1, 1), 44), Faux2(False, \\
& y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 114)\} \wedge \\
& \forall_{\{x(33, 1, 1), x(110, 1, 1), x(187, 1, 1), x(264, 1, 1), x(341, 1, 1), x(405, 1, 1), x(429, 1, 1)\}} \{ \\
& \{Faux4(True, x(429, 1, 1), y(8, 1), x(405, 1, 1), x(341, 1, 1), x(264, 1, 1), \\
& x(187, 1, 1), x(110, 1, 1), x(33, 1, 1), 45), Faux4(True, y(10, 1), \\
& y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 115)\} \vee \\
& \{Faux5A1(False, x(429, 1, 1), x(1, 1), x(405, 1, 1), x(341, 1, 1), \\
& x(264, 1, 1), x(187, 1, 1), x(110, 1, 1), x(33, 1, 1), 46), Faux5A1(False, \\
& y(10, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 116)\} \wedge \\
& \forall_{\{x(58, 1, 2), x(135, 1, 2), x(212, 1, 2), x(289, 1, 2), x(366, 1, 2)\}} \{ \\
& \{P1(True, y(10, 1), x(366, 1, 2), \\
& x(289, 1, 2), x(212, 1, 2), x(135, 1, 2), x(58, 1, 2), 97), \\
& P1(True, y(10, 1), y(8, 2), y(9, 1), y(11, 1), y(8, 1), y(7), 119)\} \vee \\
& \{FauxR(False, y(10, 1), x(366, 1, 2), x(289, 1, 2), \\
& x(212, 1, 2), x(135, 1, 2), x(58, 1, 2), y(6), 98), \\
& FauxR(False, y(10, 1), y(8, 2), y(9, 1), y(11, 1), y(8, 1), y(7), y(6), 120)\} \wedge \\
& \forall_{\{x(30, 1, 8), x(107, 1, 8), x(184, 1, 8), x(261, 1, 8), x(338, 1, 8), x(402, 1, 8), x(426, 1, 8), x(445, 1, 8)\}} \{ \\
& \{Faux1A1(
\end{aligned}$$

True, x(445, 1, 8), x(426, 1, 8), x(402, 1, 8), x(338, 1, 8), x(261, 1, 8),  
 x(184, 1, 8), x(107, 1, 8), x(1, 1), x(30, 1, 8), 39), Faux1A1(True, y(8, 2),  
 y(8, 1), y(7), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 121}) v  
{Faux2(False, y(8, 1), x(426, 1, 8), x(402, 1, 8), x(338, 1, 8), x(261, 1, 8),  
x(184, 1, 8), x(107, 1, 8), x(1, 1), x(30, 1, 8), 40), Faux2(False, y(8, 1),  
y(8, 1), y(7), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 122})} w  
 $\forall_{\{x(31,1,2), x(108,1,2), x(185,1,2), x(262,1,2), x(339,1,2), x(403,1,2), x(427,1,2), x(446,1,2)\}} \{$  {Faux2(  
 True, x(446, 1, 2), y(8, 1), x(427, 1, 2), x(403, 1, 2), x(339, 1, 2),  
 x(262, 1, 2), x(185, 1, 2), x(108, 1, 2), x(31, 1, 2), 41), Faux2(True,  
 y(8, 1), y(8, 1), y(7), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 122}) v  
{Faux3A1(False, x(446, 1, 2), x(1, 1), x(427, 1, 2), x(403, 1, 2), x(339, 1, 2),  
 x(262, 1, 2), x(185, 1, 2), x(108, 1, 2), x(31, 1, 2), 42), Faux3A1(False,  
 y(8, 1), y(7), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 123})} w  
 $\forall_{\{x(32,1,2), x(109,1,2), x(186,1,2), x(263,1,2), x(340,1,2), x(404,1,2), x(428,1,2), x(447,1,2)\}} \{$  {Faux3A1(  
 True, x(447, 1, 2), x(428, 1, 2), x(1, 1), x(404, 1, 2), x(340, 1, 2),  
 x(263, 1, 2), x(186, 1, 2), x(109, 1, 2), x(32, 1, 2), 43), Faux3A1(True,  
 y(8, 1), y(7), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 123}) v  
{Faux2(False, x(447, 1, 2), x(428, 1, 2), y(8, 1), x(404, 1, 2), x(340, 1, 2),  
 x(263, 1, 2), x(186, 1, 2), x(109, 1, 2), x(32, 1, 2), 44), Faux2(False,  
 y(8, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 124})} w  
 $\forall_{\{x(33,1,2), x(110,1,2), x(187,1,2), x(264,1,2), x(341,1,2), x(405,1,2), x(429,1,2)\}} \{$  {Faux4(True,  
 x(429, 1, 2), y(8, 1), x(405, 1, 2), x(341, 1, 2), x(264, 1, 2),  
 x(187, 1, 2), x(110, 1, 2), x(33, 1, 2), 45), Faux4(True, y(8, 1),  
 y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 125}) v  
{Faux5A1(False, x(429, 1, 2), x(1, 1), x(405, 1, 2), x(341, 1, 2),  
 x(264, 1, 2), x(187, 1, 2), x(110, 1, 2), x(33, 1, 2), 46), Faux5A1(False,  
 y(8, 1), y(7), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 126})} w  
 $\forall_{\{x(23,1,4), x(100,1,4), x(177,1,4), x(254,1,4), x(331,1,4)\}} \{$  {P(True, y(8, 1), x(331, 1, 4),  
 x(254, 1, 4), x(177, 1, 4), x(100, 1, 4), x(23, 1, 4), 25),  
 P(True, y(8, 1), y(8, 2), y(11, 1), y(8, 1), y(10, 1), y(7), 129)} v {P1(False,  
 y(11, 1), x(331, 1, 4), x(254, 1, 4), x(177, 1, 4), x(100, 1, 4), x(23, 1, 4), 26),  
 P1(False, y(11, 1), y(8, 2), y(11, 1), y(8, 1), y(10, 1), y(7), 130)} w  
 $\forall_{\{x(25,1,4), x(102,1,4), x(179,1,4), x(256,1,4), x(333,1,4)\}} \{$  {P1(True, y(11, 1), x(333, 1, 4),  
 x(256, 1, 4), x(179, 1, 4), x(102, 1, 4), x(25, 1, 4), 29),  
 P1(True, y(11, 1), y(8, 2), y(11, 1), y(8, 1), y(10, 1), y(7), 130)} v  
{FauxR(False, y(11, 1), x(333, 1, 4), x(256, 1, 4),  
 x(179, 1, 4), x(102, 1, 4), x(25, 1, 4), y(5), 30),  
 FauxR(False, y(11, 1), y(8, 2), y(11, 1), y(8, 1), y(10, 1), y(7), y(5), 131)} w  
 $\forall_{\{x(30,1,9), x(107,1,9), x(184,1,9), x(261,1,9), x(338,1,9), x(402,1,9), x(426,1,9), x(445,1,9)\}} \{$  {Faux1A1(  
 True, x(445, 1, 9), x(426, 1, 9), x(402, 1, 9), x(338, 1, 9), x(261, 1, 9),  
 x(184, 1, 9), x(107, 1, 9), x(1, 1), x(30, 1, 9), 39), Faux1A1(True, y(8, 2),  
 y(9, 1), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 132)} v

$\{Faux2(\text{False}, y(8, 1), x(426, 1, 9), x(402, 1, 9), x(338, 1, 9), x(261, 1, 9),$   
 $x(184, 1, 9), x(107, 1, 9), x(1, 1), x(30, 1, 9), 40), Faux2(\text{False}, y(8, 1),$   
 $y(9, 1), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 133)\} \wedge$   
 $\forall_{\{x(64, 1, 1), x(141, 1, 1), x(218, 1, 1), x(295, 1, 1), x(372, 1, 1), x(415, 1, 1), x(437, 1, 1), x(452, 1, 1)\}} (\{Faux2($   
 $\text{True}, x(452, 1, 1), y(9, 1), x(437, 1, 1), x(415, 1, 1), x(372, 1, 1),$   
 $x(295, 1, 1), x(218, 1, 1), x(141, 1, 1), x(64, 1, 1), 109), Faux2(\text{True},$   
 $y(8, 1), y(9, 1), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 133)\}) \vee$   
 $\{Faux3A4(\text{False}, x(452, 1, 1), x(1, 1), x(437, 1, 1), x(415, 1, 1), x(372, 1, 1),$   
 $x(295, 1, 1), x(218, 1, 1), x(141, 1, 1), x(64, 1, 1), 110), Faux3A4(\text{False},$   
 $y(8, 1), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 134)\}) \wedge$   
 $\forall_{\{x(65, 1, 1), x(142, 1, 1), x(219, 1, 1), x(296, 1, 1), x(373, 1, 1), x(416, 1, 1), x(438, 1, 1), x(453, 1, 1)\}} (\{Faux3A4($   
 $\text{True}, x(453, 1, 1), x(438, 1, 1), x(1, 1), x(416, 1, 1), x(373, 1, 1),$   
 $x(296, 1, 1), x(219, 1, 1), x(142, 1, 1), x(65, 1, 1), 111), Faux3A4(\text{True},$   
 $y(8, 1), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 134)\}) \vee$   
 $\{Faux2(\text{False}, x(453, 1, 1), x(438, 1, 1), y(9, 1), x(416, 1, 1), x(373, 1, 1),$   
 $x(296, 1, 1), x(219, 1, 1), x(142, 1, 1), x(65, 1, 1), 112), Faux2(\text{False},$   
 $y(8, 1), y(7), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 135)\}) \wedge$   
 $\forall_{\{x(66, 1, 1), x(143, 1, 1), x(220, 1, 1), x(297, 1, 1), x(374, 1, 1), x(417, 1, 1), x(439, 1, 1)\}} (\{Faux4(\text{True},$   
 $x(439, 1, 1), y(9, 1), x(417, 1, 1), x(374, 1, 1), x(297, 1, 1),$   
 $x(220, 1, 1), x(143, 1, 1), x(66, 1, 1), 113), Faux4(\text{True}, y(8, 1),$   
 $y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 136)\}) \vee$   
 $\{Faux5A4(\text{False}, x(439, 1, 1), x(1, 1), x(417, 1, 1), x(374, 1, 1),$   
 $x(297, 1, 1), x(220, 1, 1), x(143, 1, 1), x(66, 1, 1), 114), Faux5A4(\text{False},$   
 $y(8, 1), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 137)\}) \wedge$   
 $\forall_{\{x(41, 1, 3), x(118, 1, 3), x(195, 1, 3), x(272, 1, 3), x(349, 1, 3)\}} (\{P1(\text{True}, y(8, 1), x(349, 1, 3),$   
 $x(272, 1, 3), x(195, 1, 3), x(118, 1, 3), x(41, 1, 3), 61),$   
 $P1(\text{True}, y(8, 1), y(9, 2), y(8, 1), y(10, 1), y(11, 1), y(7), 140)\}) \vee$   
 $\{FauxR(\text{False}, y(8, 1), x(349, 1, 3), x(272, 1, 3), x(195, 1, 3),$   
 $x(118, 1, 3), x(41, 1, 3), y(5), 62),$   
 $FauxR(\text{False}, y(8, 1), y(9, 2), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 141)\}) \wedge$   
 $\forall_{\{x(63, 1, 4), x(140, 1, 4), x(217, 1, 4), x(294, 1, 4), x(371, 1, 4), x(414, 1, 4), x(436, 1, 4), x(451, 1, 4)\}} (\{Faux1A4($   
 $\text{True}, x(451, 1, 4), x(436, 1, 4), x(414, 1, 4), x(371, 1, 4), x(294, 1, 4),$   
 $x(217, 1, 4), x(140, 1, 4), x(1, 1), x(63, 1, 4), 107), Faux1A4(\text{True}, y(9, 2),$   
 $y(11, 1), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 142)\}) \vee$   
 $\{Faux2(\text{False}, y(9, 1), x(436, 1, 4), x(414, 1, 4), x(371, 1, 4), x(294, 1, 4),$   
 $x(217, 1, 4), x(140, 1, 4), x(1, 1), x(63, 1, 4), 108), Faux2(\text{False}, y(9, 1),$   
 $y(11, 1), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 143)\}) \wedge$   
 $\forall_{\{x(13, 1, 1), x(90, 1, 1), x(167, 1, 1), x(244, 1, 1), x(321, 1, 1), x(397, 1, 1), x(422, 1, 1), x(443, 1, 1)\}} (\{Faux2($   
 $\text{True}, x(443, 1, 1), y(11, 1), x(422, 1, 1), x(397, 1, 1), x(321, 1, 1),$   
 $x(244, 1, 1), x(167, 1, 1), x(90, 1, 1), x(13, 1, 1), 5), Faux2(\text{True}, y(9, 1),$   
 $y(11, 1), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 143)\}) \vee$   
 $\{Faux3A2(\text{False}, x(443, 1, 1), x(1, 1), x(422, 1, 1), x(397, 1, 1), x(321, 1, 1),$

```

x(244, 1, 1), x(167, 1, 1), x(90, 1, 1), x(13, 1, 1), 6), Faux3A2(False,
y(9, 1), y(7), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 144)}) \wedge
V{x(14,1,1),x(91,1,1),x(168,1,1),x(245,1,1),x(322,1,1),x(398,1,1),x(423,1,1),x(444,1,1)} ({Faux3A2(
True, x(444, 1, 1), x(423, 1, 1), x(1, 1), x(398, 1, 1), x(322, 1, 1),
x(245, 1, 1), x(168, 1, 1), x(91, 1, 1), x(14, 1, 1), 7), Faux3A2(True,
y(9, 1), y(7), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 144)}) \vee
{Faux2(False, x(444, 1, 1), x(423, 1, 1), y(11, 1), x(398, 1, 1), x(322, 1, 1),
x(245, 1, 1), x(168, 1, 1), x(91, 1, 1), x(14, 1, 1), 8), Faux2(False, y(9, 1),
y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 145)}) \wedge
V{x(15,1,1),x(92,1,1),x(169,1,1),x(246,1,1),x(323,1,1),x(399,1,1),x(424,1,1)} ({Faux4(True,
x(424, 1, 1), y(11, 1), x(399, 1, 1), x(323, 1, 1), x(246, 1, 1),
x(169, 1, 1), x(92, 1, 1), x(15, 1, 1), 9), Faux4(True, y(9, 1),
y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 146)}) \vee
{Faux5A2(False, x(424, 1, 1), x(1, 1), x(399, 1, 1), x(323, 1, 1),
x(246, 1, 1), x(169, 1, 1), x(92, 1, 1), x(15, 1, 1), 10), Faux5A2(False,
y(9, 1), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 147)}) \wedge
V{x(75,1,2),x(152,1,2),x(229,1,2),x(306,1,2),x(383,1,2)} ({P1(True, y(9, 1), x(383, 1, 2),
x(306, 1, 2), x(229, 1, 2), x(152, 1, 2), x(75, 1, 2), 131),
P1(True, y(9, 1), y(11, 2), y(10, 1), y(11, 1), y(8, 1), y(7), 150)}) \vee
{FauxR(False, y(9, 1), x(383, 1, 2), x(306, 1, 2), x(229, 1, 2),
x(152, 1, 2), x(75, 1, 2), y(6), 132),
FauxR(False, y(9, 1), y(11, 2), y(10, 1), y(11, 1), y(8, 1), y(7), y(6), 151)}) \wedge
V{x(12,1,4),x(89,1,4),x(166,1,4),x(243,1,4),x(320,1,4),x(396,1,4),x(421,1,4),x(442,1,4)} ({Faux1A2(
True, x(442, 1, 4), x(421, 1, 4), x(396, 1, 4), x(320, 1, 4), x(243, 1, 4),
x(166, 1, 4), x(89, 1, 4), x(1, 1), x(12, 1, 4), 3), Faux1A2(True, y(11, 2),
y(8, 1), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 152)}) \vee
{Faux2(False, y(11, 1), x(421, 1, 4), x(396, 1, 4), x(320, 1, 4), x(243, 1, 4),
x(166, 1, 4), x(89, 1, 4), x(1, 1), x(12, 1, 4), 4), Faux2(False, y(11, 1),
y(8, 1), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 153)}) \wedge
V{x(31,1,3),x(108,1,3),x(185,1,3),x(262,1,3),x(339,1,3),x(403,1,3),x(427,1,3),x(446,1,3)} ({Faux2(
True, x(446, 1, 3), y(8, 1), x(427, 1, 3), x(403, 1, 3), x(339, 1, 3),
x(262, 1, 3), x(185, 1, 3), x(108, 1, 3), x(31, 1, 3), 41), Faux2(True,
y(11, 1), y(8, 1), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 153)}) \vee
{Faux3A1(False, x(446, 1, 3), x(1, 1), x(427, 1, 3), x(403, 1, 3), x(339, 1, 3),
x(262, 1, 3), x(185, 1, 3), x(108, 1, 3), x(31, 1, 3), 42), Faux3A1(False,
y(11, 1), y(7), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 154)}) \wedge
V{x(32,1,3),x(109,1,3),x(186,1,3),x(263,1,3),x(340,1,3),x(404,1,3),x(428,1,3),x(447,1,3)} ({Faux3A1(
True, x(447, 1, 3), x(428, 1, 3), x(1, 1), x(404, 1, 3), x(340, 1, 3),
x(263, 1, 3), x(186, 1, 3), x(109, 1, 3), x(32, 1, 3), 43), Faux3A1(True,
y(11, 1), y(7), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 154)}) \vee
{Faux2(False, x(447, 1, 3), x(428, 1, 3), y(8, 1), x(404, 1, 3), x(340, 1, 3),
x(263, 1, 3), x(186, 1, 3), x(109, 1, 3), x(32, 1, 3), 44), Faux2(False,

```

$$\begin{aligned}
& y(11, 1), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 155) \} \wedge \\
& \forall_{\{x(33, 1, 3), x(110, 1, 3), x(187, 1, 3), x(264, 1, 3), x(341, 1, 3), x(405, 1, 3), x(429, 1, 3)\}} \{ \text{Faux4}(\text{True}, \\
& x(429, 1, 3), y(8, 1), x(405, 1, 3), x(341, 1, 3), x(264, 1, 3), \\
& x(187, 1, 3), x(110, 1, 3), x(33, 1, 3), 45), \text{Faux4}(\text{True}, y(11, 1), \\
& y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 156) \} \vee \\
& \{ \text{Faux5A1}(\text{False}, x(429, 1, 3), x(1, 1), x(405, 1, 3), x(341, 1, 3), \\
& x(264, 1, 3), x(187, 1, 3), x(110, 1, 3), x(33, 1, 3), 46), \text{Faux5A1}(\text{False}, \\
& y(11, 1), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 157) \} \wedge \\
& \forall_{\{x(24, 1, 2), x(101, 1, 2), x(178, 1, 2), x(255, 1, 2), x(332, 1, 2)\}} \{ \text{P}(\text{True}, y(11, 1), x(332, 1, 2), \\
& x(255, 1, 2), x(178, 1, 2), x(101, 1, 2), x(24, 1, 2), 27), \\
& \text{P}(\text{True}, y(11, 1), y(8, 2), y(11, 1), y(8, 1), y(9, 1), y(7), 160) \} \vee \\
& \{ \text{FauxR}(\text{False}, y(11, 1), x(332, 1, 2), x(255, 1, 2), \\
& x(178, 1, 2), x(101, 1, 2), x(24, 1, 2), y(6), 28), \\
& \text{FauxR}(\text{False}, y(11, 1), y(8, 2), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 161) \} \wedge \\
& \forall_{\{x(30, 1, 10), x(107, 1, 10), x(184, 1, 10), x(261, 1, 10), x(338, 1, 10), x(402, 1, 10), x(426, 1, 10), x(445, 1, 10)\}} \{ \text{Faux1A1}(\text{True}, \\
& x(445, 1, 10), x(426, 1, 10), x(402, 1, 10), x(338, 1, 10), x(261, 1, 10), \\
& x(184, 1, 10), x(107, 1, 10), x(1, 1), x(30, 1, 10), 39), \text{Faux1A1}(\text{True}, \\
& y(8, 2), y(10, 1), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 162) \} \vee \\
& \{ \text{Faux2}(\text{False}, y(8, 1), x(426, 1, 10), x(402, 1, 10), x(338, 1, 10), x(261, 1, 10), \\
& x(184, 1, 10), x(107, 1, 10), x(1, 1), x(30, 1, 10), 40), \text{Faux2}(\text{False}, y(8, 1), \\
& y(10, 1), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 163) \} \wedge \\
& \forall_{\{x(47, 1, 2), x(124, 1, 2), x(201, 1, 2), x(278, 1, 2), x(355, 1, 2), x(409, 1, 2), x(432, 1, 2), x(449, 1, 2)\}} \{ \text{Faux2}(\text{True}, \\
& x(449, 1, 2), y(10, 1), x(432, 1, 2), x(409, 1, 2), x(355, 1, 2), \\
& x(278, 1, 2), x(201, 1, 2), x(124, 1, 2), x(47, 1, 2), 75), \text{Faux2}(\text{True}, \\
& y(8, 1), y(10, 1), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 163) \} \vee \\
& \{ \text{Faux3A3}(\text{False}, x(449, 1, 2), x(1, 1), x(432, 1, 2), x(409, 1, 2), x(355, 1, 2), \\
& x(278, 1, 2), x(201, 1, 2), x(124, 1, 2), x(47, 1, 2), 76), \text{Faux3A3}(\text{False}, \\
& y(8, 1), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 164) \} \wedge \\
& \forall_{\{x(48, 1, 2), x(125, 1, 2), x(202, 1, 2), x(279, 1, 2), x(356, 1, 2), x(410, 1, 2), x(433, 1, 2), x(450, 1, 2)\}} \{ \text{Faux3A3}(\text{True}, \\
& x(450, 1, 2), x(433, 1, 2), x(1, 1), x(410, 1, 2), x(356, 1, 2), \\
& x(279, 1, 2), x(202, 1, 2), x(125, 1, 2), x(48, 1, 2), 77), \text{Faux3A3}(\text{True}, \\
& y(8, 1), y(7), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 164) \} \vee \\
& \{ \text{Faux2}(\text{False}, x(450, 1, 2), x(433, 1, 2), y(10, 1), x(410, 1, 2), x(356, 1, 2), \\
& x(279, 1, 2), x(202, 1, 2), x(125, 1, 2), x(48, 1, 2), 78), \text{Faux2}(\text{False}, \\
& y(8, 1), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 165) \} \wedge \\
& \forall_{\{x(49, 1, 2), x(126, 1, 2), x(203, 1, 2), x(280, 1, 2), x(357, 1, 2), x(411, 1, 2), x(434, 1, 2)\}} \{ \text{Faux4}(\text{True}, \\
& x(434, 1, 2), y(10, 1), x(411, 1, 2), x(357, 1, 2), x(280, 1, 2), \\
& x(203, 1, 2), x(126, 1, 2), x(49, 1, 2), 79), \text{Faux4}(\text{True}, y(8, 1), \\
& y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 166) \} \vee \\
& \{ \text{Faux5A3}(\text{False}, x(434, 1, 2), x(1, 1), x(411, 1, 2), x(357, 1, 2), \\
& x(280, 1, 2), x(203, 1, 2), x(126, 1, 2), x(49, 1, 2), 80), \text{Faux5A3}(\text{False}, \\
& y(8, 1), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 167) \} \wedge
\end{aligned}$$

$$\begin{aligned}
& \forall_{\{x(23,1,5), x(100,1,5), x(177,1,5), x(254,1,5), x(331,1,5)\}} \{P(True, y(8, 1), x(331, 1, 5), \\
& \quad x(254, 1, 5), x(177, 1, 5), x(100, 1, 5), x(23, 1, 5), 25), \\
& \quad P(True, y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), 170) \} \vee \{P1(False, \\
& \quad y(11, 1), x(331, 1, 5), x(254, 1, 5), x(177, 1, 5), x(100, 1, 5), x(23, 1, 5), 26), \\
& \quad P1(False, y(11, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), 171) \} \} \wedge \\
& \forall_{\{x(25,1,5), x(102,1,5), x(179,1,5), x(256,1,5), x(333,1,5)\}} \{P1(True, y(11, 1), x(333, 1, 5), \\
& \quad x(256, 1, 5), x(179, 1, 5), x(102, 1, 5), x(25, 1, 5), 29), \\
& \quad P1(True, y(11, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), 171) \} \vee \\
& \quad \{FauxR(False, y(11, 1), x(333, 1, 5), x(256, 1, 5), \\
& \quad x(179, 1, 5), x(102, 1, 5), x(25, 1, 5), y(5), 30), \\
& \quad FauxR(False, y(11, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 172) \} \} \wedge \\
& \forall_{\{x(46,1,5), x(123,1,5), x(200,1,5), x(277,1,5), x(354,1,5), x(408,1,5), x(431,1,5), x(448,1,5)\}} \{Faux1A3( \\
& \quad True, x(448, 1, 5), x(431, 1, 5), x(408, 1, 5), x(354, 1, 5), x(277, 1, 5), \\
& \quad x(200, 1, 5), x(123, 1, 5), x(1, 1), x(46, 1, 5), 73), Faux1A3(True, y(10, 2), \\
& \quad y(11, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 173) \} \vee \\
& \quad \{Faux2(False, y(10, 1), x(431, 1, 5), x(408, 1, 5), x(354, 1, 5), x(277, 1, 5), \\
& \quad x(200, 1, 5), x(123, 1, 5), x(1, 1), x(46, 1, 5), 74), Faux2(False, y(10, 1), \\
& \quad y(11, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 174) \} \} \wedge \\
& \forall_{\{x(13,1,2), x(90,1,2), x(167,1,2), x(244,1,2), x(321,1,2), x(397,1,2), x(422,1,2), x(443,1,2)\}} \{Faux2( \\
& \quad True, x(443, 1, 2), y(11, 1), x(422, 1, 2), x(397, 1, 2), x(321, 1, 2), \\
& \quad x(244, 1, 2), x(167, 1, 2), x(90, 1, 2), x(13, 1, 2), 5), Faux2(True, y(10, 1), \\
& \quad y(11, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 174) \} \vee \\
& \quad \{Faux3A2(False, x(443, 1, 2), x(1, 1), x(422, 1, 2), x(397, 1, 2), x(321, 1, 2), \\
& \quad x(244, 1, 2), x(167, 1, 2), x(90, 1, 2), x(13, 1, 2), 6), Faux3A2(False, \\
& \quad y(10, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 175) \} \} \wedge \\
& \forall_{\{x(14,1,2), x(91,1,2), x(168,1,2), x(245,1,2), x(322,1,2), x(398,1,2), x(423,1,2), x(444,1,2)\}} \{Faux3A2( \\
& \quad True, x(444, 1, 2), x(423, 1, 2), x(1, 1), x(398, 1, 2), x(322, 1, 2), \\
& \quad x(245, 1, 2), x(168, 1, 2), x(91, 1, 2), x(14, 1, 2), 7), Faux3A2(True, \\
& \quad y(10, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 175) \} \vee \\
& \quad \{Faux2(False, x(444, 1, 2), x(423, 1, 2), y(11, 1), x(398, 1, 2), x(322, 1, 2), \\
& \quad x(245, 1, 2), x(168, 1, 2), x(91, 1, 2), x(14, 1, 2), 8), Faux2(False, y(10, 1), \\
& \quad y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 176) \} \} \wedge \\
& \forall_{\{x(15,1,2), x(92,1,2), x(169,1,2), x(246,1,2), x(323,1,2), x(399,1,2), x(424,1,2)\}} \{Faux4(True, \\
& \quad x(424, 1, 2), y(11, 1), x(399, 1, 2), x(323, 1, 2), x(246, 1, 2), \\
& \quad x(169, 1, 2), x(92, 1, 2), x(15, 1, 2), 9), Faux4(True, y(10, 1), \\
& \quad y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 177) \} \vee \\
& \quad \{Faux5A2(False, x(424, 1, 2), x(1, 1), x(399, 1, 2), x(323, 1, 2), \\
& \quad x(246, 1, 2), x(169, 1, 2), x(92, 1, 2), x(15, 1, 2), 10), Faux5A2(False, \\
& \quad y(10, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 178) \} \} \wedge \\
& \forall_{\{x(58,1,3), x(135,1,3), x(212,1,3), x(289,1,3), x(366,1,3)\}} \{P1(True, y(10, 1), x(366, 1, 3), \\
& \quad x(289, 1, 3), x(212, 1, 3), x(135, 1, 3), x(58, 1, 3), 97), \\
& \quad P1(True, y(10, 1), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), 181) \} \vee
\end{aligned}$$

$\{FauxR(False, y(10, 1), x(366, 1, 3), x(289, 1, 3),$   
 $x(212, 1, 3), x(135, 1, 3), x(58, 1, 3), y(6), 98),$   
 $FauxR(False, y(10, 1), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 182)\} \wedge$   
 $\forall_{\{x(12, 1, 5), x(89, 1, 5), x(166, 1, 5), x(243, 1, 5), x(320, 1, 5), x(396, 1, 5), x(421, 1, 5), x(442, 1, 5)\}} \{Faux1A2($   
 $True, x(442, 1, 5), x(421, 1, 5), x(396, 1, 5), x(320, 1, 5), x(243, 1, 5),$   
 $x(166, 1, 5), x(89, 1, 5), x(1, 1), x(12, 1, 5), 3), Faux1A2(True, y(11, 2),$   
 $y(8, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 183)\} \vee$   
 $\{Faux2(False, y(11, 1), x(421, 1, 5), x(396, 1, 5), x(320, 1, 5), x(243, 1, 5),$   
 $x(166, 1, 5), x(89, 1, 5), x(1, 1), x(12, 1, 5), 4), Faux2(False, y(11, 1),$   
 $y(8, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 184)\} \wedge$   
 $\forall_{\{x(31, 1, 4), x(108, 1, 4), x(185, 1, 4), x(262, 1, 4), x(339, 1, 4), x(403, 1, 4), x(427, 1, 4), x(446, 1, 4)\}} \{Faux2($   
 $True, x(446, 1, 4), y(8, 1), x(427, 1, 4), x(403, 1, 4), x(339, 1, 4),$   
 $x(262, 1, 4), x(185, 1, 4), x(108, 1, 4), x(31, 1, 4), 41), Faux2(True,$   
 $y(11, 1), y(8, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 184)\} \vee$   
 $\{Faux3A1(False, x(446, 1, 4), x(1, 1), x(427, 1, 4), x(403, 1, 4), x(339, 1, 4),$   
 $x(262, 1, 4), x(185, 1, 4), x(108, 1, 4), x(31, 1, 4), 42), Faux3A1(False,$   
 $y(11, 1), y(7), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 185)\} \wedge$   
 $\forall_{\{x(32, 1, 4), x(109, 1, 4), x(186, 1, 4), x(263, 1, 4), x(340, 1, 4), x(404, 1, 4), x(428, 1, 4), x(447, 1, 4)\}} \{Faux3A1($   
 $True, x(447, 1, 4), x(428, 1, 4), x(1, 1), x(404, 1, 4), x(340, 1, 4),$   
 $x(263, 1, 4), x(186, 1, 4), x(109, 1, 4), x(32, 1, 4), 43), Faux3A1(True,$   
 $y(11, 1), y(7), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 185)\} \vee$   
 $\{Faux2(False, x(447, 1, 4), x(428, 1, 4), y(8, 1), x(404, 1, 4), x(340, 1, 4),$   
 $x(263, 1, 4), x(186, 1, 4), x(109, 1, 4), x(32, 1, 4), 44), Faux2(False,$   
 $y(11, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 186)\} \wedge$   
 $\forall_{\{x(33, 1, 4), x(110, 1, 4), x(187, 1, 4), x(264, 1, 4), x(341, 1, 4), x(405, 1, 4), x(429, 1, 4)\}} \{Faux4(True,$   
 $x(429, 1, 4), y(8, 1), x(405, 1, 4), x(341, 1, 4), x(264, 1, 4),$   
 $x(187, 1, 4), x(110, 1, 4), x(33, 1, 4), 45), Faux4(True, y(11, 1),$   
 $y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 187)\} \vee$   
 $\{Faux5A1(False, x(429, 1, 4), x(1, 1), x(405, 1, 4), x(341, 1, 4),$   
 $x(264, 1, 4), x(187, 1, 4), x(110, 1, 4), x(33, 1, 4), 46), Faux5A1(False,$   
 $y(11, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 188)\} \wedge$   
 $\forall_{\{x(24, 1, 3), x(101, 1, 3), x(178, 1, 3), x(255, 1, 3), x(332, 1, 3)\}} \{P(True, y(11, 1), x(332, 1, 3),$   
 $x(255, 1, 3), x(178, 1, 3), x(101, 1, 3), x(24, 1, 3), 27),$   
 $P(True, y(11, 1), y(8, 2), y(11, 1), y(11, 1), y(10, 1), y(7), 191)\} \vee$   
 $\{FauxR(False, y(11, 1), x(332, 1, 3), x(255, 1, 3),$   
 $x(178, 1, 3), x(101, 1, 3), x(24, 1, 3), y(6), 28),$   
 $FauxR(False, y(11, 1), y(8, 2), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 192)\} \wedge$   
 $\forall_{\{x(30, 1, 11), x(107, 1, 11), x(184, 1, 11), x(261, 1, 11), x(338, 1, 11), x(402, 1, 11), x(426, 1, 11), x(445, 1, 11)\}} \{Faux1A1($   
 $True, x(445, 1, 11), x(426, 1, 11), x(402, 1, 11), x(338, 1, 11), x(261, 1, 11),$   
 $x(184, 1, 11), x(107, 1, 11), x(1, 1), x(30, 1, 11), 39), Faux1A1(True,$   
 $y(8, 2), y(9, 1), y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 193)\} \vee$   
 $\{Faux2(False, y(8, 1), x(426, 1, 11), x(402, 1, 11), x(338, 1, 11), x(261, 1, 11),$

$$\begin{aligned}
& \times(184, 1, 11), \times(107, 1, 11), \times(1, 1), \times(30, 1, 11), 40), \text{Faux2}(\text{False}, y(8, 1), \\
& y(9, 1), y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 194)\}) \wedge \\
\forall_{\{x(64, 1, 2), x(141, 1, 2), x(218, 1, 2), x(295, 1, 2), x(372, 1, 2), x(415, 1, 2), x(437, 1, 2), x(452, 1, 2)\}} & (\{\text{Faux2}( \\
& \text{True}, x(452, 1, 2), y(9, 1), x(437, 1, 2), x(415, 1, 2), x(372, 1, 2), \\
& x(295, 1, 2), x(218, 1, 2), x(141, 1, 2), x(64, 1, 2), 109), \text{Faux2}(\text{True}, \\
& y(8, 1), y(9, 1), y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 194)\} \vee \\
& \{\text{Faux3A4}(\text{False}, x(452, 1, 2), x(1, 1), x(437, 1, 2), x(415, 1, 2), x(372, 1, 2), \\
& x(295, 1, 2), x(218, 1, 2), x(141, 1, 2), x(64, 1, 2), 110), \text{Faux3A4}(\text{False}, \\
& y(8, 1), y(7), y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 195)\}) \wedge \\
\forall_{\{x(65, 1, 2), x(142, 1, 2), x(219, 1, 2), x(296, 1, 2), x(373, 1, 2), x(416, 1, 2), x(438, 1, 2), x(453, 1, 2)\}} & (\{\text{Faux3A4}( \\
& \text{True}, x(453, 1, 2), x(438, 1, 2), x(1, 1), x(416, 1, 2), x(373, 1, 2), \\
& x(296, 1, 2), x(219, 1, 2), x(142, 1, 2), x(65, 1, 2), 111), \text{Faux3A4}(\text{True}, \\
& y(8, 1), y(7), y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 195)\} \vee \\
& \{\text{Faux2}(\text{False}, x(453, 1, 2), x(438, 1, 2), y(9, 1), x(416, 1, 2), x(373, 1, 2), \\
& x(296, 1, 2), x(219, 1, 2), x(142, 1, 2), x(65, 1, 2), 112), \text{Faux2}(\text{False}, \\
& y(8, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 196)\}) \wedge \\
\forall_{\{x(66, 1, 2), x(143, 1, 2), x(220, 1, 2), x(297, 1, 2), x(374, 1, 2), x(417, 1, 2), x(439, 1, 2)\}} & (\{\text{Faux4}(\text{True}, \\
& x(439, 1, 2), y(9, 1), x(417, 1, 2), x(374, 1, 2), x(297, 1, 2), \\
& x(220, 1, 2), x(143, 1, 2), x(66, 1, 2), 113), \text{Faux4}(\text{True}, y(8, 1), \\
& y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 197)\} \vee \\
& \{\text{Faux5A4}(\text{False}, x(439, 1, 2), x(1, 1), x(417, 1, 2), x(374, 1, 2), \\
& x(297, 1, 2), x(220, 1, 2), x(143, 1, 2), x(66, 1, 2), 114), \text{Faux5A4}(\text{False}, \\
& y(8, 1), y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 198)\}) \wedge \\
\forall_{\{x(23, 1, 6), x(100, 1, 6), x(177, 1, 6), x(254, 1, 6), x(331, 1, 6)\}} & (\{\text{P}(\text{True}, y(8, 1), x(331, 1, 6), \\
& x(254, 1, 6), x(177, 1, 6), x(100, 1, 6), x(23, 1, 6), 25), \\
& \text{P}(\text{True}, y(8, 1), y(9, 2), y(11, 1), y(10, 1), y(11, 1), y(7), 201)\} \vee \{\text{P1}(\text{False}, \\
& y(11, 1), x(331, 1, 6), x(254, 1, 6), x(177, 1, 6), x(100, 1, 6), x(23, 1, 6), 26), \\
& \text{P1}(\text{False}, y(11, 1), y(9, 2), y(11, 1), y(10, 1), y(11, 1), y(7), 202)\}) \wedge \\
\forall_{\{x(25, 1, 6), x(102, 1, 6), x(179, 1, 6), x(256, 1, 6), x(333, 1, 6)\}} & (\{\text{P1}(\text{True}, y(11, 1), x(333, 1, 6), \\
& x(256, 1, 6), x(179, 1, 6), x(102, 1, 6), x(25, 1, 6), 29), \\
& \text{P1}(\text{True}, y(11, 1), y(9, 2), y(11, 1), y(10, 1), y(11, 1), y(7), 202)\} \vee \\
& \{\text{FauxR}(\text{False}, y(11, 1), x(333, 1, 6), x(256, 1, 6), \\
& x(179, 1, 6), x(102, 1, 6), x(25, 1, 6), y(5), 30), \\
& \text{FauxR}(\text{False}, y(11, 1), y(9, 2), y(11, 1), y(10, 1), y(11, 1), y(7), y(5), 203)\}) \wedge \\
\forall_{\{x(63, 1, 5), x(140, 1, 5), x(217, 1, 5), x(294, 1, 5), x(371, 1, 5), x(414, 1, 5), x(436, 1, 5), x(451, 1, 5)\}} & (\{\text{Faux1A4}( \\
& \text{True}, x(451, 1, 5), x(436, 1, 5), x(414, 1, 5), x(371, 1, 5), x(294, 1, 5), \\
& x(217, 1, 5), x(140, 1, 5), x(1, 1), x(63, 1, 5), 107), \text{Faux1A4}(\text{True}, y(9, 2), \\
& y(11, 1), y(7), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 204)\} \vee \\
& \{\text{Faux2}(\text{False}, y(9, 1), x(436, 1, 5), x(414, 1, 5), x(371, 1, 5), x(294, 1, 5), \\
& x(217, 1, 5), x(140, 1, 5), x(1, 1), x(63, 1, 5), 108), \text{Faux2}(\text{False}, y(9, 1), \\
& y(11, 1), y(7), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 205)\}) \wedge \\
\forall_{\{x(13, 1, 3), x(90, 1, 3), x(167, 1, 3), x(244, 1, 3), x(321, 1, 3), x(397, 1, 3), x(422, 1, 3), x(443, 1, 3)\}} & (\{\text{Faux2}( \\
\end{aligned}$$

True, x(443, 1, 3), y(11, 1), x(422, 1, 3), x(397, 1, 3), x(321, 1, 3),  
 x(244, 1, 3), x(167, 1, 3), x(90, 1, 3), x(13, 1, 3), 5), Faux2(True, y(9, 1),  
 y(11, 1), y(7), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 205}) v  
{Faux3A2(False, x(443, 1, 3), x(1, 1), x(422, 1, 3), x(397, 1, 3), x(321, 1, 3),  
x(244, 1, 3), x(167, 1, 3), x(90, 1, 3), x(13, 1, 3), 6), Faux3A2(False,  
y(9, 1), y(7), y(7), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 206})} w  
 $\forall_{\{x(14,1,3), x(91,1,3), x(168,1,3), x(245,1,3), x(322,1,3), x(398,1,3), x(423,1,3), x(444,1,3)\}} \{$  {Faux3A2(  
True, x(444, 1, 3), x(423, 1, 3), x(1, 1), x(398, 1, 3), x(322, 1, 3),  
x(245, 1, 3), x(168, 1, 3), x(91, 1, 3), x(14, 1, 3), 7), Faux3A2(True,  
y(9, 1), y(7), y(7), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 206}) v  
{Faux2(False, x(444, 1, 3), x(423, 1, 3), y(11, 1), x(398, 1, 3), x(322, 1, 3),  
x(245, 1, 3), x(168, 1, 3), x(91, 1, 3), x(14, 1, 3), 8), Faux2(False, y(9, 1),  
y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 207})} w  
 $\forall_{\{x(15,1,3), x(92,1,3), x(169,1,3), x(246,1,3), x(323,1,3), x(399,1,3), x(424,1,3)\}} \{$  {Faux4(True,  
x(424, 1, 3), y(11, 1), x(399, 1, 3), x(323, 1, 3), x(246, 1, 3),  
x(169, 1, 3), x(92, 1, 3), x(15, 1, 3), 9), Faux4(True, y(9, 1),  
y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 208}) v  
{Faux5A2(False, x(424, 1, 3), x(1, 1), x(399, 1, 3), x(323, 1, 3),  
x(246, 1, 3), x(169, 1, 3), x(92, 1, 3), x(15, 1, 3), 10), Faux5A2(False,  
y(9, 1), y(7), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 209})} w  
 $\forall_{\{x(75,1,3), x(152,1,3), x(229,1,3), x(306,1,3), x(383,1,3)\}} \{$  {P1(True, y(9, 1), x(383, 1, 3),  
x(306, 1, 3), x(229, 1, 3), x(152, 1, 3), x(75, 1, 3), 131),  
P1(True, y(9, 1), y(11, 2), y(10, 1), y(11, 1), y(11, 1), y(7), 212}) v  
{FauxR(False, y(9, 1), x(383, 1, 3), x(306, 1, 3), x(229, 1, 3),  
x(152, 1, 3), x(75, 1, 3), y(6), 132),  
FauxR(False, y(9, 1), y(11, 2), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 213})} w  
 $\forall_{\{x(12,1,6), x(89,1,6), x(166,1,6), x(243,1,6), x(320,1,6), x(396,1,6), x(421,1,6), x(442,1,6)\}} \{$  {Faux1A2(  
True, x(442, 1, 6), x(421, 1, 6), x(396, 1, 6), x(320, 1, 6), x(243, 1, 6),  
x(166, 1, 6), x(89, 1, 6), x(1, 1), x(12, 1, 6), 3), Faux1A2(True, y(11, 2),  
y(11, 1), y(7), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 214}) v  
{Faux2(False, y(11, 1), x(421, 1, 6), x(396, 1, 6), x(320, 1, 6), x(243, 1, 6),  
x(166, 1, 6), x(89, 1, 6), x(1, 1), x(12, 1, 6), 4), Faux2(False, y(11, 1),  
y(11, 1), y(7), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 215})} w  
 $\forall_{\{x(13,1,4), x(90,1,4), x(167,1,4), x(244,1,4), x(321,1,4), x(397,1,4), x(422,1,4), x(443,1,4)\}} \{$  {Faux2(  
True, x(443, 1, 4), y(11, 1), x(422, 1, 4), x(397, 1, 4), x(321, 1, 4),  
x(244, 1, 4), x(167, 1, 4), x(90, 1, 4), x(13, 1, 4), 5), Faux2(True, y(11, 1),  
y(11, 1), y(7), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 215}) v  
{Faux3A2(False, x(443, 1, 4), x(1, 1), x(422, 1, 4), x(397, 1, 4), x(321, 1, 4),  
x(244, 1, 4), x(167, 1, 4), x(90, 1, 4), x(13, 1, 4), 6), Faux3A2(False,  
y(11, 1), y(7), y(7), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 216})} w  
 $\forall_{\{x(14,1,4), x(91,1,4), x(168,1,4), x(245,1,4), x(322,1,4), x(398,1,4), x(423,1,4), x(444,1,4)\}} \{$  {Faux3A2(  
True, x(444, 1, 4), x(423, 1, 4), x(1, 1), x(398, 1, 4), x(322, 1, 4),

$x(245, 1, 4), x(168, 1, 4), x(91, 1, 4), x(14, 1, 4), 7), \text{Faux3A2}(\text{True},$   
 $y(11, 1), y(7), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 216\}) \vee$   
 $\{\text{Faux2}(\text{False}, x(444, 1, 4), x(423, 1, 4), y(11, 1), x(398, 1, 4), x(322, 1, 4),$   
 $x(245, 1, 4), x(168, 1, 4), x(91, 1, 4), x(14, 1, 4), 8), \text{Faux2}(\text{False}, y(11, 1),$   
 $y(7), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 217\})\} \wedge$   
 $\forall_{\{x(15, 1, 4), x(92, 1, 4), x(169, 1, 4), x(246, 1, 4), x(323, 1, 4), x(399, 1, 4), x(424, 1, 4)\}} (\{\text{Faux4}(\text{True},$   
 $x(424, 1, 4), y(11, 1), x(399, 1, 4), x(323, 1, 4), x(246, 1, 4),$   
 $x(169, 1, 4), x(92, 1, 4), x(15, 1, 4), 9), \text{Faux4}(\text{True}, y(11, 1),$   
 $y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 218\}) \vee$   
 $\{\text{Faux5A2}(\text{False}, x(424, 1, 4), x(1, 1), x(399, 1, 4), x(323, 1, 4),$   
 $x(246, 1, 4), x(169, 1, 4), x(92, 1, 4), x(15, 1, 4), 10), \text{Faux5A2}(\text{False},$   
 $y(11, 1), y(7), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 219\})\} \wedge$   
 $\forall_{\{x(24, 1, 4), x(101, 1, 4), x(178, 1, 4), x(255, 1, 4), x(332, 1, 4)\}} (\{\text{P}(\text{True}, y(11, 1), x(332, 1, 4),$   
 $x(255, 1, 4), x(178, 1, 4), x(101, 1, 4), x(24, 1, 4), 27),$   
 $\text{P}(\text{True}, y(11, 1), y(11, 2), y(11, 1), y(11, 1), y(9, 1), y(7), 222\}) \vee$   
 $\{\text{FauxR}(\text{False}, y(11, 1), x(332, 1, 4), x(255, 1, 4),$   
 $x(178, 1, 4), x(101, 1, 4), x(24, 1, 4), y(6), 28),$   
 $\text{FauxR}(\text{False}, y(11, 1), y(11, 2), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 223\})\} \wedge$   
 $\forall_{\{x(12, 1, 7), x(89, 1, 7), x(166, 1, 7), x(243, 1, 7), x(320, 1, 7), x(396, 1, 7), x(421, 1, 7), x(442, 1, 7)\}} (\{\text{Faux1A2}(\text{True},$   
 $x(442, 1, 7), x(421, 1, 7), x(396, 1, 7), x(320, 1, 7), x(243, 1, 7),$   
 $x(166, 1, 7), x(89, 1, 7), x(1, 1), x(12, 1, 7), 3), \text{Faux1A2}(\text{True}, y(11, 2),$   
 $y(10, 1), y(7), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 224\}) \vee$   
 $\{\text{Faux2}(\text{False}, y(11, 1), x(421, 1, 7), x(396, 1, 7), x(320, 1, 7), x(243, 1, 7),$   
 $x(166, 1, 7), x(89, 1, 7), x(1, 1), x(12, 1, 7), 4), \text{Faux2}(\text{False}, y(11, 1),$   
 $y(10, 1), y(7), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 225\})\} \wedge$   
 $\forall_{\{x(47, 1, 3), x(124, 1, 3), x(201, 1, 3), x(278, 1, 3), x(355, 1, 3), x(409, 1, 3), x(432, 1, 3), x(449, 1, 3)\}} (\{\text{Faux2}(\text{True},$   
 $x(449, 1, 3), y(10, 1), x(432, 1, 3), x(409, 1, 3), x(355, 1, 3),$   
 $x(278, 1, 3), x(201, 1, 3), x(124, 1, 3), x(47, 1, 3), 75), \text{Faux2}(\text{True}, y(11, 1),$   
 $y(10, 1), y(7), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 225\}) \vee$   
 $\{\text{Faux3A3}(\text{False}, x(449, 1, 3), x(1, 1), x(432, 1, 3), x(409, 1, 3), x(355, 1, 3),$   
 $x(278, 1, 3), x(201, 1, 3), x(124, 1, 3), x(47, 1, 3), 76), \text{Faux3A3}(\text{False},$   
 $y(11, 1), y(7), y(7), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 226\})\} \wedge$   
 $\forall_{\{x(48, 1, 3), x(125, 1, 3), x(202, 1, 3), x(279, 1, 3), x(356, 1, 3), x(410, 1, 3), x(433, 1, 3), x(450, 1, 3)\}} (\{\text{Faux3A3}(\text{True},$   
 $x(450, 1, 3), x(433, 1, 3), x(1, 1), x(410, 1, 3), x(356, 1, 3),$   
 $x(279, 1, 3), x(202, 1, 3), x(125, 1, 3), x(48, 1, 3), 77), \text{Faux3A3}(\text{True},$   
 $y(11, 1), y(7), y(7), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 226\}) \vee$   
 $\{\text{Faux2}(\text{False}, x(450, 1, 3), x(433, 1, 3), y(10, 1), x(410, 1, 3), x(356, 1, 3),$   
 $x(279, 1, 3), x(202, 1, 3), x(125, 1, 3), x(48, 1, 3), 78), \text{Faux2}(\text{False},$   
 $y(11, 1), y(7), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 227\})\} \wedge$   
 $\forall_{\{x(49, 1, 3), x(126, 1, 3), x(203, 1, 3), x(280, 1, 3), x(357, 1, 3), x(411, 1, 3), x(434, 1, 3)\}} (\{\text{Faux4}(\text{True},$   
 $x(434, 1, 3), y(10, 1), x(411, 1, 3), x(357, 1, 3), x(280, 1, 3),$   
 $x(203, 1, 3), x(126, 1, 3), x(49, 1, 3), 79), \text{Faux4}(\text{True}, y(11, 1),$

$y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 228\} \vee$   
 $\{Faux5A3(False, x(434, 1, 3), x(1, 1), x(411, 1, 3), x(357, 1, 3),$   
 $x(280, 1, 3), x(203, 1, 3), x(126, 1, 3), x(49, 1, 3), 80), Faux5A3(False,$   
 $y(11, 1), y(7), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 229)\}) \wedge$   
 $\forall_{\{x(24, 1, 5), x(101, 1, 5), x(178, 1, 5), x(255, 1, 5), x(332, 1, 5)\}} (\{P(True, y(11, 1), x(332, 1, 5),$   
 $x(255, 1, 5), x(178, 1, 5), x(101, 1, 5), x(24, 1, 5), 27),$   
 $P(True, y(11, 1), y(10, 2), y(11, 1), y(9, 1), y(11, 1), y(7), 232)\} \vee$   
 $\{FauxR(False, y(11, 1), x(332, 1, 5), x(255, 1, 5),$   
 $x(178, 1, 5), x(101, 1, 5), x(24, 1, 5), y(6), 28),$   
 $FauxR(False, y(11, 1), y(10, 2), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 233)\}) \wedge$   
 $\forall_{\{x(46, 1, 6), x(123, 1, 6), x(200, 1, 6), x(277, 1, 6), x(354, 1, 6), x(408, 1, 6), x(431, 1, 6), x(448, 1, 6)\}} (\{Faux1A3($   
 $True, x(448, 1, 6), x(431, 1, 6), x(408, 1, 6), x(354, 1, 6), x(277, 1, 6),$   
 $x(200, 1, 6), x(123, 1, 6), x(1, 1), x(46, 1, 6), 73), Faux1A3(True, y(10, 2),$   
 $y(11, 1), y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 234)\} \vee$   
 $\{Faux2(False, y(10, 1), x(431, 1, 6), x(408, 1, 6), x(354, 1, 6), x(277, 1, 6),$   
 $x(200, 1, 6), x(123, 1, 6), x(1, 1), x(46, 1, 6), 74), Faux2(False, y(10, 1),$   
 $y(11, 1), y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 235)\}) \wedge$   
 $\forall_{\{x(13, 1, 5), x(90, 1, 5), x(167, 1, 5), x(244, 1, 5), x(321, 1, 5), x(397, 1, 5), x(422, 1, 5), x(443, 1, 5)\}} (\{Faux2($   
 $True, x(443, 1, 5), y(11, 1), x(422, 1, 5), x(397, 1, 5), x(321, 1, 5),$   
 $x(244, 1, 5), x(167, 1, 5), x(90, 1, 5), x(13, 1, 5), 5), Faux2(True, y(10, 1),$   
 $y(11, 1), y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 235)\} \vee$   
 $\{Faux3A2(False, x(443, 1, 5), x(1, 1), x(422, 1, 5), x(397, 1, 5), x(321, 1, 5),$   
 $x(244, 1, 5), x(167, 1, 5), x(90, 1, 5), x(13, 1, 5), 6), Faux3A2(False,$   
 $y(10, 1), y(7), y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 236)\}) \wedge$   
 $\forall_{\{x(14, 1, 5), x(91, 1, 5), x(168, 1, 5), x(245, 1, 5), x(322, 1, 5), x(398, 1, 5), x(423, 1, 5), x(444, 1, 5)\}} (\{Faux3A2($   
 $True, x(444, 1, 5), x(423, 1, 5), x(1, 1), x(398, 1, 5), x(322, 1, 5),$   
 $x(245, 1, 5), x(168, 1, 5), x(91, 1, 5), x(14, 1, 5), 7), Faux3A2(True,$   
 $y(10, 1), y(7), y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 236)\} \vee$   
 $\{Faux2(False, x(444, 1, 5), x(423, 1, 5), y(11, 1), x(398, 1, 5), x(322, 1, 5),$   
 $x(245, 1, 5), x(168, 1, 5), x(91, 1, 5), x(14, 1, 5), 8), Faux2(False, y(10, 1),$   
 $y(7), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 237)\}) \wedge$   
 $\forall_{\{x(15, 1, 5), x(92, 1, 5), x(169, 1, 5), x(246, 1, 5), x(323, 1, 5), x(399, 1, 5), x(424, 1, 5)\}} (\{Faux4(True,$   
 $x(424, 1, 5), y(11, 1), x(399, 1, 5), x(323, 1, 5), x(246, 1, 5),$   
 $x(169, 1, 5), x(92, 1, 5), x(15, 1, 5), 9), Faux4(True, y(10, 1),$   
 $y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 238)\} \vee$   
 $\{Faux5A2(False, x(424, 1, 5), x(1, 1), x(399, 1, 5), x(323, 1, 5),$   
 $x(246, 1, 5), x(169, 1, 5), x(92, 1, 5), x(15, 1, 5), 10), Faux5A2(False,$   
 $y(10, 1), y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 239)\}) \wedge$   
 $\forall_{\{x(57, 1, 2), x(134, 1, 2), x(211, 1, 2), x(288, 1, 2), x(365, 1, 2)\}} (\{P(True, y(10, 1), x(365, 1, 2),$   
 $x(288, 1, 2), x(211, 1, 2), x(134, 1, 2), x(57, 1, 2), 95),$   
 $P(True, y(10, 1), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), 242)\} \vee$   
 $\{FauxR(False, y(10, 1), x(365, 1, 2), x(288, 1, 2),$

$$\begin{aligned}
& \times(211, 1, 2), \times(134, 1, 2), \times(57, 1, 2), y(2), 96), \\
& \text{FauxR(False, } y(10, 1), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(2), 243)\}) \wedge \\
& \forall_{\{x(12, 1, 8), x(89, 1, 8), x(166, 1, 8), x(243, 1, 8), x(320, 1, 8), x(396, 1, 8), x(421, 1, 8), x(442, 1, 8)\}} (\{\text{Faux1A2}(\text{True}, } \\
& \quad x(442, 1, 8), x(421, 1, 8), x(396, 1, 8), x(320, 1, 8), x(243, 1, 8), \\
& \quad x(166, 1, 8), x(89, 1, 8), x(1, 1), x(12, 1, 8), 3), \text{Faux1A2}(\text{True}, y(11, 2), \\
& \quad y(11, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 244)\} \vee \\
& \quad \{\text{Faux2}(\text{False}, y(11, 1), x(421, 1, 8), x(396, 1, 8), x(320, 1, 8), x(243, 1, 8), \\
& \quad x(166, 1, 8), x(89, 1, 8), x(1, 1), x(12, 1, 8), 4), \text{Faux2}(\text{False}, y(11, 1), \\
& \quad y(11, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 245)\}) \wedge \\
& \forall_{\{x(13, 1, 6), x(90, 1, 6), x(167, 1, 6), x(244, 1, 6), x(321, 1, 6), x(397, 1, 6), x(422, 1, 6), x(443, 1, 6)\}} (\{\text{Faux2}(\text{True}, } \\
& \quad x(443, 1, 6), y(11, 1), x(422, 1, 6), x(397, 1, 6), x(321, 1, 6), \\
& \quad x(244, 1, 6), x(167, 1, 6), x(90, 1, 6), x(13, 1, 6), 5), \text{Faux2}(\text{True}, y(11, 1), \\
& \quad y(11, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 245)\} \vee \\
& \quad \{\text{Faux3A2}(\text{False}, x(443, 1, 6), x(1, 1), x(422, 1, 6), x(397, 1, 6), x(321, 1, 6), \\
& \quad x(244, 1, 6), x(167, 1, 6), x(90, 1, 6), x(13, 1, 6), 6), \text{Faux3A2}(\text{False}, \\
& \quad y(11, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 246)\}) \wedge \\
& \forall_{\{x(14, 1, 6), x(91, 1, 6), x(168, 1, 6), x(245, 1, 6), x(322, 1, 6), x(398, 1, 6), x(423, 1, 6), x(444, 1, 6)\}} (\{\text{Faux3A2}(\text{True}, } \\
& \quad x(444, 1, 6), x(423, 1, 6), x(1, 1), x(398, 1, 6), x(322, 1, 6), \\
& \quad x(245, 1, 6), x(168, 1, 6), x(91, 1, 6), x(14, 1, 6), 7), \text{Faux3A2}(\text{True}, \\
& \quad y(11, 1), y(7), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 246)\} \vee \\
& \quad \{\text{Faux2}(\text{False}, x(444, 1, 6), x(423, 1, 6), y(11, 1), x(398, 1, 6), x(322, 1, 6), \\
& \quad x(245, 1, 6), x(168, 1, 6), x(91, 1, 6), x(14, 1, 6), 8), \text{Faux2}(\text{False}, y(11, 1), \\
& \quad y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 247)\}) \wedge \\
& \forall_{\{x(15, 1, 6), x(92, 1, 6), x(169, 1, 6), x(246, 1, 6), x(323, 1, 6), x(399, 1, 6), x(424, 1, 6)\}} (\{\text{Faux4}(\text{True}, } \\
& \quad x(424, 1, 6), y(11, 1), x(399, 1, 6), x(323, 1, 6), x(246, 1, 6), \\
& \quad x(169, 1, 6), x(92, 1, 6), x(15, 1, 6), 9), \text{Faux4}(\text{True}, y(11, 1), \\
& \quad y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 248)\} \vee \\
& \quad \{\text{Faux5A2}(\text{False}, x(424, 1, 6), x(1, 1), x(399, 1, 6), x(323, 1, 6), \\
& \quad x(246, 1, 6), x(169, 1, 6), x(92, 1, 6), x(15, 1, 6), 10), \text{Faux5A2}(\text{False}, \\
& \quad y(11, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 249)\}) \wedge \\
& \forall_{\{x(26, 1, 3), x(103, 1, 3), x(180, 1, 3), x(257, 1, 3), x(334, 1, 3)\}} (\{\text{P4}(\text{True}, y(11, 1), x(334, 1, 3), } \\
& \quad x(257, 1, 3), x(180, 1, 3), x(103, 1, 3), x(26, 1, 3), 31), \\
& \quad \text{P4}(\text{True}, y(11, 1), y(11, 2), y(11, 1), y(11, 1), y(10, 1), y(7), 252)\} \vee \\
& \quad \{\text{P4}(\text{False}, y(8, 1), x(334, 1, 3), x(257, 1, 3), x(180, 1, 3), x(103, 1, 3), x(26, 1, \\
& \quad 3), 32), \text{P4}(\text{False}, y(8, 1), y(11, 2), y(11, 1), y(11, 1), y(10, 1), y(7), 253)\}) \wedge \\
& \forall_{\{x(42, 1, 4), x(119, 1, 4), x(196, 1, 4), x(273, 1, 4), x(350, 1, 4)\}} (\{\text{P4}(\text{True}, y(8, 1), x(350, 1, 4), } \\
& \quad x(273, 1, 4), x(196, 1, 4), x(119, 1, 4), x(42, 1, 4), 63), \\
& \quad \text{P4}(\text{True}, y(8, 1), y(11, 2), y(11, 1), y(11, 1), y(10, 1), y(7), 253)\} \vee \\
& \quad \{\text{FauxR}(\text{False}, y(8, 1), x(350, 1, 4), x(273, 1, 4), x(196, 1, 4), \\
& \quad x(119, 1, 4), x(42, 1, 4), y(2), 64), \\
& \quad \text{FauxR}(\text{False}, y(8, 1), y(11, 2), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 254)\}) \wedge \\
& \forall_{\{x(12, 1, 9), x(89, 1, 9), x(166, 1, 9), x(243, 1, 9), x(320, 1, 9), x(396, 1, 9), x(421, 1, 9), x(442, 1, 9)\}} (\{\text{Faux1A2}(\text{True}, }
\end{aligned}$$

True, x(442, 1, 9), x(421, 1, 9), x(396, 1, 9), x(320, 1, 9), x(243, 1, 9),  
 x(166, 1, 9), x(89, 1, 9), x(1, 1), x(12, 1, 9), 3), Faux1A2(True, y(11, 2),  
 y(9, 1), y(7), y(11, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 255)} v  
{Faux2(False, y(11, 1), x(421, 1, 9), x(396, 1, 9), x(320, 1, 9), x(243, 1, 9),  
x(166, 1, 9), x(89, 1, 9), x(1, 1), x(12, 1, 9), 4), Faux2(False, y(11, 1),  
y(9, 1), y(7), y(11, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 256)} w  
 $\forall_{\{x(64,1,3), x(141,1,3), x(218,1,3), x(295,1,3), x(372,1,3), x(415,1,3), x(437,1,3), x(452,1,3)\}} \{$  {Faux2(  
 True, x(452, 1, 3), y(9, 1), x(437, 1, 3), x(415, 1, 3), x(372, 1, 3),  
 x(295, 1, 3), x(218, 1, 3), x(141, 1, 3), x(64, 1, 3), 109), Faux2(True,  
 y(11, 1), y(9, 1), y(7), y(11, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 256)} v  
{Faux3A4(False, x(452, 1, 3), x(1, 1), x(437, 1, 3), x(415, 1, 3), x(372, 1, 3),  
x(295, 1, 3), x(218, 1, 3), x(141, 1, 3), x(64, 1, 3), 110), Faux3A4(False,  
y(11, 1), y(7), y(7), y(11, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 257)} w  
 $\forall_{\{x(65,1,3), x(142,1,3), x(219,1,3), x(296,1,3), x(373,1,3), x(416,1,3), x(438,1,3), x(453,1,3)\}} \{$  {Faux3A4(  
 True, x(453, 1, 3), x(438, 1, 3), x(1, 1), x(416, 1, 3), x(373, 1, 3),  
 x(296, 1, 3), x(219, 1, 3), x(142, 1, 3), x(65, 1, 3), 111), Faux3A4(True,  
 y(11, 1), y(7), y(7), y(11, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 257)} v  
{Faux2(False, x(453, 1, 3), x(438, 1, 3), y(9, 1), x(416, 1, 3), x(373, 1, 3),  
x(296, 1, 3), x(219, 1, 3), x(142, 1, 3), x(65, 1, 3), 112), Faux2(False,  
y(11, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 258)} w  
 $\forall_{\{x(66,1,3), x(143,1,3), x(220,1,3), x(297,1,3), x(374,1,3), x(417,1,3), x(439,1,3)\}} \{$  {Faux4(True,  
 x(439, 1, 3), y(9, 1), x(417, 1, 3), x(374, 1, 3), x(297, 1, 3),  
 x(220, 1, 3), x(143, 1, 3), x(66, 1, 3), 113), Faux4(True, y(11, 1),  
 y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 259)} v  
{Faux5A4(False, x(439, 1, 3), x(1, 1), x(417, 1, 3), x(374, 1, 3),  
x(297, 1, 3), x(220, 1, 3), x(143, 1, 3), x(66, 1, 3), 114), Faux5A4(False,  
y(11, 1), y(7), y(11, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 260)} w  
 $\forall_{\{x(26,1,4), x(103,1,4), x(180,1,4), x(257,1,4), x(334,1,4)\}} \{$  {P4(True, y(11, 1), x(334, 1, 4),  
 x(257, 1, 4), x(180, 1, 4), x(103, 1, 4), x(26, 1, 4), 31),  
 P4(True, y(11, 1), y(9, 2), y(11, 1), y(10, 1), y(8, 1), y(7), 263)} v  
{P4(False, y(8, 1), x(334, 1, 4), x(257, 1, 4), x(180, 1, 4), x(103, 1, 4), x(26,  
 1, 4), 32), P4(False, y(8, 1), y(9, 2), y(11, 1), y(10, 1), y(8, 1), y(7), 264)} w  
 $\forall_{\{x(42,1,5), x(119,1,5), x(196,1,5), x(273,1,5), x(350,1,5)\}} \{$  {P4(True, y(8, 1), x(350, 1, 5),  
 x(273, 1, 5), x(196, 1, 5), x(119, 1, 5), x(42, 1, 5), 63),  
 P4(True, y(8, 1), y(9, 2), y(11, 1), y(10, 1), y(8, 1), y(7), 264)} v  
{FauxR(False, y(8, 1), x(350, 1, 5), x(273, 1, 5), x(196, 1, 5),  
 x(119, 1, 5), x(42, 1, 5), y(2), 64),  
 FauxR(False, y(8, 1), y(9, 2), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 265)} w  
 $\forall_{\{x(63,1,6), x(140,1,6), x(217,1,6), x(294,1,6), x(371,1,6), x(414,1,6), x(436,1,6), x(451,1,6)\}} \{$  {Faux1A4(  
 True, x(451, 1, 6), x(436, 1, 6), x(414, 1, 6), x(371, 1, 6), x(294, 1, 6),  
 x(217, 1, 6), x(140, 1, 6), x(1, 1), x(63, 1, 6), 107), Faux1A4(True, y(9, 2),  
 y(11, 1), y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 266)} v

$\{Faux2(\text{False}, y(9, 1), x(436, 1, 6), x(414, 1, 6), x(371, 1, 6), x(294, 1, 6),$   
 $x(217, 1, 6), x(140, 1, 6), x(1, 1), x(63, 1, 6), 108), Faux2(\text{False}, y(9, 1),$   
 $y(11, 1), y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 267)\} \wedge$   
 $\forall_{\{x(13, 1, 7), x(90, 1, 7), x(167, 1, 7), x(244, 1, 7), x(321, 1, 7), x(397, 1, 7), x(422, 1, 7), x(443, 1, 7)\}} \{Faux2($   
 $\text{True}, x(443, 1, 7), y(11, 1), x(422, 1, 7), x(397, 1, 7), x(321, 1, 7),$   
 $x(244, 1, 7), x(167, 1, 7), x(90, 1, 7), x(13, 1, 7), 5), Faux2(\text{True}, y(9, 1),$   
 $y(11, 1), y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 267)\} \vee$   
 $\{Faux3A2(\text{False}, x(443, 1, 7), x(1, 1), x(422, 1, 7), x(397, 1, 7), x(321, 1, 7),$   
 $x(244, 1, 7), x(167, 1, 7), x(90, 1, 7), x(13, 1, 7), 6), Faux3A2(\text{False},$   
 $y(9, 1), y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 268)\} \wedge$   
 $\forall_{\{x(14, 1, 7), x(91, 1, 7), x(168, 1, 7), x(245, 1, 7), x(322, 1, 7), x(398, 1, 7), x(423, 1, 7), x(444, 1, 7)\}} \{Faux3A2($   
 $\text{True}, x(444, 1, 7), x(423, 1, 7), x(1, 1), x(398, 1, 7), x(322, 1, 7),$   
 $x(245, 1, 7), x(168, 1, 7), x(91, 1, 7), x(14, 1, 7), 7), Faux3A2(\text{True},$   
 $y(9, 1), y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 268)\} \vee$   
 $\{Faux2(\text{False}, x(444, 1, 7), x(423, 1, 7), y(11, 1), x(398, 1, 7), x(322, 1, 7),$   
 $x(245, 1, 7), x(168, 1, 7), x(91, 1, 7), x(14, 1, 7), 8), Faux2(\text{False}, y(9, 1),$   
 $y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 269)\} \wedge$   
 $\forall_{\{x(15, 1, 7), x(92, 1, 7), x(169, 1, 7), x(246, 1, 7), x(323, 1, 7), x(399, 1, 7), x(424, 1, 7)\}} \{Faux4(\text{True},$   
 $x(424, 1, 7), y(11, 1), x(399, 1, 7), x(323, 1, 7), x(246, 1, 7),$   
 $x(169, 1, 7), x(92, 1, 7), x(15, 1, 7), 9), Faux4(\text{True}, y(9, 1),$   
 $y(11, 1), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 270)\} \vee$   
 $\{Faux5A2(\text{False}, x(424, 1, 7), x(1, 1), x(399, 1, 7), x(323, 1, 7),$   
 $x(246, 1, 7), x(169, 1, 7), x(92, 1, 7), x(15, 1, 7), 10), Faux5A2(\text{False},$   
 $y(9, 1), y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 271)\} \wedge$   
 $\forall_{\{x(76, 1, 2), x(153, 1, 2), x(230, 1, 2), x(307, 1, 2), x(384, 1, 2)\}} \{P4(\text{True}, y(9, 1), x(384, 1, 2),$   
 $x(307, 1, 2), x(230, 1, 2), x(153, 1, 2), x(76, 1, 2), 133),$   
 $P4(\text{True}, y(9, 1), y(11, 2), y(10, 1), y(8, 1), y(8, 1), y(7), 274)\} \vee$   
 $\{FauxR(\text{False}, y(9, 1), x(384, 1, 2), x(307, 1, 2), x(230, 1, 2),$   
 $x(153, 1, 2), x(76, 1, 2), y(2), 134),$   
 $FauxR(\text{False}, y(9, 1), y(11, 2), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 275)\} \wedge$   
 $\forall_{\{x(12, 1, 10), x(89, 1, 10), x(166, 1, 10), x(243, 1, 10), x(320, 1, 10), x(396, 1, 10), x(421, 1, 10), x(442, 1, 10)\}} \{Faux1A2($   
 $\text{True}, x(442, 1, 10), x(421, 1, 10), x(396, 1, 10), x(320, 1, 10), x(243, 1, 10),$   
 $x(166, 1, 10), x(89, 1, 10), x(1, 1), x(12, 1, 10), 3), Faux1A2(\text{True},$   
 $y(11, 2), y(11, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 276)\} \vee$   
 $\{Faux2(\text{False}, y(11, 1), x(421, 1, 10), x(396, 1, 10), x(320, 1, 10),$   
 $x(243, 1, 10), x(166, 1, 10), x(89, 1, 10), x(1, 1), x(12, 1, 10), 4), Faux2(\text{False},$   
 $y(11, 1), y(11, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 277)\} \wedge$   
 $\forall_{\{x(13, 1, 8), x(90, 1, 8), x(167, 1, 8), x(244, 1, 8), x(321, 1, 8), x(397, 1, 8), x(422, 1, 8), x(443, 1, 8)\}} \{Faux2($   
 $\text{True}, x(443, 1, 8), y(11, 1), x(422, 1, 8), x(397, 1, 8), x(321, 1, 8),$   
 $x(244, 1, 8), x(167, 1, 8), x(90, 1, 8), x(13, 1, 8), 5), Faux2(\text{True}, y(11, 1),$   
 $y(11, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 277)\} \vee$   
 $\{Faux3A2(\text{False}, x(443, 1, 8), x(1, 1), x(422, 1, 8), x(397, 1, 8), x(321, 1, 8),$

$x(244, 1, 8), x(167, 1, 8), x(90, 1, 8), x(13, 1, 8), 6), \text{Faux3A2}(\text{False},$   
 $y(11, 1), y(7), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 278)\}) \wedge$   
 $\forall_{\{x(14, 1, 8), x(91, 1, 8), x(168, 1, 8), x(245, 1, 8), x(322, 1, 8), x(398, 1, 8), x(423, 1, 8), x(444, 1, 8)\}} (\{\text{Faux3A2}($   
 $\text{True}, x(444, 1, 8), x(423, 1, 8), x(1, 1), x(398, 1, 8), x(322, 1, 8),$   
 $x(245, 1, 8), x(168, 1, 8), x(91, 1, 8), x(14, 1, 8), 7), \text{Faux3A2}(\text{True},$   
 $y(11, 1), y(7), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 278)\}) \vee$   
 $\{\text{Faux2}(\text{False}, x(444, 1, 8), x(423, 1, 8), y(11, 1), x(398, 1, 8), x(322, 1, 8),$   
 $x(245, 1, 8), x(168, 1, 8), x(91, 1, 8), x(14, 1, 8), 8), \text{Faux2}(\text{False},$   
 $y(11, 1), y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 279)\}) \wedge$   
 $\forall_{\{x(15, 1, 8), x(92, 1, 8), x(169, 1, 8), x(246, 1, 8), x(323, 1, 8), x(399, 1, 8), x(424, 1, 8)\}} (\{\text{Faux4}(\text{True},$   
 $x(424, 1, 8), y(11, 1), x(399, 1, 8), x(323, 1, 8), x(246, 1, 8),$   
 $x(169, 1, 8), x(92, 1, 8), x(15, 1, 8), 9), \text{Faux4}(\text{True}, y(11, 1),$   
 $y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 280)\}) \vee$   
 $\{\text{Faux5A2}(\text{False}, x(424, 1, 8), x(1, 1), x(399, 1, 8), x(323, 1, 8),$   
 $x(246, 1, 8), x(169, 1, 8), x(92, 1, 8), x(15, 1, 8), 10), \text{Faux5A2}(\text{False},$   
 $y(11, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 281)\}) \wedge$   
 $\forall_{\{x(26, 1, 5), x(103, 1, 5), x(180, 1, 5), x(257, 1, 5), x(334, 1, 5)\}} (\{\text{P4}(\text{True}, y(11, 1), x(334, 1, 5),$   
 $x(257, 1, 5), x(180, 1, 5), x(103, 1, 5), x(26, 1, 5), 31),$   
 $\text{P4}(\text{True}, y(11, 1), y(11, 2), y(8, 1), y(8, 1), y(9, 1), y(7), 284)\}) \vee$   
 $\{\text{P4}(\text{False}, y(8, 1), x(334, 1, 5), x(257, 1, 5), x(180, 1, 5), x(103, 1, 5), x(26,$   
 $1, 5), 32), \text{P4}(\text{False}, y(8, 1), y(11, 2), y(8, 1), y(8, 1), y(9, 1), y(7), 285)\}) \wedge$   
 $\forall_{\{x(42, 1, 6), x(119, 1, 6), x(196, 1, 6), x(273, 1, 6), x(350, 1, 6)\}} (\{\text{P4}(\text{True}, y(8, 1), x(350, 1, 6),$   
 $x(273, 1, 6), x(196, 1, 6), x(119, 1, 6), x(42, 1, 6), 63),$   
 $\text{P4}(\text{True}, y(8, 1), y(11, 2), y(8, 1), y(8, 1), y(9, 1), y(7), 285)\}) \vee$   
 $\{\text{FauxR}(\text{False}, y(8, 1), x(350, 1, 6), x(273, 1, 6), x(196, 1, 6),$   
 $x(119, 1, 6), x(42, 1, 6), y(2), 64),$   
 $\text{FauxR}(\text{False}, y(8, 1), y(11, 2), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 286)\}) \wedge$   
 $\forall_{\{x(12, 1, 11), x(89, 1, 11), x(166, 1, 11), x(243, 1, 11), x(320, 1, 11), x(396, 1, 11), x(421, 1, 11), x(442, 1, 11)\}} (\{\text{Faux1A2}($   
 $\text{True}, x(442, 1, 11), x(421, 1, 11), x(396, 1, 11), x(320, 1, 11), x(243, 1, 11),$   
 $x(166, 1, 11), x(89, 1, 11), x(1, 1), x(12, 1, 11), 3), \text{Faux1A2}(\text{True},$   
 $y(11, 2), y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 287)\}) \vee$   
 $\{\text{Faux2}(\text{False}, y(11, 1), x(421, 1, 11), x(396, 1, 11), x(320, 1, 11),$   
 $x(243, 1, 11), x(166, 1, 11), x(89, 1, 11), x(1, 1), x(12, 1, 11), 4), \text{Faux2}(\text{False},$   
 $y(11, 1), y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 288)\}) \wedge$   
 $\forall_{\{x(47, 1, 4), x(124, 1, 4), x(201, 1, 4), x(278, 1, 4), x(355, 1, 4), x(409, 1, 4), x(432, 1, 4), x(449, 1, 4)\}} (\{\text{Faux2}($   
 $\text{True}, x(449, 1, 4), y(10, 1), x(432, 1, 4), x(409, 1, 4), x(355, 1, 4),$   
 $x(278, 1, 4), x(201, 1, 4), x(124, 1, 4), x(47, 1, 4), 75), \text{Faux2}(\text{True},$   
 $y(11, 1), y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 288)\}) \vee$   
 $\{\text{Faux3A3}(\text{False}, x(449, 1, 4), x(1, 1), x(432, 1, 4), x(409, 1, 4), x(355, 1, 4),$   
 $x(278, 1, 4), x(201, 1, 4), x(124, 1, 4), x(47, 1, 4), 76), \text{Faux3A3}(\text{False},$   
 $y(11, 1), y(7), y(7), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 289)\}) \wedge$   
 $\forall_{\{x(48, 1, 4), x(125, 1, 4), x(202, 1, 4), x(279, 1, 4), x(356, 1, 4), x(410, 1, 4), x(433, 1, 4), x(450, 1, 4)\}} (\{\text{Faux3A3}($

```

True, x(450, 1, 4), x(433, 1, 4), x(1, 1), x(410, 1, 4), x(356, 1, 4),
x(279, 1, 4), x(202, 1, 4), x(125, 1, 4), x(48, 1, 4), 77), Faux3A3(True,
y(11, 1), y(7), y(7), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 289}) v
{Faux2(False, x(450, 1, 4), x(433, 1, 4), y(10, 1), x(410, 1, 4), x(356, 1, 4),
x(279, 1, 4), x(202, 1, 4), x(125, 1, 4), x(48, 1, 4), 78), Faux2(False,
y(11, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 290)}) w
V{x(49, 1, 4), x(126, 1, 4), x(203, 1, 4), x(280, 1, 4), x(357, 1, 4), x(411, 1, 4), x(434, 1, 4)} ({Faux4(True,
x(434, 1, 4), y(10, 1), x(411, 1, 4), x(357, 1, 4), x(280, 1, 4),
x(203, 1, 4), x(126, 1, 4), x(49, 1, 4), 79), Faux4(True, y(11, 1),
y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 291}) v
{Faux5A3(False, x(434, 1, 4), x(1, 1), x(411, 1, 4), x(357, 1, 4),
x(280, 1, 4), x(203, 1, 4), x(126, 1, 4), x(49, 1, 4), 80), Faux5A3(False,
y(11, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 292)}) w
V{x(26, 1, 6), x(103, 1, 6), x(180, 1, 6), x(257, 1, 6), x(334, 1, 6)} ({P4(True, y(11, 1), x(334, 1, 6),
x(257, 1, 6), x(180, 1, 6), x(103, 1, 6), x(26, 1, 6), 31),
P4(True, y(11, 1), y(10, 2), y(8, 1), y(9, 1), y(8, 1), y(7), 295}) v
{P4(False, y(8, 1), x(334, 1, 6), x(257, 1, 6), x(180, 1, 6), x(103, 1, 6), x(26,
1, 6), 32), P4(False, y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(8, 1), y(7), 296)}) w
V{x(42, 1, 7), x(119, 1, 7), x(196, 1, 7), x(273, 1, 7), x(350, 1, 7)} ({P4(True, y(8, 1), x(350, 1, 7),
x(273, 1, 7), x(196, 1, 7), x(119, 1, 7), x(42, 1, 7), 63),
P4(True, y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(8, 1), y(7), 296}) v
{FauxR(False, y(8, 1), x(350, 1, 7), x(273, 1, 7), x(196, 1, 7),
x(119, 1, 7), x(42, 1, 7), y(2), 64),
FauxR(False, y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 297)}) w
V{x(46, 1, 7), x(123, 1, 7), x(200, 1, 7), x(277, 1, 7), x(354, 1, 7), x(408, 1, 7), x(431, 1, 7), x(448, 1, 7)} ({Faux1A3(
True, x(448, 1, 7), x(431, 1, 7), x(408, 1, 7), x(354, 1, 7), x(277, 1, 7),
x(200, 1, 7), x(123, 1, 7), x(1, 1), x(46, 1, 7), 73), Faux1A3(True,
y(10, 2), y(8, 1), y(7), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 298}) v
{Faux2(False, y(10, 1), x(431, 1, 7), x(408, 1, 7), x(354, 1, 7), x(277, 1, 7),
x(200, 1, 7), x(123, 1, 7), x(1, 1), x(46, 1, 7), 74), Faux2(False, y(10, 1),
y(8, 1), y(7), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 299)}) w
V{x(31, 1, 5), x(108, 1, 5), x(185, 1, 5), x(262, 1, 5), x(339, 1, 5), x(403, 1, 5), x(427, 1, 5), x(446, 1, 5)} ({Faux2(
True, x(446, 1, 5), y(8, 1), x(427, 1, 5), x(403, 1, 5), x(339, 1, 5),
x(262, 1, 5), x(185, 1, 5), x(108, 1, 5), x(31, 1, 5), 41), Faux2(True,
y(10, 1), y(8, 1), y(7), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 299}) v
{Faux3A1(False, x(446, 1, 5), x(1, 1), x(427, 1, 5), x(403, 1, 5), x(339, 1, 5),
x(262, 1, 5), x(185, 1, 5), x(108, 1, 5), x(31, 1, 5), 42), Faux3A1(False,
y(10, 1), y(7), y(7), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 300)}) w
V{x(32, 1, 5), x(109, 1, 5), x(186, 1, 5), x(263, 1, 5), x(340, 1, 5), x(404, 1, 5), x(428, 1, 5), x(447, 1, 5)} ({Faux3A1(
True, x(447, 1, 5), x(428, 1, 5), x(1, 1), x(404, 1, 5), x(340, 1, 5),
x(263, 1, 5), x(186, 1, 5), x(109, 1, 5), x(32, 1, 5), 43), Faux3A1(True,
y(10, 1), y(7), y(7), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 300}) v

```

$\{Faux2(False, x(447, 1, 5), x(428, 1, 5), y(8, 1), x(404, 1, 5), x(340, 1, 5),$   
 $x(263, 1, 5), x(186, 1, 5), x(109, 1, 5), x(32, 1, 5), 44), Faux2(False,$   
 $y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(8, 1), y(7), y(2), 301)\} \wedge$   
 $\forall_{\{x(33, 1, 5), x(110, 1, 5), x(187, 1, 5), x(264, 1, 5), x(341, 1, 5), x(405, 1, 5), x(429, 1, 5)\}} \{Faux4(True,$   
 $x(429, 1, 5), y(8, 1), x(405, 1, 5), x(341, 1, 5),$   
 $x(264, 1, 5), x(187, 1, 5), x(110, 1, 5), x(33, 1, 5), 45),$   
 $Faux4(True, y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(8, 1), y(7), y(2), 302)\} \vee$   
 $\{Faux5A1(False, x(429, 1, 5), x(1, 1), x(405, 1, 5), x(341, 1, 5),$   
 $x(264, 1, 5), x(187, 1, 5), x(110, 1, 5), x(33, 1, 5), 46), Faux5A1(False,$   
 $y(10, 1), y(7), y(8, 1), y(9, 1), y(8, 1), y(8, 1), y(7), y(2), 303)\} \wedge$   
 $\forall_{\{x(59, 1, 2), x(136, 1, 2), x(213, 1, 2), x(290, 1, 2), x(367, 1, 2)\}} \{P4(True, y(10, 1), x(367, 1, 2),$   
 $x(290, 1, 2), x(213, 1, 2), x(136, 1, 2), x(59, 1, 2), 99),$   
 $P4(True, y(10, 1), y(8, 2), y(9, 1), y(8, 1), y(8, 1), y(7), 306)\} \vee$   
 $\{FauxR(False, y(10, 1), x(367, 1, 2), x(290, 1, 2),$   
 $x(213, 1, 2), x(136, 1, 2), x(59, 1, 2), y(4), 100),$   
 $FauxR(False, y(10, 1), y(8, 2), y(9, 1), y(8, 1), y(8, 1), y(7), y(4), 307)\} \wedge$   
 $\forall_{\{x(30, 1, 12), x(107, 1, 12), x(184, 1, 12), x(261, 1, 12), x(338, 1, 12), x(402, 1, 12), x(426, 1, 12), x(445, 1, 12)\}} \{Faux1A1($   
 $True, x(445, 1, 12), x(426, 1, 12), x(402, 1, 12), x(338, 1, 12), x(261, 1, 12),$   
 $x(184, 1, 12), x(107, 1, 12), x(1, 1), x(30, 1, 12), 39), Faux1A1(True,$   
 $y(8, 2), y(8, 1), y(7), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(4), 308)\} \vee$   
 $\{Faux2(False, y(8, 1), x(426, 1, 12), x(402, 1, 12), x(338, 1, 12), x(261, 1, 12),$   
 $x(184, 1, 12), x(107, 1, 12), x(1, 1), x(30, 1, 12), 40), Faux2(False,$   
 $y(8, 1), y(8, 1), y(7), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(4), 309)\} \wedge$   
 $\forall_{\{x(31, 1, 6), x(108, 1, 6), x(185, 1, 6), x(262, 1, 6), x(339, 1, 6), x(403, 1, 6), x(427, 1, 6), x(446, 1, 6)\}} \{Faux2($   
 $True, x(446, 1, 6), y(8, 1), x(427, 1, 6), x(403, 1, 6), x(339, 1, 6),$   
 $x(262, 1, 6), x(185, 1, 6), x(108, 1, 6), x(31, 1, 6), 41), Faux2(True,$   
 $y(8, 1), y(8, 1), y(7), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(4), 309)\} \vee$   
 $\{Faux3A1(False, x(446, 1, 6), x(1, 1), x(427, 1, 6), x(403, 1, 6), x(339, 1, 6),$   
 $x(262, 1, 6), x(185, 1, 6), x(108, 1, 6), x(31, 1, 6), 42), Faux3A1(False,$   
 $y(8, 1), y(7), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(4), 310)\} \wedge$   
 $\forall_{\{x(32, 1, 6), x(109, 1, 6), x(186, 1, 6), x(263, 1, 6), x(340, 1, 6), x(404, 1, 6), x(428, 1, 6), x(447, 1, 6)\}} \{Faux3A1($   
 $True, x(447, 1, 6), x(428, 1, 6), x(1, 1), x(404, 1, 6), x(340, 1, 6),$   
 $x(263, 1, 6), x(186, 1, 6), x(109, 1, 6), x(32, 1, 6), 43), Faux3A1(True,$   
 $y(8, 1), y(7), y(7), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(4), 310)\} \vee$   
 $\{Faux2(False, x(447, 1, 6), x(428, 1, 6), y(8, 1), x(404, 1, 6), x(340, 1, 6),$   
 $x(263, 1, 6), x(186, 1, 6), x(109, 1, 6), x(32, 1, 6), 44), Faux2(False,$   
 $y(8, 1), y(7), y(8, 1), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(4), 311)\} \wedge$   
 $\forall_{\{x(33, 1, 6), x(110, 1, 6), x(187, 1, 6), x(264, 1, 6), x(341, 1, 6), x(405, 1, 6), x(429, 1, 6)\}} \{Faux4(True,$   
 $x(429, 1, 6), y(8, 1), x(405, 1, 6), x(341, 1, 6),$   
 $x(264, 1, 6), x(187, 1, 6), x(110, 1, 6), x(33, 1, 6), 45),$   
 $Faux4(True, y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(4), 312)\} \vee$   
 $\{Faux5A1(False, x(429, 1, 6), x(1, 1), x(405, 1, 6), x(341, 1, 6),$

$$\begin{aligned}
& \times(264, 1, 6), \times(187, 1, 6), \times(110, 1, 6), \times(33, 1, 6), 46), \text{Faux5A1(False}, \\
& \text{y(8, 1), y(7), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(4), 313)}) \wedge \\
& \forall_{\{x(43, 1, 3), x(120, 1, 3), x(197, 1, 3), x(274, 1, 3), x(351, 1, 3)\}} (\{P2(True, y(8, 1), x(351, 1, 3), \\
& \times(274, 1, 3), x(197, 1, 3), x(120, 1, 3), x(43, 1, 3), 65), \\
& P2(True, y(8, 1), y(8, 2), y(8, 1), y(8, 1), y(10, 1), y(7), 316}\} \vee \\
& \{\text{FauxR(False, y(8, 1), x(351, 1, 3), x(274, 1, 3), x(197, 1, 3),} \\
& \times(120, 1, 3), x(43, 1, 3), y(4), 66), \\
& \text{FauxR(False, y(8, 1), y(8, 2), y(8, 1), y(8, 1), y(10, 1), y(7), y(4), 317)}) \wedge \\
& \forall_{\{x(30, 1, 13), x(107, 1, 13), x(184, 1, 13), x(261, 1, 13), x(338, 1, 13), x(402, 1, 13), x(426, 1, 13), x(445, 1, 13)\}} (\{\text{Faux1A1} \\
& \text{True, x(445, 1, 13), x(426, 1, 13), x(402, 1, 13), x(338, 1, 13), x(261, 1, 13),} \\
& \times(184, 1, 13), x(107, 1, 13), x(1, 1), x(30, 1, 13), 39), \text{Faux1A1(True,} \\
& \text{y(8, 2), y(9, 1), y(7), y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 318}) \vee \\
& \{\text{Faux2(False, y(8, 1), x(426, 1, 13), x(402, 1, 13), x(338, 1, 13), x(261, 1, 13),} \\
& \times(184, 1, 13), x(107, 1, 13), x(1, 1), x(30, 1, 13), 40), \text{Faux2(False,} \\
& \text{y(8, 1), y(9, 1), y(7), y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 319}) \wedge \\
& \forall_{\{x(64, 1, 4), x(141, 1, 4), x(218, 1, 4), x(295, 1, 4), x(372, 1, 4), x(415, 1, 4), x(437, 1, 4), x(452, 1, 4)\}} (\{\text{Faux2} \\
& \text{True, x(452, 1, 4), y(9, 1), x(437, 1, 4), x(415, 1, 4), x(372, 1, 4),} \\
& \times(295, 1, 4), x(218, 1, 4), x(141, 1, 4), x(64, 1, 4), 109), \text{Faux2(True,} \\
& \text{y(8, 1), y(9, 1), y(7), y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 319}) \vee \\
& \{\text{Faux3A4(False, x(452, 1, 4), x(1, 1), x(437, 1, 4), x(415, 1, 4), x(372, 1, 4),} \\
& \times(295, 1, 4), x(218, 1, 4), x(141, 1, 4), x(64, 1, 4), 110), \text{Faux3A4(False,} \\
& \text{y(8, 1), y(7), y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 320}) \wedge \\
& \forall_{\{x(65, 1, 4), x(142, 1, 4), x(219, 1, 4), x(296, 1, 4), x(373, 1, 4), x(416, 1, 4), x(438, 1, 4), x(453, 1, 4)\}} (\{\text{Faux3A4} \\
& \text{True, x(453, 1, 4), x(438, 1, 4), x(1, 1), x(416, 1, 4), x(373, 1, 4),} \\
& \times(296, 1, 4), x(219, 1, 4), x(142, 1, 4), x(65, 1, 4), 111), \text{Faux3A4(True,} \\
& \text{y(8, 1), y(7), y(7), y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 320}) \vee \\
& \{\text{Faux2(False, x(453, 1, 4), x(438, 1, 4), y(9, 1), x(416, 1, 4), x(373, 1, 4),} \\
& \times(296, 1, 4), x(219, 1, 4), x(142, 1, 4), x(65, 1, 4), 112), \text{Faux2(False,} \\
& \text{y(8, 1), y(7), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 321}) \wedge \\
& \forall_{\{x(66, 1, 4), x(143, 1, 4), x(220, 1, 4), x(297, 1, 4), x(374, 1, 4), x(417, 1, 4), x(439, 1, 4)\}} (\{\text{Faux4} \\
& \text{True, x(439, 1, 4), y(9, 1), x(417, 1, 4), x(374, 1, 4),} \\
& \times(297, 1, 4), x(220, 1, 4), x(143, 1, 4), x(66, 1, 4), 113), \\
& \text{Faux4(True, y(8, 1), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 322}) \vee \\
& \{\text{Faux5A4(False, x(439, 1, 4), x(1, 1), x(417, 1, 4), x(374, 1, 4),} \\
& \times(297, 1, 4), x(220, 1, 4), x(143, 1, 4), x(66, 1, 4), 114), \text{Faux5A4(False,} \\
& \text{y(8, 1), y(7), y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 323}) \wedge \\
& \forall_{\{x(43, 1, 4), x(120, 1, 4), x(197, 1, 4), x(274, 1, 4), x(351, 1, 4)\}} (\{\text{P2} \\
& \text{True, y(8, 1), x(351, 1, 4),} \\
& \times(274, 1, 4), x(197, 1, 4), x(120, 1, 4), x(43, 1, 4), 65), \\
& P2(True, y(8, 1), y(9, 2), y(8, 1), y(10, 1), y(8, 1), y(7), 326) \} \vee \\
& \{\text{FauxR(False, y(8, 1), x(351, 1, 4), x(274, 1, 4), x(197, 1, 4),} \\
& \times(120, 1, 4), x(43, 1, 4), y(4), 66), \\
& \text{FauxR(False, y(8, 1), y(9, 2), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 327}) \} \wedge
\end{aligned}$$

$$\begin{aligned}
& \forall_{\{x(63,1,7), x(140,1,7), x(217,1,7), x(294,1,7), x(371,1,7), x(414,1,7), x(436,1,7), x(451,1,7)\}} (\{\text{Faux1A4} \\
& \quad \text{True}, x(451, 1, 7), x(436, 1, 7), x(414, 1, 7), x(371, 1, 7), x(294, 1, 7), \\
& \quad x(217, 1, 7), x(140, 1, 7), x(1, 1), x(63, 1, 7), 107), \text{Faux1A4}(\text{True}, \\
& \quad y(9, 2), y(8, 1), y(7), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 328) \vee \\
& \quad \{\text{Faux2}(\text{False}, y(9, 1), x(436, 1, 7), x(414, 1, 7), x(371, 1, 7), x(294, 1, 7), \\
& \quad x(217, 1, 7), x(140, 1, 7), x(1, 1), x(63, 1, 7), 108), \text{Faux2}(\text{False}, y(9, 1), \\
& \quad y(8, 1), y(7), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 329)\}) \wedge \\
& \forall_{\{x(31,1,7), x(108,1,7), x(185,1,7), x(262,1,7), x(339,1,7), x(403,1,7), x(427,1,7), x(446,1,7)\}} (\{\text{Faux2} \\
& \quad \text{True}, x(446, 1, 7), y(8, 1), x(427, 1, 7), x(403, 1, 7), x(339, 1, 7), \\
& \quad x(262, 1, 7), x(185, 1, 7), x(108, 1, 7), x(31, 1, 7), 41), \text{Faux2}(\text{True}, \\
& \quad y(9, 1), y(8, 1), y(7), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 329) \vee \\
& \quad \{\text{Faux3A1}(\text{False}, x(446, 1, 7), x(1, 1), x(427, 1, 7), x(403, 1, 7), x(339, 1, 7), \\
& \quad x(262, 1, 7), x(185, 1, 7), x(108, 1, 7), x(31, 1, 7), 42), \text{Faux3A1}(\text{False}, \\
& \quad y(9, 1), y(7), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 330)\}) \wedge \\
& \forall_{\{x(32,1,7), x(109,1,7), x(186,1,7), x(263,1,7), x(340,1,7), x(404,1,7), x(428,1,7), x(447,1,7)\}} (\{\text{Faux3A1} \\
& \quad \text{True}, x(447, 1, 7), x(428, 1, 7), x(1, 1), x(404, 1, 7), x(340, 1, 7), \\
& \quad x(263, 1, 7), x(186, 1, 7), x(109, 1, 7), x(32, 1, 7), 43), \text{Faux3A1}(\text{True}, \\
& \quad y(9, 1), y(7), y(7), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 330) \vee \\
& \quad \{\text{Faux2}(\text{False}, x(447, 1, 7), x(428, 1, 7), y(8, 1), x(404, 1, 7), x(340, 1, 7), \\
& \quad x(263, 1, 7), x(186, 1, 7), x(109, 1, 7), x(32, 1, 7), 44), \text{Faux2}(\text{False}, \\
& \quad y(9, 1), y(7), y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 331)\}) \wedge \\
& \forall_{\{x(33,1,7), x(110,1,7), x(187,1,7), x(264,1,7), x(341,1,7), x(405,1,7), x(429,1,7)\}} (\{\text{Faux4}(\text{True}, \\
& \quad x(429, 1, 7), y(8, 1), x(405, 1, 7), x(341, 1, 7), \\
& \quad x(264, 1, 7), x(187, 1, 7), x(110, 1, 7), x(33, 1, 7), 45), \\
& \quad \text{Faux4}(\text{True}, y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 332) \vee \\
& \quad \{\text{Faux5A1}(\text{False}, x(429, 1, 7), x(1, 1), x(405, 1, 7), x(341, 1, 7), \\
& \quad x(264, 1, 7), x(187, 1, 7), x(110, 1, 7), x(33, 1, 7), 46), \text{Faux5A1}(\text{False}, \\
& \quad y(9, 1), y(7), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 333)\}) \wedge \\
& \forall_{\{x(77,1,2), x(154,1,2), x(231,1,2), x(308,1,2), x(385,1,2)\}} (\{\text{P2}(\text{True}, y(9, 1), x(385, 1, 2), \\
& \quad x(308, 1, 2), x(231, 1, 2), x(154, 1, 2), x(77, 1, 2), 135), \\
& \quad \text{P2}(\text{True}, y(9, 1), y(8, 2), y(10, 1), y(8, 1), y(8, 1), y(7), 336) \vee \\
& \quad \{\text{FauxR}(\text{False}, y(9, 1), x(385, 1, 2), x(308, 1, 2), x(231, 1, 2), \\
& \quad x(154, 1, 2), x(77, 1, 2), y(3), 136), \\
& \quad \text{FauxR}(\text{False}, y(9, 1), y(8, 2), y(10, 1), y(8, 1), y(8, 1), y(7), y(3), 337)\}) \wedge \\
& \forall_{\{x(30,1,14), x(107,1,14), x(184,1,14), x(261,1,14), x(338,1,14), x(402,1,14), x(426,1,14), x(445,1,14)\}} (\{\text{Faux1A1} \\
& \quad \text{True}, x(445, 1, 14), x(426, 1, 14), x(402, 1, 14), x(338, 1, 14), x(261, 1, 14), \\
& \quad x(184, 1, 14), x(107, 1, 14), x(1, 1), x(30, 1, 14), 39), \text{Faux1A1}(\text{True}, \\
& \quad y(8, 2), y(8, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 338) \vee \\
& \quad \{\text{Faux2}(\text{False}, y(8, 1), x(426, 1, 14), x(402, 1, 14), x(338, 1, 14), x(261, 1, 14), \\
& \quad x(184, 1, 14), x(107, 1, 14), x(1, 1), x(30, 1, 14), 40), \text{Faux2}(\text{False}, \\
& \quad y(8, 1), y(8, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 339)\}) \wedge \\
& \forall_{\{x(31,1,8), x(108,1,8), x(185,1,8), x(262,1,8), x(339,1,8), x(403,1,8), x(427,1,8), x(446,1,8)\}} (\{\text{Faux2}(
\end{aligned}$$

```

True, x(446, 1, 8), y(8, 1), x(427, 1, 8), x(403, 1, 8), x(339, 1, 8),
x(262, 1, 8), x(185, 1, 8), x(108, 1, 8), x(31, 1, 8), 41), Faux2(True,
y(8, 1), y(8, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 339}) v
{Faux3A1(False, x(446, 1, 8), x(1, 1), x(427, 1, 8), x(403, 1, 8), x(339, 1, 8),
x(262, 1, 8), x(185, 1, 8), x(108, 1, 8), x(31, 1, 8), 42), Faux3A1(False,
y(8, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 340)})} v
V_{x(32,1,8),x(109,1,8),x(186,1,8),x(263,1,8),x(340,1,8),x(404,1,8),x(428,1,8),x(447,1,8)} ({Faux3A1(
True, x(447, 1, 8), x(428, 1, 8), x(1, 1), x(404, 1, 8), x(340, 1, 8),
x(263, 1, 8), x(186, 1, 8), x(109, 1, 8), x(32, 1, 8), 43), Faux3A1(True,
y(8, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 340)})} v
{Faux2(False, x(447, 1, 8), x(428, 1, 8), y(8, 1), x(404, 1, 8), x(340, 1, 8),
x(263, 1, 8), x(186, 1, 8), x(109, 1, 8), x(32, 1, 8), 44), Faux2(False,
y(8, 1), y(7), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 341)})} v
V_{x(33,1,8),x(110,1,8),x(187,1,8),x(264,1,8),x(341,1,8),x(405,1,8),x(429,1,8)} ({Faux4(True,
x(429, 1, 8), y(8, 1), x(405, 1, 8), x(341, 1, 8),
x(264, 1, 8), x(187, 1, 8), x(110, 1, 8), x(33, 1, 8), 45),
Faux4(True, y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 342)})} v
{Faux5A1(False, x(429, 1, 8), x(1, 1), x(405, 1, 8), x(341, 1, 8),
x(264, 1, 8), x(187, 1, 8), x(110, 1, 8), x(33, 1, 8), 46), Faux5A1(False,
y(8, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 343)})} v
V_{x(44,1,2),x(121,1,2),x(198,1,2),x(275,1,2),x(352,1,2)} ({P3(True, y(8, 1), x(352, 1, 2),
x(275, 1, 2), x(198, 1, 2), x(121, 1, 2), x(44, 1, 2), 67),
P3(True, y(8, 1), y(8, 2), y(8, 1), y(8, 1), y(9, 1), y(7), 346)})} v
{FauxS1(False, y(8, 1), x(352, 1, 2), x(275, 1, 2),
x(198, 1, 2), x(121, 1, 2), x(44, 1, 2), y(6), 68),
FauxS1(False, y(8, 1), y(8, 2), y(8, 1), y(8, 1), y(9, 1), y(7), y(6), 347)})} v
V_{x(23,1,7),x(100,1,7),x(177,1,7),x(254,1,7),x(331,1,7)} ({P(True, y(8, 1), x(331, 1, 7),
x(254, 1, 7), x(177, 1, 7), x(100, 1, 7), x(23, 1, 7), 25),
P(True, y(8, 1), y(8, 3), y(8, 1), y(8, 1), y(9, 1), y(7), 348)}) v {P1(False,
y(11, 1), x(331, 1, 7), x(254, 1, 7), x(177, 1, 7), x(100, 1, 7), x(23, 1, 7), 26),
P1(False, y(11, 1), y(8, 3), y(8, 1), y(8, 1), y(9, 1), y(7), 349)})} v
V_{x(25,1,7),x(102,1,7),x(179,1,7),x(256,1,7),x(333,1,7)} ({P1(True, y(11, 1), x(333, 1, 7),
x(256, 1, 7), x(179, 1, 7), x(102, 1, 7), x(25, 1, 7), 29),
P1(True, y(11, 1), y(8, 3), y(8, 1), y(8, 1), y(9, 1), y(7), 349)})} v
{FauxR(False, y(11, 1), x(333, 1, 7), x(256, 1, 7),
x(179, 1, 7), x(102, 1, 7), x(25, 1, 7), y(5), 30),
FauxR(False, y(11, 1), y(8, 3), y(8, 1), y(8, 1), y(9, 1), y(7), y(5), 350)})} v
V_{x(30,1,15),x(107,1,15),x(184,1,15),x(261,1,15),x(338,1,15),x(402,1,15),x(426,1,15),x(445,1,15)} ({Faux1A1(
True, x(445, 1, 15), x(426, 1, 15), x(402, 1, 15), x(338, 1, 15), x(261, 1, 15),
x(184, 1, 15), x(107, 1, 15), x(1, 1), x(30, 1, 15), 39), Faux1A1(True,
y(8, 3), y(8, 2), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 351)}) v
{Faux2(False, y(8, 1), x(426, 1, 15), x(402, 1, 15), x(338, 1, 15), x(261, 1, 15),

```

$x(184, 1, 15), x(107, 1, 15), x(1, 1), x(30, 1, 15), 40), \text{Faux2}(\text{False},$   
 $y(8, 1), y(8, 2), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 352)\}) \wedge$   
 $\forall_{\{x(32, 1, 9), x(109, 1, 9), x(186, 1, 9), x(263, 1, 9), x(340, 1, 9), x(404, 1, 9), x(428, 1, 9), x(447, 1, 9)\}} (\{\text{Faux3A1}($   
 $\text{True}, x(447, 1, 9), x(428, 1, 9), x(1, 1), x(404, 1, 9), x(340, 1, 9),$   
 $x(263, 1, 9), x(186, 1, 9), x(109, 1, 9), x(32, 1, 9), 43), \text{Faux3A1}(\text{True},$   
 $y(8, 1), y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 353)\}) \vee$   
 $\{\text{Faux2}(\text{False}, x(447, 1, 9), x(428, 1, 9), y(8, 1), x(404, 1, 9), x(340, 1, 9),$   
 $x(263, 1, 9), x(186, 1, 9), x(109, 1, 9), x(32, 1, 9), 44), \text{Faux2}(\text{False}, y(8, 1),$   
 $y(10, 1), y(8, 1), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 354)\}) \wedge$   
 $\forall_{\{x(47, 1, 5), x(124, 1, 5), x(201, 1, 5), x(278, 1, 5), x(355, 1, 5), x(409, 1, 5), x(432, 1, 5), x(449, 1, 5)\}} (\{\text{Faux2}($   
 $\text{True}, x(449, 1, 5), y(10, 1), x(432, 1, 5), x(409, 1, 5), x(355, 1, 5),$   
 $x(278, 1, 5), x(201, 1, 5), x(124, 1, 5), x(47, 1, 5), 75), \text{Faux2}(\text{True}, y(8, 1),$   
 $y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 354)\}) \vee$   
 $\{\text{Faux3A3}(\text{False}, x(449, 1, 5), x(1, 1), x(432, 1, 5), x(409, 1, 5), x(355, 1, 5),$   
 $x(278, 1, 5), x(201, 1, 5), x(124, 1, 5), x(47, 1, 5), 76), \text{Faux3A3}(\text{False},$   
 $y(8, 1), y(7), y(8, 1), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 355)\}) \wedge$   
 $\forall_{\{x(33, 1, 9), x(110, 1, 9), x(187, 1, 9), x(264, 1, 9), x(341, 1, 9), x(405, 1, 9), x(429, 1, 9)\}} (\{\text{Faux4}(\text{True},$   
 $x(429, 1, 9), y(8, 1), x(405, 1, 9), x(341, 1, 9), x(264, 1, 9),$   
 $x(187, 1, 9), x(110, 1, 9), x(33, 1, 9), 45), \text{Faux4}(\text{True}, y(8, 1),$   
 $y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 359)\}) \vee$   
 $\{\text{Faux5A1}(\text{False}, x(429, 1, 9), x(1, 1), x(405, 1, 9), x(341, 1, 9),$   
 $x(264, 1, 9), x(187, 1, 9), x(110, 1, 9), x(33, 1, 9), 46), \text{Faux5A1}(\text{False},$   
 $y(8, 1), y(7), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 360)\}) \wedge$   
 $\forall_{\{x(41, 1, 4), x(118, 1, 4), x(195, 1, 4), x(272, 1, 4), x(349, 1, 4)\}} (\{\text{P1}(\text{True}, y(8, 1), x(349, 1, 4),$   
 $x(272, 1, 4), x(195, 1, 4), x(118, 1, 4), x(41, 1, 4), 61),$   
 $\text{P1}(\text{True}, y(8, 1), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), 363)\}) \vee$   
 $\{\text{FauxR}(\text{False}, y(8, 1), x(349, 1, 4), x(272, 1, 4), x(195, 1, 4),$   
 $x(118, 1, 4), x(41, 1, 4), y(5), 62),$   
 $\text{FauxR}(\text{False}, y(8, 1), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 364)\}) \wedge$   
 $\forall_{\{x(30, 1, 16), x(107, 1, 16), x(184, 1, 16), x(261, 1, 16), x(338, 1, 16), x(402, 1, 16), x(426, 1, 16), x(445, 1, 16)\}} (\{\text{Faux1A1}($   
 $\text{True}, x(445, 1, 16), x(426, 1, 16), x(402, 1, 16), x(338, 1, 16), x(261, 1, 16),$   
 $x(184, 1, 16), x(107, 1, 16), x(1, 1), x(30, 1, 16), 39), \text{Faux1A1}(\text{True},$   
 $y(8, 3), y(10, 2), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 365)\}) \vee$   
 $\{\text{Faux2}(\text{False}, y(8, 1), x(426, 1, 16), x(402, 1, 16), x(338, 1, 16), x(261, 1, 16),$   
 $x(184, 1, 16), x(107, 1, 16), x(1, 1), x(30, 1, 16), 40), \text{Faux2}(\text{False},$   
 $y(8, 1), y(10, 2), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 366)\}) \wedge$   
 $\forall_{\{x(48, 1, 5), x(125, 1, 5), x(202, 1, 5), x(279, 1, 5), x(356, 1, 5), x(410, 1, 5), x(433, 1, 5), x(450, 1, 5)\}} (\{\text{Faux3A3}($   
 $\text{True}, x(450, 1, 5), x(433, 1, 5), x(1, 1), x(410, 1, 5), x(356, 1, 5),$   
 $x(279, 1, 5), x(202, 1, 5), x(125, 1, 5), x(48, 1, 5), 77), \text{Faux3A3}(\text{True},$   
 $y(8, 1), y(8, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 367)\}) \vee$   
 $\{\text{Faux2}(\text{False}, x(450, 1, 5), x(433, 1, 5), y(10, 1), x(410, 1, 5), x(356, 1, 5),$   
 $x(279, 1, 5), x(202, 1, 5), x(125, 1, 5), x(48, 1, 5), 78), \text{Faux2}(\text{False}, y(8, 1),$

$$\begin{aligned}
& y(8, 1), y(10, 1), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 368) \} \wedge \\
& \forall_{\{x(31, 1, 9), x(108, 1, 9), x(185, 1, 9), x(262, 1, 9), x(339, 1, 9), x(403, 1, 9), x(427, 1, 9), x(446, 1, 9)\}} \{ \{ \text{Faux2}( \\
& \text{True}, x(446, 1, 9), y(8, 1), x(427, 1, 9), x(403, 1, 9), x(339, 1, 9), \\
& x(262, 1, 9), x(185, 1, 9), x(108, 1, 9), x(31, 1, 9), 41), \text{Faux2}(\text{True}, y(8, 1), \\
& y(8, 1), y(10, 1), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 368) \} \vee \\
& \{ \text{Faux3A1}(\text{False}, x(446, 1, 9), x(1, 1), x(427, 1, 9), x(403, 1, 9), x(339, 1, 9), \\
& x(262, 1, 9), x(185, 1, 9), x(108, 1, 9), x(31, 1, 9), 42), \text{Faux3A1}(\text{False}, \\
& y(8, 1), y(7), y(10, 1), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 369) \} \} \wedge \\
& \forall_{\{x(49, 1, 5), x(126, 1, 5), x(203, 1, 5), x(280, 1, 5), x(357, 1, 5), x(411, 1, 5), x(434, 1, 5)\}} \{ \{ \text{Faux4}(\text{True}, \\
& x(434, 1, 5), y(10, 1), x(411, 1, 5), x(357, 1, 5), x(280, 1, 5), \\
& x(203, 1, 5), x(126, 1, 5), x(49, 1, 5), 79), \text{Faux4}(\text{True}, y(8, 1), \\
& y(10, 1), y(8, 2), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 373) \} \vee \\
& \{ \text{Faux5A3}(\text{False}, x(434, 1, 5), x(1, 1), x(411, 1, 5), x(357, 1, 5), \\
& x(280, 1, 5), x(203, 1, 5), x(126, 1, 5), x(49, 1, 5), 80), \text{Faux5A3}(\text{False}, \\
& y(8, 1), y(7), y(8, 2), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 374) \} \} \wedge \\
& \forall_{\{x(41, 1, 5), x(118, 1, 5), x(195, 1, 5), x(272, 1, 5), x(349, 1, 5)\}} \{ \{ \text{P1}(\text{True}, y(8, 1), x(349, 1, 5), \\
& x(272, 1, 5), x(195, 1, 5), x(118, 1, 5), x(41, 1, 5), 61), \\
& \text{P1}(\text{True}, y(8, 1), y(10, 3), y(9, 1), y(11, 1), y(8, 1), y(7), 377) \} \vee \\
& \{ \text{FauxR}(\text{False}, y(8, 1), x(349, 1, 5), x(272, 1, 5), x(195, 1, 5), \\
& x(118, 1, 5), x(41, 1, 5), y(5), 62), \\
& \text{FauxR}(\text{False}, y(8, 1), y(10, 3), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 378) \} \} \wedge \\
& \forall_{\{x(46, 1, 8), x(123, 1, 8), x(200, 1, 8), x(277, 1, 8), x(354, 1, 8), x(408, 1, 8), x(431, 1, 8), x(448, 1, 8)\}} \{ \{ \text{Faux1A3}( \\
& \text{True}, x(448, 1, 8), x(431, 1, 8), x(408, 1, 8), x(354, 1, 8), x(277, 1, 8), \\
& x(200, 1, 8), x(123, 1, 8), x(1, 1), x(46, 1, 8), 73), \text{Faux1A3}(\text{True}, \\
& y(10, 3), y(8, 2), y(7), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 379) \} \vee \\
& \{ \text{Faux2}(\text{False}, y(10, 1), x(431, 1, 8), x(408, 1, 8), x(354, 1, 8), x(277, 1, 8), \\
& x(200, 1, 8), x(123, 1, 8), x(1, 1), x(46, 1, 8), 74), \text{Faux2}(\text{False}, y(10, 1), \\
& y(8, 2), y(7), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 380) \} \} \wedge \\
& \forall_{\{x(32, 1, 10), x(109, 1, 10), x(186, 1, 10), x(263, 1, 10), x(340, 1, 10), x(404, 1, 10), x(428, 1, 10), x(447, 1, 10)\}} \{ \{ \text{Faux3A1}( \\
& \text{True}, x(447, 1, 10), x(428, 1, 10), x(1, 1), x(404, 1, 10), x(340, 1, 10), \\
& x(263, 1, 10), x(186, 1, 10), x(109, 1, 10), x(32, 1, 10), 43), \text{Faux3A1}(\text{True}, \\
& y(10, 1), y(8, 1), y(7), y(9, 1), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 381) \} \vee \\
& \{ \text{Faux2}(\text{False}, x(447, 1, 10), x(428, 1, 10), y(8, 1), x(404, 1, 10), x(340, 1, 10), \\
& x(263, 1, 10), x(186, 1, 10), x(109, 1, 10), x(32, 1, 10), 44), \text{Faux2}(\text{False}, \\
& y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 382) \} \} \wedge \\
& \forall_{\{x(31, 1, 10), x(108, 1, 10), x(185, 1, 10), x(262, 1, 10), x(339, 1, 10), x(403, 1, 10), x(427, 1, 10), x(446, 1, 10)\}} \{ \{ \text{Faux2}( \\
& \text{True}, x(446, 1, 10), y(8, 1), x(427, 1, 10), x(403, 1, 10), x(339, 1, 10), \\
& x(262, 1, 10), x(185, 1, 10), x(108, 1, 10), x(31, 1, 10), 41), \text{Faux2}(\text{True}, \\
& y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 382) \} \vee \\
& \{ \text{Faux3A1}(\text{False}, x(446, 1, 10), x(1, 1), x(427, 1, 10), x(403, 1, 10), x(339, 1, 10), \\
& x(262, 1, 10), x(185, 1, 10), x(108, 1, 10), x(31, 1, 10), 42), \text{Faux3A1}(\text{False}, \\
& y(10, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 383) \} \} \wedge
\end{aligned}$$

$\forall_{\{x(33,1,10), x(110,1,10), x(187,1,10), x(264,1,10), x(341,1,10), x(405,1,10), x(429,1,10)\}} \{\{Faux4(True,$   
 $x(429, 1, 10), y(8, 1), x(405, 1, 10), x(341, 1, 10), x(264, 1, 10),$   
 $x(187, 1, 10), x(110, 1, 10), x(33, 1, 10), 45\}, Faux4(True, y(10, 1),$   
 $y(8, 1), y(8, 2), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 387\}\} \vee$   
 $\{Faux5A1(False, x(429, 1, 10), x(1, 1), x(405, 1, 10), x(341, 1, 10),$   
 $x(264, 1, 10), x(187, 1, 10), x(110, 1, 10), x(33, 1, 10), 46\}, Faux5A1($   
 $False, y(10, 1), y(7), y(8, 2), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 388\}\} \wedge$   
 $\forall_{\{x(58,1,4), x(135,1,4), x(212,1,4), x(289,1,4), x(366,1,4)\}} \{\{P1(True, y(10, 1), x(366, 1, 4),$   
 $x(289, 1, 4), x(212, 1, 4), x(135, 1, 4), x(58, 1, 4), 97\},$   
 $P1(True, y(10, 1), y(8, 3), y(11, 1), y(8, 1), y(8, 1), y(7), 391\}\} \vee$   
 $\{FauxR(False, y(10, 1), x(366, 1, 4), x(289, 1, 4),$   
 $x(212, 1, 4), x(135, 1, 4), x(58, 1, 4), y(6), 98\},$   
 $FauxR(False, y(10, 1), y(8, 3), y(11, 1), y(8, 1), y(8, 1), y(7), y(6), 392\}\} \wedge$   
 $\forall_{\{x(30,1,17), x(107,1,17), x(184,1,17), x(261,1,17), x(338,1,17), x(402,1,17), x(426,1,17), x(445,1,17)\}} \{\{Faux1A1($   
 $True, x(445, 1, 17), x(426, 1, 17), x(402, 1, 17), x(338, 1, 17), x(261, 1, 17),$   
 $x(184, 1, 17), x(107, 1, 17), x(1, 1), x(30, 1, 17), 39\}, Faux1A1(True,$   
 $y(8, 3), y(8, 2), y(7), y(11, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 393\}\} \vee$   
 $\{Faux2(False, y(8, 1), x(426, 1, 17), x(402, 1, 17), x(338, 1, 17), x(261, 1, 17),$   
 $x(184, 1, 17), x(107, 1, 17), x(1, 1), x(30, 1, 17), 40\}, Faux2(False,$   
 $y(8, 1), y(8, 2), y(7), y(11, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 394\}\} \wedge$   
 $\forall_{\{x(32,1,11), x(109,1,11), x(186,1,11), x(263,1,11), x(340,1,11), x(404,1,11), x(428,1,11), x(447,1,11)\}} \{\{Faux3A1($   
 $True, x(447, 1, 11), x(428, 1, 11), x(1, 1), x(404, 1, 11), x(340, 1, 11),$   
 $x(263, 1, 11), x(186, 1, 11), x(109, 1, 11), x(32, 1, 11), 43\}, Faux3A1(True,$   
 $y(8, 1), y(9, 1), y(7), y(11, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 395\}\} \vee$   
 $\{Faux2(False, x(447, 1, 11), x(428, 1, 11), y(8, 1), x(404, 1, 11), x(340, 1, 11),$   
 $x(263, 1, 11), x(186, 1, 11), x(109, 1, 11), x(32, 1, 11), 44\}, Faux2(False,$   
 $y(8, 1), y(9, 1), y(8, 1), y(11, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 396\}\} \wedge$   
 $\forall_{\{x(64,1,5), x(141,1,5), x(218,1,5), x(295,1,5), x(372,1,5), x(415,1,5), x(437,1,5), x(452,1,5)\}} \{\{Faux2($   
 $True, x(452, 1, 5), y(9, 1), x(437, 1, 5), x(415, 1, 5), x(372, 1, 5),$   
 $x(295, 1, 5), x(218, 1, 5), x(141, 1, 5), x(64, 1, 5), 109\}, Faux2(True,$   
 $y(8, 1), y(9, 1), y(8, 1), y(11, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 396\}\} \vee$   
 $\{Faux3A4(False, x(452, 1, 5), x(1, 1), x(437, 1, 5), x(415, 1, 5), x(372, 1, 5),$   
 $x(295, 1, 5), x(218, 1, 5), x(141, 1, 5), x(64, 1, 5), 110\}, Faux3A4(False,$   
 $y(8, 1), y(7), y(8, 1), y(11, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 397\}\} \wedge$   
 $\forall_{\{x(33,1,11), x(110,1,11), x(187,1,11), x(264,1,11), x(341,1,11), x(405,1,11), x(429,1,11)\}} \{\{Faux4($   
 $True, x(429, 1, 11), y(8, 1), x(405, 1, 11), x(341, 1, 11),$   
 $x(264, 1, 11), x(187, 1, 11), x(110, 1, 11), x(33, 1, 11), 45\},$   
 $Faux4(True, y(8, 1), y(8, 1), y(9, 2), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 401\}\} \vee$   
 $\{Faux5A1(False, x(429, 1, 11), x(1, 1), x(405, 1, 11), x(341, 1, 11),$   
 $x(264, 1, 11), x(187, 1, 11), x(110, 1, 11), x(33, 1, 11), 46\}, Faux5A1($   
 $False, y(8, 1), y(7), y(9, 2), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 402\}\} \wedge$   
 $\forall_{\{x(23,1,8), x(100,1,8), x(177,1,8), x(254,1,8), x(331,1,8)\}} \{\{P(True, y(8, 1), x(331, 1, 8),$

```

x(254, 1, 8), x(177, 1, 8), x(100, 1, 8), x(23, 1, 8), 25),
P(True, y(8, 1), y(8, 3), y(8, 1), y(8, 1), y(10, 1), y(7), 405} v {P1(False,
y(11, 1), x(331, 1, 8), x(254, 1, 8), x(177, 1, 8), x(100, 1, 8), x(23, 1, 8), 26),
P1(False, y(11, 1), y(8, 3), y(8, 1), y(8, 1), y(10, 1), y(7), 406})} v
 $\forall_{\{x(25, 1, 8), x(102, 1, 8), x(179, 1, 8), x(256, 1, 8), x(333, 1, 8)\}} \{ \{ P1(True, y(11, 1), x(333, 1, 8),
x(256, 1, 8), x(179, 1, 8), x(102, 1, 8), x(25, 1, 8), 29),
P1(True, y(11, 1), y(8, 3), y(8, 1), y(8, 1), y(10, 1), y(7), 406) \} v
\{ FauxR(False, y(11, 1), x(333, 1, 8), x(256, 1, 8),
x(179, 1, 8), x(102, 1, 8), x(25, 1, 8), y(5), 30),
FauxR(False, y(11, 1), y(8, 3), y(8, 1), y(8, 1), y(10, 1), y(7), y(5), 407) \} \} v$ 
 $\forall_{\{x(30, 1, 18), x(107, 1, 18), x(184, 1, 18), x(261, 1, 18), x(338, 1, 18), x(402, 1, 18), x(426, 1, 18), x(445, 1, 18)\}} \{ \{ Faux1A1(
True, x(445, 1, 18), x(426, 1, 18), x(402, 1, 18), x(338, 1, 18), x(261, 1, 18),
x(184, 1, 18), x(107, 1, 18), x(1, 1), x(30, 1, 18), 39),
Faux1A1(True, y(8, 3), y(9, 2), y(7), y(8, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 408) \} v
\{ Faux2(False, y(8, 1), x(426, 1, 18), x(402, 1, 18), x(338, 1, 18), x(261, 1, 18),
x(184, 1, 18), x(107, 1, 18), x(1, 1), x(30, 1, 18), 40),
Faux2(False, y(8, 1), y(9, 2), y(7), y(8, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 409) \} \} v$ 
 $\forall_{\{x(65, 1, 5), x(142, 1, 5), x(219, 1, 5), x(296, 1, 5), x(373, 1, 5), x(416, 1, 5), x(438, 1, 5), x(453, 1, 5)\}} \{ \{ Faux3A4(
True, x(453, 1, 5), x(438, 1, 5), x(1, 1), x(416, 1, 5), x(373, 1, 5),
x(296, 1, 5), x(219, 1, 5), x(142, 1, 5), x(65, 1, 5), 111),
Faux3A4(True, y(8, 1), y(11, 1), y(7), y(8, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 410) \} v
\{ Faux2(False, x(453, 1, 5), x(438, 1, 5), y(9, 1), x(416, 1, 5), x(373, 1, 5),
x(296, 1, 5), x(219, 1, 5), x(142, 1, 5), x(65, 1, 5), 112),
Faux2(False, y(8, 1), y(11, 1), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 411) \} \} v$ 
 $\forall_{\{x(13, 1, 9), x(90, 1, 9), x(167, 1, 9), x(244, 1, 9), x(321, 1, 9), x(397, 1, 9), x(422, 1, 9), x(443, 1, 9)\}} \{ \{ Faux2(
True, x(443, 1, 9), y(11, 1), x(422, 1, 9), x(397, 1, 9), x(321, 1, 9),
x(244, 1, 9), x(167, 1, 9), x(90, 1, 9), x(13, 1, 9), 5),
Faux2(True, y(8, 1), y(11, 1), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 411) \} v
\{ Faux3A2(False, x(443, 1, 9), x(1, 1), x(422, 1, 9), x(397, 1, 9), x(321, 1, 9),
x(244, 1, 9), x(167, 1, 9), x(90, 1, 9), x(13, 1, 9), 6),
Faux3A2(False, y(8, 1), y(7), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 412) \} \} v$ 
 $\forall_{\{x(66, 1, 5), x(143, 1, 5), x(220, 1, 5), x(297, 1, 5), x(374, 1, 5), x(417, 1, 5), x(439, 1, 5)\}} \{ \{ Faux4(True,
x(439, 1, 5), y(9, 1), x(417, 1, 5), x(374, 1, 5), x(297, 1, 5),
x(220, 1, 5), x(143, 1, 5), x(66, 1, 5), 113),
Faux4(True, y(8, 1), y(9, 1), y(11, 2), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 416) \} v
\{ Faux5A4(False, x(439, 1, 5), x(1, 1), x(417, 1, 5), x(374, 1, 5),
x(297, 1, 5), x(220, 1, 5), x(143, 1, 5), x(66, 1, 5), 114),
Faux5A4(False, y(8, 1), y(7), y(11, 2), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 417) \} \} v$ 
 $\forall_{\{x(41, 1, 6), x(118, 1, 6), x(195, 1, 6), x(272, 1, 6), x(349, 1, 6)\}} \{ \{ P1(True, y(8, 1), x(349, 1, 6),
x(272, 1, 6), x(195, 1, 6), x(118, 1, 6), x(41, 1, 6), 61),
P1(True, y(8, 1), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), 420) \} v
\{ FauxR(False, y(8, 1), x(349, 1, 6), x(272, 1, 6), x(195, 1, 6),$ 

```

```

    x(118, 1, 6), x(41, 1, 6), y(5), 62),
    FauxR(False, y(8, 1), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 421)}) \wedge
    \forall_{\{x(63, 1, 8), x(140, 1, 8), x(217, 1, 8), x(294, 1, 8), x(371, 1, 8), x(414, 1, 8), x(436, 1, 8), x(451, 1, 8)\}} (\{Faux1A4(
        True, x(451, 1, 8), x(436, 1, 8), x(414, 1, 8), x(371, 1, 8), x(294, 1, 8),
        x(217, 1, 8), x(140, 1, 8), x(1, 1), x(63, 1, 8), 107), Faux1A4(True, y(9, 3),
        y(11, 2), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 422)\} \vee
        \{Faux2(False, y(9, 1), x(436, 1, 8), x(414, 1, 8), x(371, 1, 8), x(294, 1, 8),
        x(217, 1, 8), x(140, 1, 8), x(1, 1), x(63, 1, 8), 108), Faux2(False, y(9, 1),
        y(11, 2), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 423)\}) \wedge
    \forall_{\{x(14, 1, 9), x(91, 1, 9), x(168, 1, 9), x(245, 1, 9), x(322, 1, 9), x(398, 1, 9), x(423, 1, 9), x(444, 1, 9)\}} (\{Faux3A2(
        True, x(444, 1, 9), x(423, 1, 9), x(1, 1), x(398, 1, 9), x(322, 1, 9),
        x(245, 1, 9), x(168, 1, 9), x(91, 1, 9), x(14, 1, 9), 7), Faux3A2(True,
        y(9, 1), y(8, 1), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 424)\} \vee
        \{Faux2(False, x(444, 1, 9), x(423, 1, 9), y(11, 1), x(398, 1, 9), x(322, 1, 9),
        x(245, 1, 9), x(168, 1, 9), x(91, 1, 9), x(14, 1, 9), 8), Faux2(False, y(9, 1),
        y(8, 1), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 425)\}) \wedge
    \forall_{\{x(31, 1, 11), x(108, 1, 11), x(185, 1, 11), x(262, 1, 11), x(339, 1, 11), x(403, 1, 11), x(427, 1, 11), x(446, 1, 11)\}} (\{Faux2(
        True, x(446, 1, 11), y(8, 1), x(427, 1, 11), x(403, 1, 11), x(339, 1, 11),
        x(262, 1, 11), x(185, 1, 11), x(108, 1, 11), x(31, 1, 11), 41), Faux2(True,
        y(9, 1), y(8, 1), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 425)\} \vee
        \{Faux3A1(False, x(446, 1, 11), x(1, 1), x(427, 1, 11), x(403, 1, 11), x(339, 1, 11),
        x(262, 1, 11), x(185, 1, 11), x(108, 1, 11), x(31, 1, 11), 42), Faux3A1(False,
        y(9, 1), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 426)\}) \wedge
    \forall_{\{x(15, 1, 9), x(92, 1, 9), x(169, 1, 9), x(246, 1, 9), x(323, 1, 9), x(399, 1, 9), x(424, 1, 9)\}} (\{Faux4(True,
        x(424, 1, 9), y(11, 1), x(399, 1, 9), x(323, 1, 9), x(246, 1, 9),
        x(169, 1, 9), x(92, 1, 9), x(15, 1, 9), 9), Faux4(True, y(9, 1),
        y(11, 1), y(8, 2), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 430)\} \vee
        \{Faux5A2(False, x(424, 1, 9), x(1, 1), x(399, 1, 9), x(323, 1, 9),
        x(246, 1, 9), x(169, 1, 9), x(92, 1, 9), x(15, 1, 9), 10), Faux5A2(False,
        y(9, 1), y(7), y(8, 2), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 431)\}) \wedge
    \forall_{\{x(75, 1, 4), x(152, 1, 4), x(229, 1, 4), x(306, 1, 4), x(383, 1, 4)\}} (\{P1(True, y(9, 1), x(383, 1, 4),
        x(306, 1, 4), x(229, 1, 4), x(152, 1, 4), x(75, 1, 4), 131),
        P1(True, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(8, 1), y(7), 434)\} \vee
        \{FauxR(False, y(9, 1), x(383, 1, 4), x(306, 1, 4), x(229, 1, 4),
        x(152, 1, 4), x(75, 1, 4), y(6), 132),
        FauxR(False, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(8, 1), y(7), y(6), 435)\}) \wedge
    \forall_{\{x(12, 1, 12), x(89, 1, 12), x(166, 1, 12), x(243, 1, 12), x(320, 1, 12), x(396, 1, 12), x(421, 1, 12), x(442, 1, 12)\}} (\{Faux1A2(
        True, x(442, 1, 12), x(421, 1, 12), x(396, 1, 12), x(320, 1, 12), x(243, 1, 12),
        x(166, 1, 12), x(89, 1, 12), x(1, 1), x(12, 1, 12), 3), Faux1A2(True,
        y(11, 3), y(8, 2), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 436)\} \vee
        \{Faux2(False, y(11, 1), x(421, 1, 12), x(396, 1, 12), x(320, 1, 12),
        x(243, 1, 12), x(166, 1, 12), x(89, 1, 12), x(1, 1), x(12, 1, 12), 4), Faux2(False,

```

$$\begin{aligned}
& y(11, 1), y(8, 2), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 437) \} \wedge \\
& \forall_{\{x(32, 1, 12), x(109, 1, 12), x(186, 1, 12), x(263, 1, 12), x(340, 1, 12), x(404, 1, 12), x(428, 1, 12), x(447, 1, 12)\}} \{ \{ \text{Faux3A1} \\
& \text{True}, x(447, 1, 12), x(428, 1, 12), x(1, 1), x(404, 1, 12), x(340, 1, 12), \\
& x(263, 1, 12), x(186, 1, 12), x(109, 1, 12), x(32, 1, 12), 43), \text{Faux3A1}(\text{True}, \\
& y(11, 1), y(8, 1), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 438) \} \vee \\
& \{ \text{Faux2}(\text{False}, x(447, 1, 12), x(428, 1, 12), y(8, 1), x(404, 1, 12), x(340, 1, 12), \\
& x(263, 1, 12), x(186, 1, 12), x(109, 1, 12), x(32, 1, 12), 44), \text{Faux2}(\text{False}, \\
& y(11, 1), y(8, 1), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 439) \} \} \wedge \\
& \forall_{\{x(31, 1, 12), x(108, 1, 12), x(185, 1, 12), x(262, 1, 12), x(339, 1, 12), x(403, 1, 12), x(427, 1, 12), x(446, 1, 12)\}} \{ \{ \text{Faux2} \\
& \text{True}, x(446, 1, 12), y(8, 1), x(427, 1, 12), x(403, 1, 12), x(339, 1, 12), \\
& x(262, 1, 12), x(185, 1, 12), x(108, 1, 12), x(31, 1, 12), 41), \text{Faux2}(\text{True}, \\
& y(11, 1), y(8, 1), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 439) \} \vee \\
& \{ \text{Faux3A1}(\text{False}, x(446, 1, 12), x(1, 1), x(427, 1, 12), x(403, 1, 12), x(339, 1, 12), \\
& x(262, 1, 12), x(185, 1, 12), x(108, 1, 12), x(31, 1, 12), 42), \text{Faux3A1}(\text{False}, \\
& y(11, 1), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 440) \} \} \wedge \\
& \forall_{\{x(33, 1, 12), x(110, 1, 12), x(187, 1, 12), x(264, 1, 12), x(341, 1, 12), x(405, 1, 12), x(429, 1, 12)\}} \{ \{ \text{Faux4} \\
& \text{True}, x(429, 1, 12), y(8, 1), x(405, 1, 12), x(341, 1, 12), x(264, 1, 12), \\
& x(187, 1, 12), x(110, 1, 12), x(33, 1, 12), 45), \text{Faux4}(\text{True}, y(11, 1), \\
& y(8, 1), y(8, 2), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 444) \} \vee \\
& \{ \text{Faux5A1}(\text{False}, x(429, 1, 12), x(1, 1), x(405, 1, 12), x(341, 1, 12), \\
& x(264, 1, 12), x(187, 1, 12), x(110, 1, 12), x(33, 1, 12), 46), \text{Faux5A1} \\
& \text{False}, y(11, 1), y(7), y(8, 2), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 445) \} \} \wedge \\
& \forall_{\{x(24, 1, 6), x(101, 1, 6), x(178, 1, 6), x(255, 1, 6), x(332, 1, 6)\}} \{ \{ \text{P} \\
& (\text{True}, y(11, 1), x(332, 1, 6), \\
& x(255, 1, 6), x(178, 1, 6), x(101, 1, 6), x(24, 1, 6), 27), \\
& \text{P}(\text{True}, y(11, 1), y(8, 3), y(11, 1), y(8, 1), y(9, 1), y(7), 448) \} \vee \\
& \{ \text{FauxR}(\text{False}, y(11, 1), x(332, 1, 6), x(255, 1, 6), \\
& x(178, 1, 6), x(101, 1, 6), x(24, 1, 6), y(6), 28), \\
& \text{FauxR}(\text{False}, y(11, 1), y(8, 3), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 449) \} \} \wedge \\
& \forall_{\{x(30, 1, 19), x(107, 1, 19), x(184, 1, 19), x(261, 1, 19), x(338, 1, 19), x(402, 1, 19), x(426, 1, 19), x(445, 1, 19)\}} \{ \{ \text{Faux1A1} \\
& \text{True}, x(445, 1, 19), x(426, 1, 19), x(402, 1, 19), x(338, 1, 19), x(261, 1, 19), \\
& x(184, 1, 19), x(107, 1, 19), x(1, 1), x(30, 1, 19), 39), \text{Faux1A1}(\text{True}, \\
& y(8, 3), y(8, 2), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 450) \} \vee \\
& \{ \text{Faux2}(\text{False}, y(8, 1), x(426, 1, 19), x(402, 1, 19), x(338, 1, 19), x(261, 1, 19), \\
& x(184, 1, 19), x(107, 1, 19), x(1, 1), x(30, 1, 19), 40), \text{Faux2}(\text{False}, \\
& y(8, 1), y(8, 2), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 451) \} \} \wedge \\
& \forall_{\{x(32, 1, 13), x(109, 1, 13), x(186, 1, 13), x(263, 1, 13), x(340, 1, 13), x(404, 1, 13), x(428, 1, 13), x(447, 1, 13)\}} \{ \{ \text{Faux3A1} \\
& \text{True}, x(447, 1, 13), x(428, 1, 13), x(1, 1), x(404, 1, 13), x(340, 1, 13), \\
& x(263, 1, 13), x(186, 1, 13), x(109, 1, 13), x(32, 1, 13), 43), \text{Faux3A1}(\text{True}, \\
& y(8, 1), y(10, 1), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 452) \} \vee \\
& \{ \text{Faux2}(\text{False}, x(447, 1, 13), x(428, 1, 13), y(8, 1), x(404, 1, 13), x(340, 1, 13), \\
& x(263, 1, 13), x(186, 1, 13), x(109, 1, 13), x(32, 1, 13), 44), \text{Faux2}(\text{False}, \\
& y(8, 1), y(10, 1), y(8, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 453) \} \} \wedge
\end{aligned}$$

$$\begin{aligned}
& \forall_{\{x(47, 1, 6), x(124, 1, 6), x(201, 1, 6), x(278, 1, 6), x(355, 1, 6), x(409, 1, 6), x(432, 1, 6), x(449, 1, 6)\}} (\{\text{Faux2} \\
& \quad \text{True}, x(449, 1, 6), y(10, 1), x(432, 1, 6), x(409, 1, 6), x(355, 1, 6), \\
& \quad x(278, 1, 6), x(201, 1, 6), x(124, 1, 6), x(47, 1, 6), 75), \text{Faux2}(\text{True}, y(8, 1), \\
& \quad y(10, 1), y(8, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 453)\} \vee \\
& \quad \{\text{Faux3A3}(\text{False}, x(449, 1, 6), x(1, 1), x(432, 1, 6), x(409, 1, 6), x(355, 1, 6), \\
& \quad x(278, 1, 6), x(201, 1, 6), x(124, 1, 6), x(47, 1, 6), 76), \text{Faux3A3}(\text{False}, \\
& \quad y(8, 1), y(7), y(8, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 454)\}) \wedge \\
& \forall_{\{x(33, 1, 13), x(110, 1, 13), x(187, 1, 13), x(264, 1, 13), x(341, 1, 13), x(405, 1, 13), x(429, 1, 13)\}} (\{\text{Faux4} \\
& \quad (\text{True}, x(429, 1, 13), y(8, 1), x(405, 1, 13), x(341, 1, 13), x(264, 1, 13), \\
& \quad x(187, 1, 13), x(110, 1, 13), x(33, 1, 13), 45), \text{Faux4}(\text{True}, y(8, 1), \\
& \quad y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 458)\} \vee \\
& \quad \{\text{Faux5A1}(\text{False}, x(429, 1, 13), x(1, 1), x(405, 1, 13), x(341, 1, 13), \\
& \quad x(264, 1, 13), x(187, 1, 13), x(110, 1, 13), x(33, 1, 13), 46), \text{Faux5A1} \\
& \quad (\text{False}, y(8, 1), y(7), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 459)\}) \wedge \\
& \forall_{\{x(23, 1, 9), x(100, 1, 9), x(177, 1, 9), x(254, 1, 9), x(331, 1, 9)\}} (\{\text{P} \\
& \quad (\text{True}, y(8, 1), x(331, 1, 9), x(254, 1, 9), x(177, 1, 9), x(100, 1, 9), x(23, 1, 9), 25), \\
& \quad \text{P}(\text{True}, y(8, 1), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), 462)\} \vee \{\text{P1} \\
& \quad (\text{False}, y(11, 1), x(331, 1, 9), x(254, 1, 9), x(177, 1, 9), x(100, 1, 9), x(23, 1, 9), 26), \\
& \quad \text{P1}(\text{False}, y(11, 1), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), 463)\}) \wedge \\
& \forall_{\{x(25, 1, 9), x(102, 1, 9), x(179, 1, 9), x(256, 1, 9), x(333, 1, 9)\}} (\{\text{P1} \\
& \quad (\text{True}, y(11, 1), x(333, 1, 9), x(256, 1, 9), x(179, 1, 9), x(102, 1, 9), x(25, 1, 9), 29), \\
& \quad \text{P1}(\text{True}, y(11, 1), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), 463)\} \vee \\
& \quad \{\text{FauxR}(\text{False}, y(11, 1), x(333, 1, 9), x(256, 1, 9), \\
& \quad x(179, 1, 9), x(102, 1, 9), x(25, 1, 9), y(5), 30), \\
& \quad \text{FauxR}(\text{False}, y(11, 1), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 464)\}) \wedge \\
& \forall_{\{x(30, 1, 20), x(107, 1, 20), x(184, 1, 20), x(261, 1, 20), x(338, 1, 20), x(402, 1, 20), x(426, 1, 20), x(445, 1, 20)\}} (\{\text{Faux1A1} \\
& \quad (\text{True}, x(445, 1, 20), x(426, 1, 20), x(402, 1, 20), x(338, 1, 20), x(261, 1, 20), \\
& \quad x(184, 1, 20), x(107, 1, 20), x(1, 1), x(30, 1, 20), 39), \text{Faux1A1}(\text{True}, \\
& \quad y(8, 3), y(10, 2), y(7), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 465)\} \vee \\
& \quad \{\text{Faux2}(\text{False}, y(8, 1), x(426, 1, 20), x(402, 1, 20), x(338, 1, 20), x(261, 1, 20), \\
& \quad x(184, 1, 20), x(107, 1, 20), x(1, 1), x(30, 1, 20), 40), \text{Faux2}(\text{False}, y(8, 1), \\
& \quad y(10, 2), y(7), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 466)\}) \wedge \\
& \forall_{\{x(48, 1, 6), x(125, 1, 6), x(202, 1, 6), x(279, 1, 6), x(356, 1, 6), x(410, 1, 6), x(433, 1, 6), x(450, 1, 6)\}} (\{\text{Faux3A3} \\
& \quad (\text{True}, x(450, 1, 6), x(433, 1, 6), x(1, 1), x(410, 1, 6), x(356, 1, 6), \\
& \quad x(279, 1, 6), x(202, 1, 6), x(125, 1, 6), x(48, 1, 6), 77), \text{Faux3A3}(\text{True}, \\
& \quad y(8, 1), y(11, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 467)\} \vee \\
& \quad \{\text{Faux2}(\text{False}, x(450, 1, 6), x(433, 1, 6), y(10, 1), x(410, 1, 6), x(356, 1, 6), \\
& \quad x(279, 1, 6), x(202, 1, 6), x(125, 1, 6), x(48, 1, 6), 78), \text{Faux2}(\text{False}, y(8, 1), \\
& \quad y(11, 1), y(10, 1), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 468)\}) \wedge \\
& \forall_{\{x(13, 1, 10), x(90, 1, 10), x(167, 1, 10), x(244, 1, 10), x(321, 1, 10), x(397, 1, 10), x(422, 1, 10), x(443, 1, 10)\}} (\{\text{Faux2} \\
& \quad (\text{True}, x(443, 1, 10), y(11, 1), x(422, 1, 10), x(397, 1, 10), x(321, 1, 10), \\
& \quad x(244, 1, 10), x(167, 1, 10), x(90, 1, 10), x(13, 1, 10), 5), \text{Faux2}(\text{True}, y(8, 1),
\end{aligned}$$

$$\begin{aligned}
& y(11, 1), y(10, 1), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 468 \} \vee \\
& \{ \text{Faux3A2}(\text{False}, x(443, 1, 10), x(1, 1), x(422, 1, 10), x(397, 1, 10), x(321, 1, 10), \\
& x(244, 1, 10), x(167, 1, 10), x(90, 1, 10), x(13, 1, 10), 6), \text{Faux3A2}(\text{False}, \\
& y(8, 1), y(7), y(10, 1), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 469) \} \wedge \\
& \forall_{\{x(49, 1, 6), x(126, 1, 6), x(203, 1, 6), x(280, 1, 6), x(357, 1, 6), x(411, 1, 6), x(434, 1, 6)\}} (\{ \text{Faux4}(\text{True}, \\
& x(434, 1, 6), y(10, 1), x(411, 1, 6), x(357, 1, 6), x(280, 1, 6), \\
& x(203, 1, 6), x(126, 1, 6), x(49, 1, 6), 79), \text{Faux4}(\text{True}, y(8, 1), \\
& y(10, 1), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 473) \} \vee \\
& \{ \text{Faux5A3}(\text{False}, x(434, 1, 6), x(1, 1), x(411, 1, 6), x(357, 1, 6), \\
& x(280, 1, 6), x(203, 1, 6), x(126, 1, 6), x(49, 1, 6), 80), \text{Faux5A3}(\text{False}, \\
& y(8, 1), y(7), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 474) \} \wedge \\
& \forall_{\{x(41, 1, 7), x(118, 1, 7), x(195, 1, 7), x(272, 1, 7), x(349, 1, 7)\}} (\{ \text{P1}(\text{True}, y(8, 1), x(349, 1, 7), \\
& x(272, 1, 7), x(195, 1, 7), x(118, 1, 7), x(41, 1, 7), 61), \\
& \text{P1}(\text{True}, y(8, 1), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), 477) \} \vee \\
& \{ \text{FauxR}(\text{False}, y(8, 1), x(349, 1, 7), x(272, 1, 7), x(195, 1, 7), \\
& x(118, 1, 7), x(41, 1, 7), y(5), 62), \\
& \text{FauxR}(\text{False}, y(8, 1), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 478) \} \} \wedge \\
& \forall_{\{x(46, 1, 9), x(123, 1, 9), x(200, 1, 9), x(277, 1, 9), x(354, 1, 9), x(408, 1, 9), x(431, 1, 9), x(448, 1, 9)\}} (\{ \text{Faux1A3}( \\
& \text{True}, x(448, 1, 9), x(431, 1, 9), x(408, 1, 9), x(354, 1, 9), x(277, 1, 9), \\
& x(200, 1, 9), x(123, 1, 9), x(1, 1), x(46, 1, 9), 73), \text{Faux1A3}(\text{True}, y(10, 3), \\
& y(11, 2), y(7), y(9, 1), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 479) \} \vee \\
& \{ \text{Faux2}(\text{False}, y(10, 1), x(431, 1, 9), x(408, 1, 9), x(354, 1, 9), x(277, 1, 9), \\
& x(200, 1, 9), x(123, 1, 9), x(1, 1), x(46, 1, 9), 74), \text{Faux2}(\text{False}, y(10, 1), \\
& y(11, 2), y(7), y(9, 1), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 480) \} \wedge \\
& \forall_{\{x(14, 1, 10), x(91, 1, 10), x(168, 1, 10), x(245, 1, 10), x(322, 1, 10), x(398, 1, 10), x(423, 1, 10), x(444, 1, 10)\}} (\{ \text{Faux3A2}( \\
& \text{True}, x(444, 1, 10), x(423, 1, 10), x(1, 1), x(398, 1, 10), x(322, 1, 10), \\
& x(245, 1, 10), x(168, 1, 10), x(91, 1, 10), x(14, 1, 10), 7), \text{Faux3A2}(\text{True}, \\
& y(10, 1), y(8, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 481) \} \vee \\
& \{ \text{Faux2}(\text{False}, x(444, 1, 10), x(423, 1, 10), y(11, 1), x(398, 1, 10), x(322, 1, 10), \\
& x(245, 1, 10), x(168, 1, 10), x(91, 1, 10), x(14, 1, 10), 8), \text{Faux2}(\text{False}, \\
& y(10, 1), y(8, 1), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 482) \} \} \wedge \\
& \forall_{\{x(31, 1, 13), x(108, 1, 13), x(185, 1, 13), x(262, 1, 13), x(339, 1, 13), x(403, 1, 13), x(427, 1, 13), x(446, 1, 13)\}} (\{ \text{Faux2}( \\
& \text{True}, x(446, 1, 13), y(8, 1), x(427, 1, 13), x(403, 1, 13), x(339, 1, 13), \\
& x(262, 1, 13), x(185, 1, 13), x(108, 1, 13), x(31, 1, 13), 41), \text{Faux2}(\text{True}, \\
& y(10, 1), y(8, 1), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 482) \} \vee \\
& \{ \text{Faux3A1}(\text{False}, x(446, 1, 13), x(1, 1), x(427, 1, 13), x(403, 1, 13), x(339, 1, 13), \\
& x(262, 1, 13), x(185, 1, 13), x(108, 1, 13), x(31, 1, 13), 42), \text{Faux3A1}(\text{False}, \\
& y(10, 1), y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 483) \} \} \wedge \\
& \forall_{\{x(15, 1, 10), x(92, 1, 10), x(169, 1, 10), x(246, 1, 10), x(323, 1, 10), x(399, 1, 10), x(424, 1, 10)\}} (\{ \text{Faux4}(\text{True}, \\
& x(424, 1, 10), y(11, 1), x(399, 1, 10), x(323, 1, 10), x(246, 1, 10), \\
& x(169, 1, 10), x(92, 1, 10), x(15, 1, 10), 9), \text{Faux4}(\text{True}, y(10, 1), \\
& y(11, 1), y(8, 2), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 487) \} \vee
\end{aligned}$$

$\{Faux5A2(\text{False}, x(424, 1, 10), x(1, 1), x(399, 1, 10), x(323, 1, 10),$   
 $x(246, 1, 10), x(169, 1, 10), x(92, 1, 10), x(15, 1, 10), 10), Faux5A2(\text{False},$   
 $y(10, 1), y(7), y(8, 2), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 488)\} \wedge$   
 $\forall_{\{x(58, 1, 5), x(135, 1, 5), x(212, 1, 5), x(289, 1, 5), x(366, 1, 5)\}} (\{P1(\text{True}, y(10, 1), x(366, 1, 5),$   
 $x(289, 1, 5), x(212, 1, 5), x(135, 1, 5), x(58, 1, 5), 97),$   
 $P1(\text{True}, y(10, 1), y(11, 3), y(11, 1), y(11, 1), y(8, 1), y(7), 491)\} \vee$   
 $\{FauxR(\text{False}, y(10, 1), x(366, 1, 5), x(289, 1, 5),$   
 $x(212, 1, 5), x(135, 1, 5), x(58, 1, 5), y(6), 98),$   
 $FauxR(\text{False}, y(10, 1), y(11, 3), y(11, 1), y(11, 1), y(8, 1), y(7), y(6), 492)\}) \wedge$   
 $\forall_{\{x(12, 1, 13), x(89, 1, 13), x(166, 1, 13), x(243, 1, 13), x(320, 1, 13), x(396, 1, 13), x(421, 1, 13), x(442, 1, 13)\}} (\{Faux1A2($   
 $\text{True}, x(442, 1, 13), x(421, 1, 13), x(396, 1, 13), x(320, 1, 13), x(243, 1, 13),$   
 $x(166, 1, 13), x(89, 1, 13), x(1, 1), x(12, 1, 13), 3), Faux1A2(\text{True}, y(11, 3),$   
 $y(8, 2), y(7), y(11, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 493)\} \vee$   
 $\{Faux2(\text{False}, y(11, 1), x(421, 1, 13), x(396, 1, 13), x(320, 1, 13),$   
 $x(243, 1, 13), x(166, 1, 13), x(89, 1, 13), x(1, 1), x(12, 1, 13), 4), Faux2(\text{False},$   
 $y(11, 1), y(8, 2), y(7), y(11, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 494)\}) \wedge$   
 $\forall_{\{x(32, 1, 14), x(109, 1, 14), x(186, 1, 14), x(263, 1, 14), x(340, 1, 14), x(404, 1, 14), x(428, 1, 14), x(447, 1, 14)\}} (\{Faux3A1($   
 $\text{True}, x(447, 1, 14), x(428, 1, 14), x(1, 1), x(404, 1, 14), x(340, 1, 14),$   
 $x(263, 1, 14), x(186, 1, 14), x(109, 1, 14), x(32, 1, 14), 43), Faux3A1(\text{True},$   
 $y(11, 1), y(9, 1), y(7), y(11, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 495)\} \vee$   
 $\{Faux2(\text{False}, x(447, 1, 14), x(428, 1, 14), y(8, 1), x(404, 1, 14), x(340, 1, 14),$   
 $x(263, 1, 14), x(186, 1, 14), x(109, 1, 14), x(32, 1, 14), 44), Faux2(\text{False},$   
 $y(11, 1), y(9, 1), y(8, 1), y(11, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 496)\}) \wedge$   
 $\forall_{\{x(64, 1, 6), x(141, 1, 6), x(218, 1, 6), x(295, 1, 6), x(372, 1, 6), x(415, 1, 6), x(437, 1, 6), x(452, 1, 6)\}} (\{Faux2($   
 $\text{True}, x(452, 1, 6), y(9, 1), x(437, 1, 6), x(415, 1, 6), x(372, 1, 6),$   
 $x(295, 1, 6), x(218, 1, 6), x(141, 1, 6), x(64, 1, 6), 109), Faux2(\text{True}, y(11, 1),$   
 $y(9, 1), y(8, 1), y(11, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 496)\} \vee$   
 $\{Faux3A4(\text{False}, x(452, 1, 6), x(1, 1), x(437, 1, 6), x(415, 1, 6), x(372, 1, 6),$   
 $x(295, 1, 6), x(218, 1, 6), x(141, 1, 6), x(64, 1, 6), 110), Faux3A4(\text{False},$   
 $y(11, 1), y(7), y(8, 1), y(11, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 497)\}) \wedge$   
 $\forall_{\{x(33, 1, 14), x(110, 1, 14), x(187, 1, 14), x(264, 1, 14), x(341, 1, 14), x(405, 1, 14), x(429, 1, 14)\}} (\{Faux4(\text{True},$   
 $x(429, 1, 14), y(8, 1), x(405, 1, 14), x(341, 1, 14), x(264, 1, 14),$   
 $x(187, 1, 14), x(110, 1, 14), x(33, 1, 14), 45), Faux4(\text{True}, y(11, 1),$   
 $y(8, 1), y(9, 2), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 501)\} \vee$   
 $\{Faux5A1(\text{False}, x(429, 1, 14), x(1, 1), x(405, 1, 14), x(341, 1, 14),$   
 $x(264, 1, 14), x(187, 1, 14), x(110, 1, 14), x(33, 1, 14), 46), Faux5A1($   
 $\text{False}, y(11, 1), y(7), y(9, 2), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 502)\}) \wedge$   
 $\forall_{\{x(24, 1, 7), x(101, 1, 7), x(178, 1, 7), x(255, 1, 7), x(332, 1, 7)\}} (\{P(\text{True}, y(11, 1), x(332, 1, 7),$   
 $x(255, 1, 7), x(178, 1, 7), x(101, 1, 7), x(24, 1, 7), 27),$   
 $P(\text{True}, y(11, 1), y(8, 3), y(11, 1), y(8, 1), y(10, 1), y(7), 505)\} \vee$   
 $\{FauxR(\text{False}, y(11, 1), x(332, 1, 7), x(255, 1, 7),$   
 $x(178, 1, 7), x(101, 1, 7), x(24, 1, 7), y(6), 28),$

$\text{FauxR}(\text{False}, y(11, 1), y(8, 3), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 506)) \wedge$   
 $\forall_{\{x(30, 1, 21), x(107, 1, 21), x(184, 1, 21), x(261, 1, 21), x(338, 1, 21), x(402, 1, 21), x(426, 1, 21), x(445, 1, 21)\}} (\{\text{Faux1A1}(\text{True}, x(445, 1, 21), x(426, 1, 21), x(402, 1, 21), x(338, 1, 21), x(261, 1, 21), x(184, 1, 21), x(107, 1, 21), x(1, 1), x(30, 1, 21), 39), \text{Faux1A1}(\text{True}, y(8, 3), y(9, 2), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 507)\}) \vee$   
 $\{\text{Faux2}(\text{False}, y(8, 1), x(426, 1, 21), x(402, 1, 21), x(338, 1, 21), x(261, 1, 21), x(184, 1, 21), x(107, 1, 21), x(1, 1), x(30, 1, 21), 40), \text{Faux2}(\text{False}, y(8, 1), y(9, 2), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 508)\}) \wedge$   
 $\forall_{\{x(65, 1, 6), x(142, 1, 6), x(219, 1, 6), x(296, 1, 6), x(373, 1, 6), x(416, 1, 6), x(438, 1, 6), x(453, 1, 6)\}} (\{\text{Faux3A4}(\text{True}, x(453, 1, 6), x(438, 1, 6), x(1, 1), x(416, 1, 6), x(373, 1, 6), x(296, 1, 6), x(219, 1, 6), x(142, 1, 6), x(65, 1, 6), 111), \text{Faux3A4}(\text{True}, y(8, 1), y(11, 1), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 509)\}) \vee$   
 $\{\text{Faux2}(\text{False}, x(453, 1, 6), x(438, 1, 6), y(9, 1), x(416, 1, 6), x(373, 1, 6), x(296, 1, 6), x(219, 1, 6), x(142, 1, 6), x(65, 1, 6), 112), \text{Faux2}(\text{False}, y(8, 1), y(11, 1), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 510)\}) \wedge$   
 $\forall_{\{x(13, 1, 11), x(90, 1, 11), x(167, 1, 11), x(244, 1, 11), x(321, 1, 11), x(397, 1, 11), x(422, 1, 11), x(443, 1, 11)\}} (\{\text{Faux2}(\text{True}, x(443, 1, 11), y(11, 1), x(422, 1, 11), x(397, 1, 11), x(321, 1, 11), x(244, 1, 11), x(167, 1, 11), x(90, 1, 11), x(13, 1, 11), 5), \text{Faux2}(\text{True}, y(8, 1), y(11, 1), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 510)\}) \vee$   
 $\{\text{Faux3A2}(\text{False}, x(443, 1, 11), x(1, 1), x(422, 1, 11), x(397, 1, 11), x(321, 1, 11), x(244, 1, 11), x(167, 1, 11), x(90, 1, 11), x(13, 1, 11), 6), \text{Faux3A2}(\text{False}, y(8, 1), y(7), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 511)\}) \wedge$   
 $\forall_{\{x(66, 1, 6), x(143, 1, 6), x(220, 1, 6), x(297, 1, 6), x(374, 1, 6), x(417, 1, 6), x(439, 1, 6)\}} (\{\text{Faux4}(\text{True}, x(439, 1, 6), y(9, 1), x(417, 1, 6), x(374, 1, 6), x(297, 1, 6), x(220, 1, 6), x(143, 1, 6), x(66, 1, 6), 113), \text{Faux4}(\text{True}, y(8, 1), y(9, 1), y(11, 2), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 515)\}) \vee$   
 $\{\text{Faux5A4}(\text{False}, x(439, 1, 6), x(1, 1), x(417, 1, 6), x(374, 1, 6), x(297, 1, 6), x(220, 1, 6), x(143, 1, 6), x(66, 1, 6), 114), \text{Faux5A4}(\text{False}, y(8, 1), y(7), y(11, 2), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 516)\}) \wedge$   
 $\forall_{\{x(23, 1, 10), x(100, 1, 10), x(177, 1, 10), x(254, 1, 10), x(331, 1, 10)\}} (\{\text{P}(\text{True}, y(8, 1), x(331, 1, 10), x(254, 1, 10), x(177, 1, 10), x(100, 1, 10), x(23, 1, 10), 25), \text{P}(\text{True}, y(8, 1), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), 519)\}) \vee$   
 $\{\text{P1}(\text{False}, y(11, 1), x(331, 1, 10), x(254, 1, 10), x(177, 1, 10), x(100, 1, 10), x(23, 1, 10), 26), \text{P1}(\text{False}, y(11, 1), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), 520)\}) \wedge$   
 $\forall_{\{x(25, 1, 10), x(102, 1, 10), x(179, 1, 10), x(256, 1, 10), x(333, 1, 10)\}} (\{\text{P1}(\text{True}, y(11, 1), x(333, 1, 10), x(256, 1, 10), x(179, 1, 10), x(102, 1, 10), x(25, 1, 10), 29), \text{P1}(\text{True}, y(11, 1), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), 520)\}) \vee$   
 $\{\text{FauxR}(\text{False}, y(11, 1), x(333, 1, 10), x(256, 1, 10), x(179, 1, 10), x(102, 1, 10), x(25, 1, 10), y(5), 30), \text{FauxR}(\text{False}, y(11, 1), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 521)\}) \wedge$   
 $\forall_{\{x(63, 1, 9), x(140, 1, 9), x(217, 1, 9), x(294, 1, 9), x(371, 1, 9), x(414, 1, 9), x(436, 1, 9), x(451, 1, 9)\}} (\{\text{Faux1A4}($

$\text{True}, x(451, 1, 9), x(436, 1, 9), x(414, 1, 9), x(371, 1, 9), x(294, 1, 9),$   
 $x(217, 1, 9), x(140, 1, 9), x(1, 1), x(63, 1, 9), 107), \text{Faux1A4}(\text{True}, y(9, 3),$   
 $y(11, 2), y(7), y(8, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 522)\} \vee$   
 $\{\text{Faux2}(\text{False}, y(9, 1), x(436, 1, 9), x(414, 1, 9), x(371, 1, 9), x(294, 1, 9),$   
 $x(217, 1, 9), x(140, 1, 9), x(1, 1), x(63, 1, 9), 108), \text{Faux2}(\text{False}, y(9, 1),$   
 $y(11, 2), y(7), y(8, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 523)\} \wedge$   
 $\forall_{\{x(14, 1, 11), x(91, 1, 11), x(168, 1, 11), x(245, 1, 11), x(322, 1, 11), x(398, 1, 11), x(423, 1, 11), x(444, 1, 11)\}} (\{\text{Faux3A2}($   
 $\text{True}, x(444, 1, 11), x(423, 1, 11), x(1, 1), x(398, 1, 11), x(322, 1, 11),$   
 $x(245, 1, 11), x(168, 1, 11), x(91, 1, 11), x(14, 1, 11), 7), \text{Faux3A2}(\text{True},$   
 $y(9, 1), y(11, 1), y(7), y(8, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 524)\} \vee$   
 $\{\text{Faux2}(\text{False}, x(444, 1, 11), x(423, 1, 11), y(11, 1), x(398, 1, 11), x(322, 1, 11),$   
 $x(245, 1, 11), x(168, 1, 11), x(91, 1, 11), x(14, 1, 11), 8), \text{Faux2}(\text{False}, y(9, 1),$   
 $y(11, 1), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 525)\}) \wedge$   
 $\forall_{\{x(13, 1, 12), x(90, 1, 12), x(167, 1, 12), x(244, 1, 12), x(321, 1, 12), x(397, 1, 12), x(422, 1, 12), x(443, 1, 12)\}} (\{\text{Faux2}($   
 $\text{True}, x(443, 1, 12), y(11, 1), x(422, 1, 12), x(397, 1, 12), x(321, 1, 12),$   
 $x(244, 1, 12), x(167, 1, 12), x(90, 1, 12), x(13, 1, 12), 5), \text{Faux2}(\text{True}, y(9, 1),$   
 $y(11, 1), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 525)\} \vee$   
 $\{\text{Faux3A2}(\text{False}, x(443, 1, 12), x(1, 1), x(422, 1, 12), x(397, 1, 12), x(321, 1, 12),$   
 $x(244, 1, 12), x(167, 1, 12), x(90, 1, 12), x(13, 1, 12), 6), \text{Faux3A2}(\text{False},$   
 $y(9, 1), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 526)\}) \wedge$   
 $\forall_{\{x(15, 1, 11), x(92, 1, 11), x(169, 1, 11), x(246, 1, 11), x(323, 1, 11), x(399, 1, 11), x(424, 1, 11)\}} (\{\text{Faux4}(\text{True},$   
 $x(424, 1, 11), y(11, 1), x(399, 1, 11), x(323, 1, 11), x(246, 1, 11),$   
 $x(169, 1, 11), x(92, 1, 11), x(15, 1, 11), 9), \text{Faux4}(\text{True}, y(9, 1),$   
 $y(11, 1), y(11, 2), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 530)\} \vee$   
 $\{\text{Faux5A2}(\text{False}, x(424, 1, 11), x(1, 1), x(399, 1, 11), x(323, 1, 11),$   
 $x(246, 1, 11), x(169, 1, 11), x(92, 1, 11), x(15, 1, 11), 10), \text{Faux5A2}(\text{False},$   
 $y(9, 1), y(7), y(11, 2), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 531)\}) \wedge$   
 $\forall_{\{x(75, 1, 5), x(152, 1, 5), x(229, 1, 5), x(306, 1, 5), x(383, 1, 5)\}} (\{\text{P1}(\text{True}, y(9, 1), x(383, 1, 5),$   
 $x(306, 1, 5), x(229, 1, 5), x(152, 1, 5), x(75, 1, 5), 131),$   
 $\text{P1}(\text{True}, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 534)\} \vee$   
 $\{\text{FauxR}(\text{False}, y(9, 1), x(383, 1, 5), x(306, 1, 5), x(229, 1, 5),$   
 $x(152, 1, 5), x(75, 1, 5), y(6), 132),$   
 $\text{FauxR}(\text{False}, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 535)\}) \wedge$   
 $\forall_{\{x(12, 1, 14), x(89, 1, 14), x(166, 1, 14), x(243, 1, 14), x(320, 1, 14), x(396, 1, 14), x(421, 1, 14), x(442, 1, 14)\}} (\{\text{Faux1A2}($   
 $\text{True}, x(442, 1, 14), x(421, 1, 14), x(396, 1, 14), x(320, 1, 14), x(243, 1, 14),$   
 $x(166, 1, 14), x(89, 1, 14), x(1, 1), x(12, 1, 14), 3), \text{Faux1A2}(\text{True}, y(11, 3),$   
 $y(11, 2), y(7), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 536)\} \vee$   
 $\{\text{Faux2}(\text{False}, y(11, 1), x(421, 1, 14), x(396, 1, 14), x(320, 1, 14),$   
 $x(243, 1, 14), x(166, 1, 14), x(89, 1, 14), x(1, 1), x(12, 1, 14), 4), \text{Faux2}(\text{False},$   
 $y(11, 1), y(11, 2), y(7), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 537)\}) \wedge$   
 $\forall_{\{x(14, 1, 12), x(91, 1, 12), x(168, 1, 12), x(245, 1, 12), x(322, 1, 12), x(398, 1, 12), x(423, 1, 12), x(444, 1, 12)\}} (\{\text{Faux3A2}($   
 $\text{True}, x(444, 1, 12), x(423, 1, 12), x(1, 1), x(398, 1, 12), x(322, 1, 12),$

$$\begin{aligned}
& \times(245, 1, 12), \times(168, 1, 12), \times(91, 1, 12), \times(14, 1, 12), 7), \text{Faux3A2}(\text{True}, \\
& y(11, 1), y(8, 1), y(7), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 538) \} \vee \\
& \{\text{Faux2}(\text{False}, x(444, 1, 12), x(423, 1, 12), y(11, 1), x(398, 1, 12), \\
& x(322, 1, 12), x(245, 1, 12), x(168, 1, 12), x(91, 1, 12), x(14, 1, 12), 8), \\
& \text{Faux2}(\text{False}, y(11, 1), y(8, 1), y(11, 1), y(10, 1), \\
& y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 539) \} \wedge \\
& \forall_{\{x(31, 1, 14), x(108, 1, 14), x(185, 1, 14), x(262, 1, 14), x(339, 1, 14), x(403, 1, 14), x(427, 1, 14), x(446, 1, 14)\}} (\{\text{Faux2}(\text{True}, \\
& x(446, 1, 14), y(8, 1), x(427, 1, 14), x(403, 1, 14), x(339, 1, 14), x(262, 1, 14), \\
& x(185, 1, 14), x(108, 1, 14), x(31, 1, 14), 41), \text{Faux2}(\text{True}, y(11, 1), \\
& y(8, 1), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 539) \} \vee \\
& \{\text{Faux3A1}(\text{False}, x(446, 1, 14), x(1, 1), x(427, 1, 14), x(403, 1, 14), x(339, 1, 14), \\
& x(262, 1, 14), x(185, 1, 14), x(108, 1, 14), x(31, 1, 14), 42), \text{Faux3A1}(\text{False}, \\
& y(11, 1), y(7), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 540) \}) \wedge \\
& \forall_{\{x(15, 1, 12), x(92, 1, 12), x(169, 1, 12), x(246, 1, 12), x(323, 1, 12), x(399, 1, 12), x(424, 1, 12)\}} (\{\text{Faux4}(\text{True}, \\
& x(424, 1, 12), y(11, 1), x(399, 1, 12), x(323, 1, 12), x(246, 1, 12), \\
& x(169, 1, 12), x(92, 1, 12), x(15, 1, 12), 9), \text{Faux4}(\text{True}, y(11, 1), \\
& y(11, 1), y(8, 2), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 544) \} \vee \\
& \{\text{Faux5A2}(\text{False}, x(424, 1, 12), x(1, 1), x(399, 1, 12), x(323, 1, 12), \\
& x(246, 1, 12), x(169, 1, 12), x(92, 1, 12), x(15, 1, 12), 10), \text{Faux5A2}(\text{False}, \\
& y(11, 1), y(7), y(8, 2), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 545) \}) \wedge \\
& \forall_{\{x(24, 1, 8), x(101, 1, 8), x(178, 1, 8), x(255, 1, 8), x(332, 1, 8)\}} (\{\text{P}(\text{True}, y(11, 1), x(332, 1, 8), \\
& x(255, 1, 8), x(178, 1, 8), x(101, 1, 8), x(24, 1, 8), 27), \\
& \text{P}(\text{True}, y(11, 1), y(11, 3), y(11, 1), y(11, 1), y(9, 1), y(7), 548) \} \vee \\
& \{\text{FauxR}(\text{False}, y(11, 1), x(332, 1, 8), x(255, 1, 8), \\
& x(178, 1, 8), x(101, 1, 8), x(24, 1, 8), y(6), 28), \\
& \text{FauxR}(\text{False}, y(11, 1), y(11, 3), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 549) \}) \wedge \\
& \forall_{\{x(12, 1, 15), x(89, 1, 15), x(166, 1, 15), x(243, 1, 15), x(320, 1, 15), x(396, 1, 15), x(421, 1, 15), x(442, 1, 15)\}} (\{\text{Faux1A2}(\text{True}, \\
& x(442, 1, 15), x(421, 1, 15), x(396, 1, 15), x(320, 1, 15), x(243, 1, 15), \\
& x(166, 1, 15), x(89, 1, 15), x(1, 1), x(12, 1, 15), 3), \text{Faux1A2}(\text{True}, y(11, 3), \\
& y(8, 2), y(7), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 550) \} \vee \\
& \{\text{Faux2}(\text{False}, y(11, 1), x(421, 1, 15), x(396, 1, 15), x(320, 1, 15), \\
& x(243, 1, 15), x(166, 1, 15), x(89, 1, 15), x(1, 1), x(12, 1, 15), 4), \text{Faux2}(\text{False}, \\
& y(11, 1), y(8, 2), y(7), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 551) \}) \wedge \\
& \forall_{\{x(32, 1, 15), x(109, 1, 15), x(186, 1, 15), x(263, 1, 15), x(340, 1, 15), x(404, 1, 15), x(428, 1, 15), x(447, 1, 15)\}} (\{\text{Faux3A1}(\text{True}, \\
& x(447, 1, 15), x(428, 1, 15), x(1, 1), x(404, 1, 15), x(340, 1, 15), \\
& x(263, 1, 15), x(186, 1, 15), x(109, 1, 15), x(32, 1, 15), 43), \text{Faux3A1}(\text{True}, \\
& y(11, 1), y(10, 1), y(7), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 552) \} \vee \\
& \{\text{Faux2}(\text{False}, x(447, 1, 15), x(428, 1, 15), y(8, 1), x(404, 1, 15), \\
& x(340, 1, 15), x(263, 1, 15), x(186, 1, 15), x(109, 1, 15), x(32, 1, 15), 44), \\
& \text{Faux2}(\text{False}, y(11, 1), y(10, 1), y(8, 1), y(11, 1), \\
& y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 553) \}) \wedge \\
& \forall_{\{x(47, 1, 7), x(124, 1, 7), x(201, 1, 7), x(278, 1, 7), x(355, 1, 7), x(409, 1, 7), x(432, 1, 7), x(449, 1, 7)\}} (\{\text{Faux2}(
\end{aligned}$$

True, x(449, 1, 7), y(10, 1), x(432, 1, 7), x(409, 1, 7), x(355, 1, 7),  
 x(278, 1, 7), x(201, 1, 7), x(124, 1, 7), x(47, 1, 7), 75), Faux2(True, y(11, 1),  
 y(10, 1), y(8, 1), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 553}) v  
{Faux3A3(False, x(449, 1, 7), x(1, 1), x(432, 1, 7), x(409, 1, 7), x(355, 1, 7),  
x(278, 1, 7), x(201, 1, 7), x(124, 1, 7), x(47, 1, 7), 76), Faux3A3(False,  
y(11, 1), y(7), y(8, 1), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 554)}) &  
 $\forall_{\{x(33, 1, 15), x(110, 1, 15), x(187, 1, 15), x(264, 1, 15), x(341, 1, 15), x(405, 1, 15), x(429, 1, 15)\}} \{ \{ \text{Faux4}(\text{True},$   
x(429, 1, 15), y(8, 1), x(405, 1, 15), x(341, 1, 15), x(264, 1, 15),  
x(187, 1, 15), x(110, 1, 15), x(33, 1, 15), 45), Faux4(True, y(11, 1),  
y(8, 1), y(10, 2), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 558) \} v

{Faux5A1(False, x(429, 1, 15), x(1, 1), x(405, 1, 15), x(341, 1, 15),  
x(264, 1, 15), x(187, 1, 15), x(110, 1, 15), x(33, 1, 15), 46), Faux5A1(False,  
y(11, 1), y(7), y(10, 2), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 559)}) &

$\forall_{\{x(24, 1, 9), x(101, 1, 9), x(178, 1, 9), x(255, 1, 9), x(332, 1, 9)\}} \{ \{ \text{P}(\text{True}, y(11, 1), x(332, 1, 9),$   
x(255, 1, 9), x(178, 1, 9), x(101, 1, 9), x(24, 1, 9), 27),

$\text{P}(\text{True}, y(11, 1), y(8, 3), y(11, 1), y(9, 1), y(11, 1), y(7), 562) \} v$

{FauxR(False, y(11, 1), x(332, 1, 9), x(255, 1, 9),  
x(178, 1, 9), x(101, 1, 9), x(24, 1, 9), y(6), 28),

FauxR(False, y(11, 1), y(8, 3), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 563)}) &

$\forall_{\{x(30, 1, 22), x(107, 1, 22), x(184, 1, 22), x(261, 1, 22), x(338, 1, 22), x(402, 1, 22), x(426, 1, 22), x(445, 1, 22)\}} \{ \{ \text{Faux1A1}($

True, x(445, 1, 22), x(426, 1, 22), x(402, 1, 22), x(338, 1, 22), x(261, 1, 22),  
x(184, 1, 22), x(107, 1, 22), x(1, 1), x(30, 1, 22), 39), Faux1A1(True,  
y(8, 3), y(10, 2), y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 564) \} v

{Faux2(False, y(8, 1), x(426, 1, 22), x(402, 1, 22), x(338, 1, 22), x(261, 1, 22),  
x(184, 1, 22), x(107, 1, 22), x(1, 1), x(30, 1, 22), 40), Faux2(False, y(8, 1),  
y(10, 2), y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 565)}) &

$\forall_{\{x(48, 1, 7), x(125, 1, 7), x(202, 1, 7), x(279, 1, 7), x(356, 1, 7), x(410, 1, 7), x(433, 1, 7), x(450, 1, 7)\}} \{ \{ \text{Faux3A3}($

True, x(450, 1, 7), x(433, 1, 7), x(1, 1), x(410, 1, 7), x(356, 1, 7),  
x(279, 1, 7), x(202, 1, 7), x(125, 1, 7), x(48, 1, 7), 77), Faux3A3(True,  
y(8, 1), y(11, 1), y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 566) \} v

{Faux2(False, x(450, 1, 7), x(433, 1, 7), y(10, 1), x(410, 1, 7), x(356, 1, 7),  
x(279, 1, 7), x(202, 1, 7), x(125, 1, 7), x(48, 1, 7), 78), Faux2(False, y(8, 1),  
y(11, 1), y(10, 1), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 567)}) &

$\forall_{\{x(13, 1, 13), x(90, 1, 13), x(167, 1, 13), x(244, 1, 13), x(321, 1, 13), x(397, 1, 13), x(422, 1, 13), x(443, 1, 13)\}} \{ \{ \text{Faux2}($

True, x(443, 1, 13), y(11, 1), x(422, 1, 13), x(397, 1, 13), x(321, 1, 13),  
x(244, 1, 13), x(167, 1, 13), x(90, 1, 13), x(13, 1, 13), 5), Faux2(True, y(8, 1),  
y(11, 1), y(10, 1), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 567) \} v

{Faux3A2(False, x(443, 1, 13), x(1, 1), x(422, 1, 13), x(397, 1, 13), x(321, 1, 13),  
x(244, 1, 13), x(167, 1, 13), x(90, 1, 13), x(13, 1, 13), 6), Faux3A2(False,  
y(8, 1), y(7), y(10, 1), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 568)}) &

$\forall_{\{x(49, 1, 7), x(126, 1, 7), x(203, 1, 7), x(280, 1, 7), x(357, 1, 7), x(411, 1, 7), x(434, 1, 7)\}} \{ \{ \text{Faux4}(\text{True},$   
x(434, 1, 7), y(10, 1), x(411, 1, 7), x(357, 1, 7), x(280, 1, 7),

$$\begin{aligned}
& \times(203, 1, 7), \times(126, 1, 7), \times(49, 1, 7), 79), \text{Faux4}(\text{True}, y(8, 1), \\
& y(10, 1), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 572) \} \vee \\
& \{\text{Faux5A3}(\text{False}, x(434, 1, 7), x(1, 1), x(411, 1, 7), x(357, 1, 7), \\
& x(280, 1, 7), x(203, 1, 7), x(126, 1, 7), x(49, 1, 7), 80), \text{Faux5A3}(\text{False}, \\
& y(8, 1), y(7), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 573) \} \wedge \\
& \forall_{\{x(23, 1, 11), x(100, 1, 11), x(177, 1, 11), x(254, 1, 11), x(331, 1, 11)\}} (\{P(\text{True}, y(8, 1), x(331, 1, 11), \\
& x(254, 1, 11), x(177, 1, 11), x(100, 1, 11), x(23, 1, 11), 25), \\
& P(\text{True}, y(8, 1), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), 576) \} \vee \\
& \{P1(\text{False}, y(11, 1), x(331, 1, 11), x(254, 1, 11), \\
& x(177, 1, 11), x(100, 1, 11), x(23, 1, 11), 26), \\
& P1(\text{False}, y(11, 1), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), 577) \}) \wedge \\
& \forall_{\{x(25, 1, 11), x(102, 1, 11), x(179, 1, 11), x(256, 1, 11), x(333, 1, 11)\}} (\{P1(\text{True}, y(11, 1), x(333, 1, 11), \\
& x(256, 1, 11), x(179, 1, 11), x(102, 1, 11), x(25, 1, 11), 29), \\
& P1(\text{True}, y(11, 1), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), 577) \} \vee \\
& \{\text{FauxR}(\text{False}, y(11, 1), x(333, 1, 11), x(256, 1, 11), \\
& x(179, 1, 11), x(102, 1, 11), x(25, 1, 11), y(5), 30), \\
& \text{FauxR}(\text{False}, y(11, 1), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 578) \}) \wedge \\
& \forall_{\{x(46, 1, 10), x(123, 1, 10), x(200, 1, 10), x(277, 1, 10), x(354, 1, 10), x(408, 1, 10), x(431, 1, 10), x(448, 1, 10)\}} (\{\text{Faux1A3}( \\
& \text{True}, x(448, 1, 10), x(431, 1, 10), x(408, 1, 10), x(354, 1, 10), x(277, 1, 10), \\
& x(200, 1, 10), x(123, 1, 10), x(1, 1), x(46, 1, 10), 73), \text{Faux1A3}(\text{True}, \\
& y(10, 3), y(11, 2), y(7), y(9, 1), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 579) \} \vee \\
& \{\text{Faux2}(\text{False}, y(10, 1), x(431, 1, 10), x(408, 1, 10), x(354, 1, 10), x(277, 1, 10), \\
& x(200, 1, 10), x(123, 1, 10), x(1, 1), x(46, 1, 10), 74), \text{Faux2}(\text{False}, y(10, 1), \\
& y(11, 2), y(7), y(9, 1), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 580) \}) \wedge \\
& \forall_{\{x(14, 1, 13), x(91, 1, 13), x(168, 1, 13), x(245, 1, 13), x(322, 1, 13), x(398, 1, 13), x(423, 1, 13), x(444, 1, 13)\}} (\{\text{Faux3A2}( \\
& \text{True}, x(444, 1, 13), x(423, 1, 13), x(1, 1), x(398, 1, 13), x(322, 1, 13), \\
& x(245, 1, 13), x(168, 1, 13), x(91, 1, 13), x(14, 1, 13), 7), \text{Faux3A2}(\text{True}, \\
& y(10, 1), y(11, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 581) \} \vee \\
& \{\text{Faux2}(\text{False}, x(444, 1, 13), x(423, 1, 13), y(11, 1), x(398, 1, 13), \\
& x(322, 1, 13), x(245, 1, 13), x(168, 1, 13), x(91, 1, 13), x(14, 1, 13), 8), \\
& \text{Faux2}(\text{False}, y(10, 1), y(11, 1), y(11, 1), y(9, 1), \\
& y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 582) \}) \wedge \\
& \forall_{\{x(13, 1, 14), x(90, 1, 14), x(167, 1, 14), x(244, 1, 14), x(321, 1, 14), x(397, 1, 14), x(422, 1, 14), x(443, 1, 14)\}} (\{\text{Faux2}( \\
& \text{True}, x(443, 1, 14), y(11, 1), x(422, 1, 14), x(397, 1, 14), x(321, 1, 14), \\
& x(244, 1, 14), x(167, 1, 14), x(90, 1, 14), x(13, 1, 14), 5), \text{Faux2}(\text{True}, y(10, 1), \\
& y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 582) \} \vee \\
& \{\text{Faux3A2}(\text{False}, x(443, 1, 14), x(1, 1), x(422, 1, 14), x(397, 1, 14), x(321, 1, 14), \\
& x(244, 1, 14), x(167, 1, 14), x(90, 1, 14), x(13, 1, 14), 6), \text{Faux3A2}(\text{False}, \\
& y(10, 1), y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 583) \}) \wedge \\
& \forall_{\{x(15, 1, 13), x(92, 1, 13), x(169, 1, 13), x(246, 1, 13), x(323, 1, 13), x(399, 1, 13), x(424, 1, 13)\}} (\{\text{Faux4}(\text{True}, \\
& x(424, 1, 13), y(11, 1), x(399, 1, 13), x(323, 1, 13), x(246, 1, 13), \\
& x(169, 1, 13), x(92, 1, 13), x(15, 1, 13), 9), \text{Faux4}(\text{True}, y(10, 1),
\end{aligned}$$

$y(11, 1), y(11, 2), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 587\} \vee$   
 $\{Faux5A2(False, x(424, 1, 13), x(1, 1), x(399, 1, 13), x(323, 1, 13),$   
 $x(246, 1, 13), x(169, 1, 13), x(92, 1, 13), x(15, 1, 13), 10), Faux5A2(False,$   
 $y(10, 1), y(7), y(11, 2), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 588)\} \wedge$   
 $\forall_{\{x(58, 1, 6), x(135, 1, 6), x(212, 1, 6), x(289, 1, 6), x(366, 1, 6)\}} (\{P1(True, y(10, 1), x(366, 1, 6),$   
 $x(289, 1, 6), x(212, 1, 6), x(135, 1, 6), x(58, 1, 6), 97),$   
 $P1(True, y(10, 1), y(11, 3), y(11, 1), y(11, 1), y(11, 1), y(7), 591)\} \vee$   
 $\{FauxR(False, y(10, 1), x(366, 1, 6), x(289, 1, 6),$   
 $x(212, 1, 6), x(135, 1, 6), x(58, 1, 6), y(6), 98),$   
 $FauxR(False, y(10, 1), y(11, 3), y(11, 1), y(11, 1), y(11, 1), y(7), y(6), 592)\} \wedge$   
 $\forall_{\{x(12, 1, 16), x(89, 1, 16), x(166, 1, 16), x(243, 1, 16), x(320, 1, 16), x(396, 1, 16), x(421, 1, 16), x(442, 1, 16)\}} (\{Faux1A2($   
 $True, x(442, 1, 16), x(421, 1, 16), x(396, 1, 16), x(320, 1, 16), x(243, 1, 16),$   
 $x(166, 1, 16), x(89, 1, 16), x(1, 1), x(12, 1, 16), 3), Faux1A2(True, y(11, 3),$   
 $y(11, 2), y(7), y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 593)\} \vee$   
 $\{Faux2(False, y(11, 1), x(421, 1, 16), x(396, 1, 16), x(320, 1, 16),$   
 $x(243, 1, 16), x(166, 1, 16), x(89, 1, 16), x(1, 1), x(12, 1, 16), 4), Faux2(False,$   
 $y(11, 1), y(11, 2), y(7), y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 594)\} \wedge$   
 $\forall_{\{x(14, 1, 14), x(91, 1, 14), x(168, 1, 14), x(245, 1, 14), x(322, 1, 14), x(398, 1, 14), x(423, 1, 14), x(444, 1, 14)\}} (\{Faux3A2($   
 $True, x(444, 1, 14), x(423, 1, 14), x(1, 1), x(398, 1, 14), x(322, 1, 14),$   
 $x(245, 1, 14), x(168, 1, 14), x(91, 1, 14), x(14, 1, 14), 7), Faux3A2(True,$   
 $y(11, 1), y(9, 1), y(7), y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 595)\} \vee$   
 $\{Faux2(False, x(444, 1, 14), x(423, 1, 14), y(11, 1), x(398, 1, 14),$   
 $x(322, 1, 14), x(245, 1, 14), x(168, 1, 14), x(91, 1, 14), x(14, 1, 14), 8),$   
 $Faux2(False, y(11, 1), y(9, 1), y(11, 1), y(11, 1),$   
 $y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 596)\} \wedge$   
 $\forall_{\{x(64, 1, 7), x(141, 1, 7), x(218, 1, 7), x(295, 1, 7), x(372, 1, 7), x(415, 1, 7), x(437, 1, 7), x(452, 1, 7)\}} (\{Faux2($   
 $True, x(452, 1, 7), y(9, 1), x(437, 1, 7), x(415, 1, 7), x(372, 1, 7),$   
 $x(295, 1, 7), x(218, 1, 7), x(141, 1, 7), x(64, 1, 7), 109), Faux2(True, y(11, 1),$   
 $y(9, 1), y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 596)\} \vee$   
 $\{Faux3A4(False, x(452, 1, 7), x(1, 1), x(437, 1, 7), x(415, 1, 7), x(372, 1, 7),$   
 $x(295, 1, 7), x(218, 1, 7), x(141, 1, 7), x(64, 1, 7), 110), Faux3A4(False,$   
 $y(11, 1), y(7), y(11, 1), y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 597)\} \wedge$   
 $\forall_{\{x(15, 1, 14), x(92, 1, 14), x(169, 1, 14), x(246, 1, 14), x(323, 1, 14), x(399, 1, 14), x(424, 1, 14)\}} (\{Faux4(True,$   
 $x(424, 1, 14), y(11, 1), x(399, 1, 14), x(323, 1, 14), x(246, 1, 14),$   
 $x(169, 1, 14), x(92, 1, 14), x(15, 1, 14), 9), Faux4(True, y(11, 1),$   
 $y(11, 1), y(9, 2), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 601)\} \vee$   
 $\{Faux5A2(False, x(424, 1, 14), x(1, 1), x(399, 1, 14), x(323, 1, 14),$   
 $x(246, 1, 14), x(169, 1, 14), x(92, 1, 14), x(15, 1, 14), 10), Faux5A2(False,$   
 $y(11, 1), y(7), y(9, 2), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 602)\} \wedge$   
 $\forall_{\{x(24, 1, 10), x(101, 1, 10), x(178, 1, 10), x(255, 1, 10), x(332, 1, 10)\}} (\{P(True, y(11, 1), x(332, 1, 10),$   
 $x(255, 1, 10), x(178, 1, 10), x(101, 1, 10), x(24, 1, 10), 27),$   
 $P(True, y(11, 1), y(11, 3), y(11, 1), y(11, 1), y(10, 1), y(7), 605)\} \vee$

$\{FauxR(False, y(11, 1), x(332, 1, 10), x(255, 1, 10),$   
 $x(178, 1, 10), x(101, 1, 10), x(24, 1, 10), y(6), 28),$   
 $FauxR(False, y(11, 1), y(11, 3), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 606)\} \wedge$   
 $\forall_{\{x(12, 1, 17), x(89, 1, 17), x(166, 1, 17), x(243, 1, 17), x(320, 1, 17), x(396, 1, 17), x(421, 1, 17), x(442, 1, 17)\}} (\{Faux1A2($   
 $True, x(442, 1, 17), x(421, 1, 17), x(396, 1, 17), x(320, 1, 17), x(243, 1, 17),$   
 $x(166, 1, 17), x(89, 1, 17), x(1, 1), x(12, 1, 17), 3), Faux1A2(True, y(11, 3),$   
 $y(9, 2), y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 607\}) \vee$   
 $\{Faux2(False, y(11, 1), x(421, 1, 17), x(396, 1, 17), x(320, 1, 17),$   
 $x(243, 1, 17), x(166, 1, 17), x(89, 1, 17), x(1, 1), x(12, 1, 17), 4), Faux2(False,$   
 $y(11, 1), y(9, 2), y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 608\}) \wedge$   
 $\forall_{\{x(65, 1, 7), x(142, 1, 7), x(219, 1, 7), x(296, 1, 7), x(373, 1, 7), x(416, 1, 7), x(438, 1, 7), x(453, 1, 7)\}} (\{Faux3A4($   
 $True, x(453, 1, 7), x(438, 1, 7), x(1, 1), x(416, 1, 7), x(373, 1, 7),$   
 $x(296, 1, 7), x(219, 1, 7), x(142, 1, 7), x(65, 1, 7), 111), Faux3A4(True,$   
 $y(11, 1), y(11, 1), y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 609\}) \vee$   
 $\{Faux2(False, x(453, 1, 7), x(438, 1, 7), y(9, 1), x(416, 1, 7), x(373, 1, 7),$   
 $x(296, 1, 7), x(219, 1, 7), x(142, 1, 7), x(65, 1, 7), 112), Faux2(False, y(11, 1),$   
 $y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 610\}) \wedge$   
 $\forall_{\{x(13, 1, 15), x(90, 1, 15), x(167, 1, 15), x(244, 1, 15), x(321, 1, 15), x(397, 1, 15), x(422, 1, 15), x(443, 1, 15)\}} (\{Faux2($   
 $True, x(443, 1, 15), y(11, 1), x(422, 1, 15), x(397, 1, 15), x(321, 1, 15),$   
 $x(244, 1, 15), x(167, 1, 15), x(90, 1, 15), x(13, 1, 15), 5), Faux2(True, y(11, 1),$   
 $y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 610\}) \vee$   
 $\{Faux3A2(False, x(443, 1, 15), x(1, 1), x(422, 1, 15), x(397, 1, 15), x(321, 1, 15),$   
 $x(244, 1, 15), x(167, 1, 15), x(90, 1, 15), x(13, 1, 15), 6), Faux3A2(False,$   
 $y(11, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 611\}) \wedge$   
 $\forall_{\{x(66, 1, 7), x(143, 1, 7), x(220, 1, 7), x(297, 1, 7), x(374, 1, 7), x(417, 1, 7), x(439, 1, 7)\}} (\{Faux4(True,$   
 $x(439, 1, 7), y(9, 1), x(417, 1, 7), x(374, 1, 7), x(297, 1, 7),$   
 $x(220, 1, 7), x(143, 1, 7), x(66, 1, 7), 113), Faux4(True, y(11, 1),$   
 $y(9, 1), y(11, 2), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 615\}) \vee$   
 $\{Faux5A4(False, x(439, 1, 7), x(1, 1), x(417, 1, 7), x(374, 1, 7),$   
 $x(297, 1, 7), x(220, 1, 7), x(143, 1, 7), x(66, 1, 7), 114), Faux5A4(False,$   
 $y(11, 1), y(7), y(11, 2), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 616\}) \wedge$   
 $\forall_{\{x(24, 1, 11), x(101, 1, 11), x(178, 1, 11), x(255, 1, 11), x(332, 1, 11)\}} (\{P(True, y(11, 1), x(332, 1, 11),$   
 $x(255, 1, 11), x(178, 1, 11), x(101, 1, 11), x(24, 1, 11), 27),$   
 $P(True, y(11, 1), y(9, 3), y(11, 1), y(10, 1), y(11, 1), y(7), 619\}) \vee$   
 $\{FauxR(False, y(11, 1), x(332, 1, 11), x(255, 1, 11),$   
 $x(178, 1, 11), x(101, 1, 11), x(24, 1, 11), y(6), 28),$   
 $FauxR(False, y(11, 1), y(9, 3), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 620\}) \wedge$   
 $\forall_{\{x(63, 1, 10), x(140, 1, 10), x(217, 1, 10), x(294, 1, 10), x(371, 1, 10), x(414, 1, 10), x(436, 1, 10), x(451, 1, 10)\}} (\{Faux1A4($   
 $True, x(451, 1, 10), x(436, 1, 10), x(414, 1, 10), x(371, 1, 10), x(294, 1, 10),$   
 $x(217, 1, 10), x(140, 1, 10), x(1, 1), x(63, 1, 10), 107), Faux1A4(True,$   
 $y(9, 3), y(11, 2), y(7), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 621\}) \vee$   
 $\{Faux2(False, y(9, 1), x(436, 1, 10), x(414, 1, 10), x(371, 1, 10), x(294, 1, 10),$

$x(217, 1, 10), x(140, 1, 10), x(1, 1), x(63, 1, 10), 108), \text{Faux2}(\text{False}, y(9, 1),$   
 $y(11, 2), y(7), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 622)\}) \wedge$   
 $\forall_{\{x(14, 1, 15), x(91, 1, 15), x(168, 1, 15), x(245, 1, 15), x(322, 1, 15), x(398, 1, 15), x(423, 1, 15), x(444, 1, 15)\}} (\{\text{Faux3A2}($   
 $\text{True}, x(444, 1, 15), x(423, 1, 15), x(1, 1), x(398, 1, 15), x(322, 1, 15),$   
 $x(245, 1, 15), x(168, 1, 15), x(91, 1, 15), x(14, 1, 15), 7), \text{Faux3A2}(\text{True},$   
 $y(9, 1), y(11, 1), y(7), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 623)\}) \vee$   
 $\{\text{Faux2}(\text{False}, x(444, 1, 15), x(423, 1, 15), y(11, 1), x(398, 1, 15), x(322, 1, 15),$   
 $x(245, 1, 15), x(168, 1, 15), x(91, 1, 15), x(14, 1, 15), 8), \text{Faux2}(\text{False}, y(9, 1),$   
 $y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 624)\}) \wedge$   
 $\forall_{\{x(13, 1, 16), x(90, 1, 16), x(167, 1, 16), x(244, 1, 16), x(321, 1, 16), x(397, 1, 16), x(422, 1, 16), x(443, 1, 16)\}} (\{\text{Faux2}($   
 $\text{True}, x(443, 1, 16), y(11, 1), x(422, 1, 16), x(397, 1, 16), x(321, 1, 16),$   
 $x(244, 1, 16), x(167, 1, 16), x(90, 1, 16), x(13, 1, 16), 5), \text{Faux2}(\text{True}, y(9, 1),$   
 $y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 624)\}) \vee$   
 $\{\text{Faux3A2}(\text{False}, x(443, 1, 16), x(1, 1), x(422, 1, 16), x(397, 1, 16), x(321, 1, 16),$   
 $x(244, 1, 16), x(167, 1, 16), x(90, 1, 16), x(13, 1, 16), 6), \text{Faux3A2}(\text{False},$   
 $y(9, 1), y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 625)\}) \wedge$   
 $\forall_{\{x(15, 1, 15), x(92, 1, 15), x(169, 1, 15), x(246, 1, 15), x(323, 1, 15), x(399, 1, 15), x(424, 1, 15)\}} (\{\text{Faux4}(\text{True},$   
 $x(424, 1, 15), y(11, 1), x(399, 1, 15), x(323, 1, 15), x(246, 1, 15),$   
 $x(169, 1, 15), x(92, 1, 15), x(15, 1, 15), 9), \text{Faux4}(\text{True}, y(9, 1),$   
 $y(11, 1), y(11, 2), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 629)\}) \vee$   
 $\{\text{Faux5A2}(\text{False}, x(424, 1, 15), x(1, 1), x(399, 1, 15), x(323, 1, 15),$   
 $x(246, 1, 15), x(169, 1, 15), x(92, 1, 15), x(15, 1, 15), 10), \text{Faux5A2}(\text{False},$   
 $y(9, 1), y(7), y(11, 2), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 630)\}) \wedge$   
 $\forall_{\{x(74, 1), x(151, 1), x(228, 1), x(305, 1), x(382, 1)\}} (\{\text{P}(\text{True}, y(9, 1), x(382, 1), x(305, 1),$   
 $x(228, 1), x(151, 1), x(74, 1), 129),$   
 $\text{P}(\text{True}, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(11, 1), y(7), 633)\}) \vee$   
 $\{\text{H}(\text{False}, y(9, 1), x(382, 1), x(305, 1), x(228, 1), x(151, 1), x(74, 1), 130),$   
 $\text{H}(\text{False}, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(11, 1), y(7), 634)\}) \wedge$   
 $\forall_{x(1, 2)} \exists_{\{y(8, 2), y(9, 2), y(10, 2), y(11, 2)\}} (\{\text{A}_{\{x(50, 2, 1), x(127, 2, 1), x(204, 2, 1), x(281, 2, 1), x(358, 2, 1), x(412, 2, 1), x(435, 2, 1)\}} (\{$   
 $\text{Faux5A3}(\text{True}, x(435, 2, 1), x(412, 2, 1), x(1, 2),$   
 $x(358, 2, 1), x(281, 2, 1), x(204, 2, 1), x(127, 2, 1), x(50, 2, 1), 81),$   
 $\text{Faux5A3}(\text{True}, y(8, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 106)\}) \vee$   
 $\{\text{Faux4}(\text{False}, x(435, 2, 1), x(412, 2, 1), y(10, 2), x(358, 2, 1),$   
 $x(281, 2, 1), x(204, 2, 1), x(127, 2, 1), x(50, 2, 1), 82),$   
 $\text{Faux4}(\text{False}, y(8, 1), y(7), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 107)\}) \wedge$   
 $\forall_{\{x(45, 2, 1), x(122, 2, 1), x(199, 2, 1), x(276, 2, 1), x(353, 2, 1), x(407, 2, 1)\}} (\{\text{FauxR}(\text{True}, x(407, 2, 1),$   
 $y(10, 2), x(353, 2, 1), x(276, 2, 1), x(199, 2, 1), x(122, 2, 1), x(45, 2, 1), 71),$   
 $\text{FauxR}(\text{True}, y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 110)\}) \vee$   
 $\{\text{Faux1A3}(\text{False}, y(10, 2), x(1, 2), y(7), x(353, 2, 1), x(276, 2, 1),$   
 $x(199, 2, 1), x(407, 2, 1), x(122, 2, 1), x(45, 2, 1), 72), \text{Faux1A3}(\text{False},$   
 $y(10, 2), y(8, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 111)\}) \wedge$   
 $\forall_{\{x(34, 2, 1), x(111, 2, 1), x(188, 2, 1), x(265, 2, 1), x(342, 2, 1), x(406, 2, 1), x(430, 2, 1)\}} (\{\text{Faux5A1}($

```

True, x(430, 2, 1), x(406, 2, 1), x(1, 2), x(342, 2, 1),
x(265, 2, 1), x(188, 2, 1), x(111, 2, 1), x(34, 2, 1), 47),
Faux5A1(True, y(10, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 116} v
{Faux4(False, x(430, 2, 1), x(406, 2, 1), y(8, 2), x(342, 2, 1),
x(265, 2, 1), x(188, 2, 1), x(111, 2, 1), x(34, 2, 1), 48),
Faux4(False, y(10, 1), y(7), y(8, 2), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 117})} v
 $\forall_{\{x(29,2,2), x(106,2,2), x(183,2,2), x(260,2,2), x(337,2,2), x(401,2,2)\}} \{ \text{FauxR}(\text{True}, x(401, 2, 2),$ 
y(8, 2), x(337, 2, 2), x(260, 2, 2), x(183, 2, 2), x(106, 2, 2), x(29, 2, 2), 37),
FauxR(True, y(10, 1), y(8, 2), y(9, 1), y(11, 1), y(8, 1), y(7), y(6), 120} v
{Faux1A1(False, y(8, 2), x(1, 2), y(7), x(337, 2, 2), x(260, 2, 2),
x(183, 2, 2), x(401, 2, 2), x(106, 2, 2), x(29, 2, 2), 38), Faux1A1(False,
y(8, 2), y(8, 1), y(7), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 121})} v
 $\forall_{\{x(16,2,1), x(93,2,1), x(170,2,1), x(247,2,1), x(324,2,1), x(400,2,1), x(425,2,1)\}} \{ \text{Faux5A2}($ 
True, x(425, 2, 1), x(400, 2, 1), x(1, 2), x(324, 2, 1),
x(247, 2, 1), x(170, 2, 1), x(93, 2, 1), x(16, 2, 1), 11),
Faux5A2(True, y(9, 1), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 147} v
{Faux4(False, x(425, 2, 1), x(400, 2, 1), y(11, 2), x(324, 2, 1),
x(247, 2, 1), x(170, 2, 1), x(93, 2, 1), x(16, 2, 1), 12), Faux4(False,
y(9, 1), y(7), y(11, 2), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 148})} v
 $\forall_{\{x(11,2,1), x(88,2,1), x(165,2,1), x(242,2,1), x(319,2,1), x(395,2,1)\}} \{ \text{FauxR}(\text{True}, x(395, 2, 1),$ 
y(11, 2), x(319, 2, 1), x(242, 2, 1), x(165, 2, 1), x(88, 2, 1), x(11, 2, 1), 1),
FauxR(True, y(9, 1), y(11, 2), y(10, 1), y(11, 1), y(8, 1), y(7), y(6), 151} v
{Faux1A2(False, y(11, 2), x(1, 2), y(7), x(319, 2, 1), x(242, 2, 1),
x(165, 2, 1), x(395, 2, 1), x(88, 2, 1), x(11, 2, 1), 2), Faux1A2(False,
y(11, 2), y(8, 1), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 152})} v
 $\forall_{\{x(16,2,2), x(93,2,2), x(170,2,2), x(247,2,2), x(324,2,2), x(400,2,2), x(425,2,2)\}} \{ \text{Faux5A2}(\text{True},$ 
x(425, 2, 2), x(400, 2, 2), x(1, 2), x(324, 2, 2), x(247, 2, 2),
x(170, 2, 2), x(93, 2, 2), x(16, 2, 2), 11), Faux5A2(True, y(10, 1),
y(7), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 178})} v
{Faux4(False, x(425, 2, 2), x(400, 2, 2), y(11, 2), x(324, 2, 2),
x(247, 2, 2), x(170, 2, 2), x(93, 2, 2), x(16, 2, 2), 12), Faux4(False,
y(10, 1), y(7), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 179})} v
 $\forall_{\{x(11,2,2), x(88,2,2), x(165,2,2), x(242,2,2), x(319,2,2), x(395,2,2)\}} \{ \text{FauxR}(\text{True}, x(395, 2, 2),$ 
y(11, 2), x(319, 2, 2), x(242, 2, 2), x(165, 2, 2), x(88, 2, 2), x(11, 2, 2), 1),
FauxR(True, y(10, 1), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 182} v
{Faux1A2(False, y(11, 2), x(1, 2), y(7), x(319, 2, 2), x(242, 2, 2),
x(165, 2, 2), x(395, 2, 2), x(88, 2, 2), x(11, 2, 2), 2), Faux1A2(False,
y(11, 2), y(8, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 183})} v
 $\forall_{\{x(50,2,4), x(127,2,4), x(204,2,4), x(281,2,4), x(358,2,4), x(412,2,4), x(435,2,4)\}} \{ \text{Faux5A3}($ 
True, x(435, 2, 4), x(412, 2, 4), x(1, 2), x(358, 2, 4),
x(281, 2, 4), x(204, 2, 4), x(127, 2, 4), x(50, 2, 4), 81),
Faux5A3(True, y(11, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 292})} v

```

$\{Faux4(\text{False}, x(435, 2, 4), x(412, 2, 4), y(10, 2), x(358, 2, 4),$   
 $x(281, 2, 4), x(204, 2, 4), x(127, 2, 4), x(50, 2, 4), 82),$   
 $Faux4(\text{False}, y(11, 1), y(7), y(10, 2), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 293)\} \wedge$   
 $\forall_{\{x(45, 2, 4), x(122, 2, 4), x(199, 2, 4), x(276, 2, 4), x(353, 2, 4), x(407, 2, 4)\}} (\{FauxR(\text{True}, x(407, 2, 4),$   
 $y(10, 2), x(353, 2, 4), x(276, 2, 4), x(199, 2, 4), x(122, 2, 4), x(45, 2, 4), 71),$   
 $FauxR(\text{True}, y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 297)\} \vee$   
 $\{Faux1A3(\text{False}, y(10, 2), x(1, 2), y(7), x(353, 2, 4), x(276, 2, 4),$   
 $x(199, 2, 4), x(407, 2, 4), x(122, 2, 4), x(45, 2, 4), 72), Faux1A3(\text{False},$   
 $y(10, 2), y(8, 1), y(7), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 298)\} \wedge$   
 $\forall_{\{x(34, 2, 5), x(111, 2, 5), x(188, 2, 5), x(265, 2, 5), x(342, 2, 5), x(406, 2, 5), x(430, 2, 5)\}} (\{Faux5A1($   
 $\text{True}, x(430, 2, 5), x(406, 2, 5), x(1, 2), x(342, 2, 5),$   
 $x(265, 2, 5), x(188, 2, 5), x(111, 2, 5), x(34, 2, 5), 47),$   
 $Faux5A1(\text{True}, y(10, 1), y(7), y(8, 1), y(9, 1), y(8, 1), y(8, 1), y(7), y(2), 303)\} \vee$   
 $\{Faux4(\text{False}, x(430, 2, 5), x(406, 2, 5), y(8, 2), x(342, 2, 5),$   
 $x(265, 2, 5), x(188, 2, 5), x(111, 2, 5), x(34, 2, 5), 48),$   
 $Faux4(\text{False}, y(10, 1), y(7), y(8, 2), y(9, 1), y(8, 1), y(8, 1), y(7), y(2), 304)\} \wedge$   
 $\forall_{\{x(29, 2, 6), x(106, 2, 6), x(183, 2, 6), x(260, 2, 6), x(337, 2, 6), x(401, 2, 6)\}} (\{FauxR(\text{True}, x(401, 2, 6),$   
 $y(8, 2), x(337, 2, 6), x(260, 2, 6), x(183, 2, 6), x(106, 2, 6), x(29, 2, 6), 37),$   
 $FauxR(\text{True}, y(10, 1), y(8, 2), y(9, 1), y(8, 1), y(8, 1), y(7), y(4), 307)\} \vee$   
 $\{Faux1A1(\text{False}, y(8, 2), x(1, 2), y(7), x(337, 2, 6), x(260, 2, 6),$   
 $x(183, 2, 6), x(401, 2, 6), x(106, 2, 6), x(29, 2, 6), 38), Faux1A1(\text{False},$   
 $y(8, 2), y(8, 1), y(7), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(4), 308)\} \wedge$   
 $\forall_{\{x(67, 2, 4), x(144, 2, 4), x(221, 2, 4), x(298, 2, 4), x(375, 2, 4), x(418, 2, 4), x(440, 2, 4)\}} (\{Faux5A4($   
 $\text{True}, x(440, 2, 4), x(418, 2, 4), x(1, 2), x(375, 2, 4),$   
 $x(298, 2, 4), x(221, 2, 4), x(144, 2, 4), x(67, 2, 4), 115),$   
 $Faux5A4(\text{True}, y(8, 1), y(7), y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 323)\} \vee$   
 $\{Faux4(\text{False}, x(440, 2, 4), x(418, 2, 4), y(9, 2), x(375, 2, 4),$   
 $x(298, 2, 4), x(221, 2, 4), x(144, 2, 4), x(67, 2, 4), 116),$   
 $Faux4(\text{False}, y(8, 1), y(7), y(9, 2), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 324)\} \wedge$   
 $\forall_{\{x(62, 2, 4), x(139, 2, 4), x(216, 2, 4), x(293, 2, 4), x(370, 2, 4), x(413, 2, 4)\}} (\{FauxR(\text{True}, x(413, 2, 4),$   
 $y(9, 2), x(370, 2, 4), x(293, 2, 4), x(216, 2, 4), x(139, 2, 4), x(62, 2, 4), 105),$   
 $FauxR(\text{True}, y(8, 1), y(9, 2), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 327)\} \vee$   
 $\{Faux1A4(\text{False}, y(9, 2), x(1, 2), y(7), x(370, 2, 4), x(293, 2, 4),$   
 $x(216, 2, 4), x(413, 2, 4), x(139, 2, 4), x(62, 2, 4), 106), Faux1A4(\text{False},$   
 $y(9, 2), y(8, 1), y(7), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 328)\} \wedge$   
 $\forall_{\{x(34, 2, 7), x(111, 2, 7), x(188, 2, 7), x(265, 2, 7), x(342, 2, 7), x(406, 2, 7), x(430, 2, 7)\}} (\{Faux5A1($   
 $\text{True}, x(430, 2, 7), x(406, 2, 7), x(1, 2), x(342, 2, 7),$   
 $x(265, 2, 7), x(188, 2, 7), x(111, 2, 7), x(34, 2, 7), 47),$   
 $Faux5A1(\text{True}, y(9, 1), y(7), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 333)\} \vee$   
 $\{Faux4(\text{False}, x(430, 2, 7), x(406, 2, 7), y(8, 2), x(342, 2, 7),$   
 $x(265, 2, 7), x(188, 2, 7), x(111, 2, 7), x(34, 2, 7), 48),$   
 $Faux4(\text{False}, y(9, 1), y(7), y(8, 2), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 334)\} \wedge$

$$\begin{aligned}
& \forall_{\{x(29,2,8), x(106,2,8), x(183,2,8), x(260,2,8), x(337,2,8), x(401,2,8)\}} (\{\text{FauxR}(\text{True}, x(401, 2, 8), \\
& \quad y(8, 2), x(337, 2, 8), x(260, 2, 8), x(183, 2, 8), x(106, 2, 8), x(29, 2, 8), 37), \\
& \quad \text{FauxR}(\text{True}, y(9, 1), y(8, 2), y(10, 1), y(8, 1), y(8, 1), y(7), y(3), 337)\}) \vee \\
& \quad \{\text{Faux1A1}(\text{False}, y(8, 2), x(1, 2), y(7), x(337, 2, 8), x(260, 2, 8), \\
& \quad x(183, 2, 8), x(401, 2, 8), x(106, 2, 8), x(29, 2, 8), 38), \text{Faux1A1}(\text{False}, \\
& \quad y(8, 2), y(8, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 338)\}) \wedge \\
& \forall_{\{x(48,2,1), x(125,2,1), x(202,2,1), x(279,2,1), x(356,2,1), x(410,2,1), x(433,2,1), x(450,2,1)\}} (\{\text{Faux3A3}( \\
& \quad \text{True}, x(450, 2, 1), x(433, 2, 1), x(1, 2), x(410, 2, 1), x(356, 2, 1), \\
& \quad x(279, 2, 1), x(202, 2, 1), x(125, 2, 1), x(48, 2, 1), 77), \text{Faux3A3}(\text{True}, \\
& \quad y(8, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 355)\}) \vee \\
& \quad \{\text{Faux2}(\text{False}, x(450, 2, 1), x(433, 2, 1), y(10, 2), x(410, 2, 1), x(356, 2, 1), \\
& \quad x(279, 2, 1), x(202, 2, 1), x(125, 2, 1), x(48, 2, 1), 78), \text{Faux2}(\text{False}, \\
& \quad y(8, 1), y(7), y(10, 2), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 356)\}) \wedge \\
& \forall_{\{x(49,2,1), x(126,2,1), x(203,2,1), x(280,2,1), x(357,2,1), x(411,2,1), x(434,2,1)\}} (\{\text{Faux4}(\text{True}, \\
& \quad x(434, 2, 1), y(10, 2), x(411, 2, 1), x(357, 2, 1), x(280, 2, 1), \\
& \quad x(203, 2, 1), x(126, 2, 1), x(49, 2, 1), 79), \text{Faux4}(\text{True}, y(8, 1), \\
& \quad y(10, 2), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 357)\}) \vee \\
& \quad \{\text{Faux5A3}(\text{False}, x(434, 2, 1), x(1, 2), x(411, 2, 1), x(357, 2, 1), \\
& \quad x(280, 2, 1), x(203, 2, 1), x(126, 2, 1), x(49, 2, 1), 80), \text{Faux5A3}(\text{False}, \\
& \quad y(8, 1), y(8, 1), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 358)\}) \wedge \\
& \forall_{\{x(50,2,5), x(127,2,5), x(204,2,5), x(281,2,5), x(358,2,5), x(412,2,5), x(435,2,5)\}} (\{\text{Faux5A3}(\text{True}, \\
& \quad x(435, 2, 5), x(412, 2, 5), x(1, 2), x(358, 2, 5), x(281, 2, 5), \\
& \quad x(204, 2, 5), x(127, 2, 5), x(50, 2, 5), 81), \text{Faux5A3}(\text{True}, y(8, 1), \\
& \quad y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 358)\}) \vee \\
& \quad \{\text{Faux4}(\text{False}, x(435, 2, 5), x(412, 2, 5), y(10, 2), x(358, 2, 5), \\
& \quad x(281, 2, 5), x(204, 2, 5), x(127, 2, 5), x(50, 2, 5), 82), \text{Faux4}(\text{False}, \\
& \quad y(8, 1), y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 359)\}) \wedge \\
& \forall_{\{x(47,2,1), x(124,2,1), x(201,2,1), x(278,2,1), x(355,2,1), x(409,2,1), x(432,2,1), x(449,2,1)\}} (\{\text{Faux2}( \\
& \quad \text{True}, x(449, 2, 1), y(10, 2), x(432, 2, 1), x(409, 2, 1), x(355, 2, 1), \\
& \quad x(278, 2, 1), x(201, 2, 1), x(124, 2, 1), x(47, 2, 1), 75), \text{Faux2}(\text{True}, \\
& \quad y(8, 1), y(10, 2), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 366)\}) \vee \\
& \quad \{\text{Faux3A3}(\text{False}, x(449, 2, 1), x(1, 2), x(432, 2, 1), x(409, 2, 1), x(355, 2, 1), \\
& \quad x(278, 2, 1), x(201, 2, 1), x(124, 2, 1), x(47, 2, 1), 76), \text{Faux3A3}(\text{False}, \\
& \quad y(8, 1), y(8, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 367)\}) \wedge \\
& \forall_{\{x(34,2,9), x(111,2,9), x(188,2,9), x(265,2,9), x(342,2,9), x(406,2,9), x(430,2,9)\}} (\{\text{Faux5A1}(\text{True}, \\
& \quad x(430, 2, 9), x(406, 2, 9), x(1, 2), x(342, 2, 9), x(265, 2, 9), \\
& \quad x(188, 2, 9), x(111, 2, 9), x(34, 2, 9), 47), \text{Faux5A1}(\text{True}, y(8, 1), \\
& \quad y(10, 1), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 372)\}) \vee \\
& \quad \{\text{Faux4}(\text{False}, x(430, 2, 9), x(406, 2, 9), y(8, 2), x(342, 2, 9), x(265, 2, 9), \\
& \quad x(188, 2, 9), x(111, 2, 9), x(34, 2, 9), 48), \text{Faux4}(\text{False}, y(8, 1), \\
& \quad y(10, 1), y(8, 2), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 373)\}) \wedge \\
& \forall_{\{x(31,2,2), x(108,2,2), x(185,2,2), x(262,2,2), x(339,2,2), x(403,2,2), x(427,2,2), x(446,2,2)\}} (\{\text{Faux2}( 
\end{aligned}$$

True, x(446, 2, 2), y(8, 2), x(427, 2, 2), x(403, 2, 2), x(339, 2, 2),  
 x(262, 2, 2), x(185, 2, 2), x(108, 2, 2), x(31, 2, 2), 41), Faux2(True,  
 y(10, 1), y(8, 2), y(7), y(9, 1), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 380)} v  
 {Faux3A1(False, x(446, 2, 2), x(1, 2), x(427, 2, 2), x(403, 2, 2), x(339, 2, 2),  
 x(262, 2, 2), x(185, 2, 2), x(108, 2, 2), x(31, 2, 2), 42), Faux3A1(False,  
 y(10, 1), y(8, 1), y(7), y(9, 1), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 381)} a  
 $\forall_{\{x(32, 2, 2), x(109, 2, 2), x(186, 2, 2), x(263, 2, 2), x(340, 2, 2), x(404, 2, 2), x(428, 2, 2), x(447, 2, 2)\}} \{$  {Faux3A1(  
 True, x(447, 2, 2), x(428, 2, 2), x(1, 2), x(404, 2, 2), x(340, 2, 2),  
 x(263, 2, 2), x(186, 2, 2), x(109, 2, 2), x(32, 2, 2), 43), Faux3A1(True,  
 y(10, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 383)} v  
 {Faux2(False, x(447, 2, 2), x(428, 2, 2), y(8, 2), x(404, 2, 2), x(340, 2, 2),  
 x(263, 2, 2), x(186, 2, 2), x(109, 2, 2), x(32, 2, 2), 44), Faux2(False,  
 y(10, 1), y(7), y(8, 2), y(9, 1), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 384)} a  
 $\forall_{\{x(33, 2, 2), x(110, 2, 2), x(187, 2, 2), x(264, 2, 2), x(341, 2, 2), x(405, 2, 2), x(429, 2, 2)\}} \{$  {Faux4(True,  
 x(429, 2, 2), y(8, 2), x(405, 2, 2), x(341, 2, 2), x(264, 2, 2),  
 x(187, 2, 2), x(110, 2, 2), x(33, 2, 2), 45), Faux4(True, y(10, 1),  
 y(8, 2), y(9, 1), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 385)} v  
 {Faux5A1(False, x(429, 2, 2), x(1, 2), x(405, 2, 2), x(341, 2, 2),  
 x(264, 2, 2), x(187, 2, 2), x(110, 2, 2), x(33, 2, 2), 46), Faux5A1(False,  
 y(10, 1), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 386)} a  
 $\forall_{\{x(65, 2, 1), x(142, 2, 1), x(219, 2, 1), x(296, 2, 1), x(373, 2, 1), x(416, 2, 1), x(438, 2, 1), x(453, 2, 1)\}} \{$  {Faux3A4(  
 True, x(453, 2, 1), x(438, 2, 1), x(1, 2), x(416, 2, 1), x(373, 2, 1),  
 x(296, 2, 1), x(219, 2, 1), x(142, 2, 1), x(65, 2, 1), 111), Faux3A4(True,  
 y(8, 1), y(7), y(8, 1), y(11, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 397)} v  
 {Faux2(False, x(453, 2, 1), x(438, 2, 1), y(9, 2), x(416, 2, 1), x(373, 2, 1),  
 x(296, 2, 1), x(219, 2, 1), x(142, 2, 1), x(65, 2, 1), 112), Faux2(False,  
 y(8, 1), y(7), y(9, 2), y(11, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 398)} a  
 $\forall_{\{x(66, 2, 1), x(143, 2, 1), x(220, 2, 1), x(297, 2, 1), x(374, 2, 1), x(417, 2, 1), x(439, 2, 1)\}} \{$  {Faux4(True,  
 x(439, 2, 1), y(9, 2), x(417, 2, 1), x(374, 2, 1), x(297, 2, 1),  
 x(220, 2, 1), x(143, 2, 1), x(66, 2, 1), 113), Faux4(True, y(8, 1),  
 y(9, 2), y(11, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 399)} v  
 {Faux5A4(False, x(439, 2, 1), x(1, 2), x(417, 2, 1), x(374, 2, 1),  
 x(297, 2, 1), x(220, 2, 1), x(143, 2, 1), x(66, 2, 1), 114), Faux5A4(False,  
 y(8, 1), y(8, 1), y(11, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 400)} a  
 $\forall_{\{x(16, 2, 9), x(93, 2, 9), x(170, 2, 9), x(247, 2, 9), x(324, 2, 9), x(400, 2, 9), x(425, 2, 9)\}} \{$  {Faux5A2(True,  
 x(425, 2, 9), x(400, 2, 9), x(1, 2), x(324, 2, 9), x(247, 2, 9),  
 x(170, 2, 9), x(93, 2, 9), x(16, 2, 9), 11), Faux5A2(True, y(8, 1),  
 y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 415)} v  
 {Faux4(False, x(425, 2, 9), x(400, 2, 9), y(11, 2), x(324, 2, 9),  
 x(247, 2, 9), x(170, 2, 9), x(93, 2, 9), x(16, 2, 9), 12), Faux4(False,  
 y(8, 1), y(9, 1), y(11, 2), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 416)} a  
 $\forall_{\{x(13, 2, 1), x(90, 2, 1), x(167, 2, 1), x(244, 2, 1), x(321, 2, 1), x(397, 2, 1), x(422, 2, 1), x(443, 2, 1)\}} \{$  {Faux2(

```

True, x(443, 2, 1), y(11, 2), x(422, 2, 1), x(397, 2, 1), x(321, 2, 1),
x(244, 2, 1), x(167, 2, 1), x(90, 2, 1), x(13, 2, 1), 5), Faux2(True, y(9, 1),
y(11, 2), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 423}) v
{Faux3A2(False, x(443, 2, 1), x(1, 2), x(422, 2, 1), x(397, 2, 1), x(321, 2, 1),
x(244, 2, 1), x(167, 2, 1), x(90, 2, 1), x(13, 2, 1), 6), Faux3A2(False,
y(9, 1), y(8, 1), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 424)}) w
V_{x(34, 2, 11), x(111, 2, 11), x(188, 2, 11), x(265, 2, 11), x(342, 2, 11), x(406, 2, 11), x(430, 2, 11)} ({Faux5A1(
True, x(430, 2, 11), x(406, 2, 11), x(1, 2), x(342, 2, 11), x(265, 2, 11),
x(188, 2, 11), x(111, 2, 11), x(34, 2, 11), 47), Faux5A1(True, y(9, 1),
y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 429}) v
{Faux4(False, x(430, 2, 11), x(406, 2, 11), y(8, 2), x(342, 2, 11),
x(265, 2, 11), x(188, 2, 11), x(111, 2, 11), x(34, 2, 11), 48), Faux4(False,
y(9, 1), y(11, 1), y(8, 2), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 430)}) w
V_{x(31, 2, 4), x(108, 2, 4), x(185, 2, 4), x(262, 2, 4), x(339, 2, 4), x(403, 2, 4), x(427, 2, 4), x(446, 2, 4)} ({Faux2(
True, x(446, 2, 4), y(8, 2), x(427, 2, 4), x(403, 2, 4), x(339, 2, 4),
x(262, 2, 4), x(185, 2, 4), x(108, 2, 4), x(31, 2, 4), 41), Faux2(True,
y(11, 1), y(8, 2), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 437}) v
{Faux3A1(False, x(446, 2, 4), x(1, 2), x(427, 2, 4), x(403, 2, 4), x(339, 2, 4),
x(262, 2, 4), x(185, 2, 4), x(108, 2, 4), x(31, 2, 4), 42), Faux3A1(False,
y(11, 1), y(8, 1), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 438)}) w
V_{x(32, 2, 4), x(109, 2, 4), x(186, 2, 4), x(263, 2, 4), x(340, 2, 4), x(404, 2, 4), x(428, 2, 4), x(447, 2, 4)} ({Faux3A1(
True, x(447, 2, 4), x(428, 2, 4), x(1, 2), x(404, 2, 4), x(340, 2, 4),
x(263, 2, 4), x(186, 2, 4), x(109, 2, 4), x(32, 2, 4), 43), Faux3A1(True,
y(11, 1), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 440}) v
{Faux2(False, x(447, 2, 4), x(428, 2, 4), y(8, 2), x(404, 2, 4), x(340, 2, 4),
x(263, 2, 4), x(186, 2, 4), x(109, 2, 4), x(32, 2, 4), 44), Faux2(False,
y(11, 1), y(7), y(8, 2), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 441)}) w
V_{x(33, 2, 4), x(110, 2, 4), x(187, 2, 4), x(264, 2, 4), x(341, 2, 4), x(405, 2, 4), x(429, 2, 4)} ({Faux4(True,
x(429, 2, 4), y(8, 2), x(405, 2, 4), x(341, 2, 4), x(264, 2, 4),
x(187, 2, 4), x(110, 2, 4), x(33, 2, 4), 45), Faux4(True, y(11, 1),
y(8, 2), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 442}) v
{Faux5A1(False, x(429, 2, 4), x(1, 2), x(405, 2, 4), x(341, 2, 4),
x(264, 2, 4), x(187, 2, 4), x(110, 2, 4), x(33, 2, 4), 46), Faux5A1(False,
y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 443)}) w
V_{x(48, 2, 2), x(125, 2, 2), x(202, 2, 2), x(279, 2, 2), x(356, 2, 2), x(410, 2, 2), x(433, 2, 2), x(450, 2, 2)} ({Faux3A3(
True, x(450, 2, 2), x(433, 2, 2), x(1, 2), x(410, 2, 2), x(356, 2, 2),
x(279, 2, 2), x(202, 2, 2), x(125, 2, 2), x(48, 2, 2), 77), Faux3A3(True,
y(8, 1), y(7), y(8, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 454}) v
{Faux2(False, x(450, 2, 2), x(433, 2, 2), y(10, 2), x(410, 2, 2), x(356, 2, 2),
x(279, 2, 2), x(202, 2, 2), x(125, 2, 2), x(48, 2, 2), 78), Faux2(False,
y(8, 1), y(7), y(10, 2), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 455)}) w
V_{x(49, 2, 2), x(126, 2, 2), x(203, 2, 2), x(280, 2, 2), x(357, 2, 2), x(411, 2, 2), x(434, 2, 2)} ({Faux4(True,

```

$x(434, 2, 2), y(10, 2), x(411, 2, 2), x(357, 2, 2), x(280, 2, 2),$   
 $x(203, 2, 2), x(126, 2, 2), x(49, 2, 2), 79), \text{Faux4}(\text{True}, y(8, 1),$   
 $y(10, 2), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 456)\} \vee$   
 $\{\text{Faux5A3}(\text{False}, x(434, 2, 2), x(1, 2), x(411, 2, 2), x(357, 2, 2),$   
 $x(280, 2, 2), x(203, 2, 2), x(126, 2, 2), x(49, 2, 2), 80), \text{Faux5A3}(\text{False},$   
 $y(8, 1), y(8, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 457)\} \wedge$   
 $\forall_{\{x(16, 2, 10), x(93, 2, 10), x(170, 2, 10), x(247, 2, 10), x(324, 2, 10), x(400, 2, 10), x(425, 2, 10)\}} (\{\text{Faux5A2}($   
 $\text{True}, x(425, 2, 10), x(400, 2, 10), x(1, 2), x(324, 2, 10), x(247, 2, 10),$   
 $x(170, 2, 10), x(93, 2, 10), x(16, 2, 10), 11), \text{Faux5A2}(\text{True}, y(8, 1),$   
 $y(10, 1), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 472)\} \vee$   
 $\{\text{Faux4}(\text{False}, x(425, 2, 10), x(400, 2, 10), y(11, 2), x(324, 2, 10),$   
 $x(247, 2, 10), x(170, 2, 10), x(93, 2, 10), x(16, 2, 10), 12), \text{Faux4}(\text{False},$   
 $y(8, 1), y(10, 1), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 473)\} \wedge$   
 $\forall_{\{x(13, 2, 2), x(90, 2, 2), x(167, 2, 2), x(244, 2, 2), x(321, 2, 2), x(397, 2, 2), x(422, 2, 2), x(443, 2, 2)\}} (\{\text{Faux2}($   
 $\text{True}, x(443, 2, 2), y(11, 2), x(422, 2, 2), x(397, 2, 2), x(321, 2, 2),$   
 $x(244, 2, 2), x(167, 2, 2), x(90, 2, 2), x(13, 2, 2), 5), \text{Faux2}(\text{True}, y(10, 1),$   
 $y(11, 2), y(7), y(9, 1), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 480)\} \vee$   
 $\{\text{Faux3A2}(\text{False}, x(443, 2, 2), x(1, 2), x(422, 2, 2), x(397, 2, 2), x(321, 2, 2),$   
 $x(244, 2, 2), x(167, 2, 2), x(90, 2, 2), x(13, 2, 2), 6), \text{Faux3A2}(\text{False},$   
 $y(10, 1), y(8, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 481)\} \wedge$   
 $\forall_{\{x(65, 2, 2), x(142, 2, 2), x(219, 2, 2), x(296, 2, 2), x(373, 2, 2), x(416, 2, 2), x(438, 2, 2), x(453, 2, 2)\}} (\{\text{Faux3A4}($   
 $\text{True}, x(453, 2, 2), x(438, 2, 2), x(1, 2), x(416, 2, 2), x(373, 2, 2),$   
 $x(296, 2, 2), x(219, 2, 2), x(142, 2, 2), x(65, 2, 2), 111), \text{Faux3A4}(\text{True},$   
 $y(11, 1), y(7), y(8, 1), y(11, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 497)\} \vee$   
 $\{\text{Faux2}(\text{False}, x(453, 2, 2), x(438, 2, 2), y(9, 2), x(416, 2, 2), x(373, 2, 2),$   
 $x(296, 2, 2), x(219, 2, 2), x(142, 2, 2), x(65, 2, 2), 112), \text{Faux2}(\text{False},$   
 $y(11, 1), y(7), y(9, 2), y(11, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 498)\} \wedge$   
 $\forall_{\{x(66, 2, 2), x(143, 2, 2), x(220, 2, 2), x(297, 2, 2), x(374, 2, 2), x(417, 2, 2), x(439, 2, 2)\}} (\{\text{Faux4}(\text{True},$   
 $x(439, 2, 2), y(9, 2), x(417, 2, 2), x(374, 2, 2), x(297, 2, 2),$   
 $x(220, 2, 2), x(143, 2, 2), x(66, 2, 2), 113), \text{Faux4}(\text{True}, y(11, 1),$   
 $y(9, 2), y(11, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 499)\} \vee$   
 $\{\text{Faux5A4}(\text{False}, x(439, 2, 2), x(1, 2), x(417, 2, 2), x(374, 2, 2),$   
 $x(297, 2, 2), x(220, 2, 2), x(143, 2, 2), x(66, 2, 2), 114), \text{Faux5A4}(\text{False},$   
 $y(11, 1), y(8, 1), y(11, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 500)\} \wedge$   
 $\forall_{\{x(16, 2, 12), x(93, 2, 12), x(170, 2, 12), x(247, 2, 12), x(324, 2, 12), x(400, 2, 12), x(425, 2, 12)\}} (\{\text{Faux5A2}($   
 $\text{True}, x(425, 2, 12), x(400, 2, 12), x(1, 2), x(324, 2, 12), x(247, 2, 12),$   
 $x(170, 2, 12), x(93, 2, 12), x(16, 2, 12), 11), \text{Faux5A2}(\text{True}, y(9, 1),$   
 $y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 529)\} \vee$   
 $\{\text{Faux4}(\text{False}, x(425, 2, 12), x(400, 2, 12), y(11, 2), x(324, 2, 12),$   
 $x(247, 2, 12), x(170, 2, 12), x(93, 2, 12), x(16, 2, 12), 12), \text{Faux4}(\text{False},$   
 $y(9, 1), y(11, 1), y(11, 2), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 530)\} \wedge$   
 $\forall_{\{x(13, 2, 4), x(90, 2, 4), x(167, 2, 4), x(244, 2, 4), x(321, 2, 4), x(397, 2, 4), x(422, 2, 4), x(443, 2, 4)\}} (\{\text{Faux2}($

True, x(443, 2, 4), y(11, 2), x(422, 2, 4), x(397, 2, 4), x(321, 2, 4),  
 x(244, 2, 4), x(167, 2, 4), x(90, 2, 4), x(13, 2, 4), 5), Faux2(True, y(11, 1),  
 y(11, 2), y(7), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 537})} v  
 {Faux3A2(False, x(443, 2, 4), x(1, 2), x(422, 2, 4), x(397, 2, 4), x(321, 2, 4),  
 x(244, 2, 4), x(167, 2, 4), x(90, 2, 4), x(13, 2, 4), 6), Faux3A2(False,  
 y(11, 1), y(8, 1), y(7), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 538)})}  $\wedge$   
 $\forall_{\{x(48, 2, 3), x(125, 2, 3), x(202, 2, 3), x(279, 2, 3), x(356, 2, 3), x(410, 2, 3), x(433, 2, 3), x(450, 2, 3)\}} \{$  Faux3A3(  
 True, x(450, 2, 3), x(433, 2, 3), x(1, 2), x(410, 2, 3), x(356, 2, 3),  
 x(279, 2, 3), x(202, 2, 3), x(125, 2, 3), x(48, 2, 3), 77), Faux3A3(True,  
 y(11, 1), y(7), y(8, 1), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 554})} v  
 {Faux2(False, x(450, 2, 3), x(433, 2, 3), y(10, 2), x(410, 2, 3), x(356, 2, 3),  
 x(279, 2, 3), x(202, 2, 3), x(125, 2, 3), x(48, 2, 3), 78), Faux2(False,  
 y(11, 1), y(7), y(10, 2), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 555)})}  $\wedge$   
 $\forall_{\{x(49, 2, 3), x(126, 2, 3), x(203, 2, 3), x(280, 2, 3), x(357, 2, 3), x(411, 2, 3), x(434, 2, 3)\}} \{$  Faux4(True,  
 x(434, 2, 3), y(10, 2), x(411, 2, 3), x(357, 2, 3), x(280, 2, 3),  
 x(203, 2, 3), x(126, 2, 3), x(49, 2, 3), 79), Faux4(True, y(11, 1),  
 y(10, 2), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 556})} v  
 {Faux5A3(False, x(434, 2, 3), x(1, 2), x(411, 2, 3), x(357, 2, 3),  
 x(280, 2, 3), x(203, 2, 3), x(126, 2, 3), x(49, 2, 3), 80), Faux5A3(False,  
 y(11, 1), y(8, 1), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 557)})}  $\wedge$   
 $\forall_{x(1, 3)} \exists_{\{y(8, 3), y(11, 3)\}} \left( \forall_{\{x(34, 2, 3), x(111, 2, 3), x(188, 2, 3), x(265, 2, 3), x(342, 2, 3), x(406, 2, 3), x(430, 2, 3)\}} \{ \right.$  Faux5A1(  
 True, x(430, 2, 3), x(406, 2, 3), x(1, 3), x(342, 2, 3),  
 x(265, 2, 3), x(188, 2, 3), x(111, 2, 3), x(34, 2, 3), 47),  
 Faux5A1(True, y(8, 1), y(7), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 126})} v  
 {Faux4(False, x(430, 2, 3), x(406, 2, 3), y(8, 3), x(342, 2, 3),  
 x(265, 2, 3), x(188, 2, 3), x(111, 2, 3), x(34, 2, 3), 48),  
 Faux4(False, y(8, 1), y(7), y(8, 2), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 127})}  $\wedge$   
 $\forall_{\{x(29, 2, 4), x(106, 2, 4), x(183, 2, 4), x(260, 2, 4), x(337, 2, 4), x(401, 2, 4)\}} \{ \right.$  FauxR(True, x(401, 2, 4),  
 y(8, 3), x(337, 2, 4), x(260, 2, 4), x(183, 2, 4), x(106, 2, 4), x(29, 2, 4), 37),  
 FauxR(True, y(11, 1), y(8, 2), y(11, 1), y(8, 1), y(10, 1), y(7), y(5), 131})} v  
 {Faux1A1(False, y(8, 3), x(1, 3), y(7), x(337, 2, 4), x(260, 2, 4), x(183, 2, 4),  
 x(401, 2, 4), x(106, 2, 4), x(29, 2, 4), 38), Faux1A1(False, y(8, 2),  
 y(9, 1), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 132)})}  $\wedge$   
 $\forall_{\{x(34, 2, 5), x(111, 2, 5), x(188, 2, 5), x(265, 2, 5), x(342, 2, 5), x(406, 2, 5), x(430, 2, 5)\}} \{ \right.$  Faux5A1(True,  
 x(430, 2, 5), x(406, 2, 5), x(1, 3), x(342, 2, 5), x(265, 2, 5),  
 x(188, 2, 5), x(111, 2, 5), x(34, 2, 5), 47), Faux5A1(True, y(11, 1),  
 y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 188})} v  
 {Faux4(False, x(430, 2, 5), x(406, 2, 5), y(8, 3), x(342, 2, 5),  
 x(265, 2, 5), x(188, 2, 5), x(111, 2, 5), x(34, 2, 5), 48), Faux4(False,  
 y(11, 1), y(7), y(8, 2), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 189)})}  $\wedge$   
 $\forall_{\{x(29, 2, 6), x(106, 2, 6), x(183, 2, 6), x(260, 2, 6), x(337, 2, 6), x(401, 2, 6)\}} \{ \right.$  FauxR(True, x(401, 2, 6),  
 y(8, 3), x(337, 2, 6), x(260, 2, 6), x(183, 2, 6), x(106, 2, 6), x(29, 2, 6), 37),

$\text{FauxR}(\text{True}, y(11, 1), y(8, 2), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 192) \vee$   
 $\{\text{Faux1A1}(\text{False}, y(8, 3), x(1, 3), y(7), x(337, 2, 6), x(260, 2, 6), x(183, 2, 6),$   
 $x(401, 2, 6), x(106, 2, 6), x(29, 2, 6), 38), \text{Faux1A1}(\text{False}, y(8, 2),$   
 $y(9, 1), y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 193)\} \wedge$   
 $\forall_{\{x(16, 2, 7), x(93, 2, 7), x(170, 2, 7), x(247, 2, 7), x(324, 2, 7), x(400, 2, 7), x(425, 2, 7)\}} (\{\text{Faux5A2}(\text{True},$   
 $x(425, 2, 7), x(400, 2, 7), x(1, 3), x(324, 2, 7), x(247, 2, 7),$   
 $x(170, 2, 7), x(93, 2, 7), x(16, 2, 7), 11), \text{Faux5A2}(\text{True}, y(11, 1),$   
 $y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 249)\} \vee$   
 $\{\text{Faux4}(\text{False}, x(425, 2, 7), x(400, 2, 7), y(11, 3), x(324, 2, 7),$   
 $x(247, 2, 7), x(170, 2, 7), x(93, 2, 7), x(16, 2, 7), 12), \text{Faux4}(\text{False},$   
 $y(11, 1), y(7), y(11, 2), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 250)\} \wedge$   
 $\forall_{\{x(11, 2, 7), x(88, 2, 7), x(165, 2, 7), x(242, 2, 7), x(319, 2, 7), x(395, 2, 7)\}} (\{\text{FauxR}(\text{True}, x(395, 2, 7),$   
 $y(11, 3), x(319, 2, 7), x(242, 2, 7), x(165, 2, 7), x(88, 2, 7), x(11, 2, 7), 1),$   
 $\text{FauxR}(\text{True}, y(8, 1), y(11, 2), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 254)\} \vee$   
 $\{\text{Faux1A2}(\text{False}, y(11, 3), x(1, 3), y(7), x(319, 2, 7), x(242, 2, 7),$   
 $x(165, 2, 7), x(395, 2, 7), x(88, 2, 7), x(11, 2, 7), 2), \text{Faux1A2}(\text{False},$   
 $y(11, 2), y(9, 1), y(7), y(11, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 255)\} \wedge$   
 $\forall_{\{x(34, 2, 7), x(111, 2, 7), x(188, 2, 7), x(265, 2, 7), x(342, 2, 7), x(406, 2, 7), x(430, 2, 7)\}} (\{\text{Faux5A1}($   
 $\text{True}, x(430, 2, 7), x(406, 2, 7), x(1, 3), x(342, 2, 7),$   
 $x(265, 2, 7), x(188, 2, 7), x(111, 2, 7), x(34, 2, 7), 47),$   
 $\text{Faux5A1}(\text{True}, y(8, 1), y(7), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(4), 313)\} \vee$   
 $\{\text{Faux4}(\text{False}, x(430, 2, 7), x(406, 2, 7), y(8, 3), x(342, 2, 7),$   
 $x(265, 2, 7), x(188, 2, 7), x(111, 2, 7), x(34, 2, 7), 48),$   
 $\text{Faux4}(\text{False}, y(8, 1), y(7), y(8, 2), y(8, 1), y(8, 1), y(10, 1), y(7), y(4), 314)\} \wedge$   
 $\forall_{\{x(29, 2, 8), x(106, 2, 8), x(183, 2, 8), x(260, 2, 8), x(337, 2, 8), x(401, 2, 8)\}} (\{\text{FauxR}(\text{True}, x(401, 2, 8),$   
 $y(8, 3), x(337, 2, 8), x(260, 2, 8), x(183, 2, 8), x(106, 2, 8), x(29, 2, 8), 37),$   
 $\text{FauxR}(\text{True}, y(8, 1), y(8, 2), y(8, 1), y(8, 1), y(10, 1), y(7), y(4), 317)\} \vee$   
 $\{\text{Faux1A1}(\text{False}, y(8, 3), x(1, 3), y(7), x(337, 2, 8), x(260, 2, 8),$   
 $x(183, 2, 8), x(401, 2, 8), x(106, 2, 8), x(29, 2, 8), 38), \text{Faux1A1}(\text{False},$   
 $y(8, 2), y(9, 1), y(7), y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 318)\} \wedge$   
 $\forall_{\{x(34, 2, 11), x(111, 2, 11), x(188, 2, 11), x(265, 2, 11), x(342, 2, 11), x(406, 2, 11), x(430, 2, 11)\}} (\{\text{Faux5A1}($   
 $\text{True}, x(430, 2, 11), x(406, 2, 11), x(1, 3), x(342, 2, 11), x(265, 2, 11),$   
 $x(188, 2, 11), x(111, 2, 11), x(34, 2, 11), 47), \text{Faux5A1}(\text{True},$   
 $y(10, 1), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 386)\} \vee$   
 $\{\text{Faux4}(\text{False}, x(430, 2, 11), x(406, 2, 11), y(8, 3), x(342, 2, 11),$   
 $x(265, 2, 11), x(188, 2, 11), x(111, 2, 11), x(34, 2, 11), 48), \text{Faux4}(\text{False},$   
 $y(10, 1), y(8, 1), y(8, 2), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 387)\} \wedge$   
 $\forall_{\{x(31, 2, 4), x(108, 2, 4), x(185, 2, 4), x(262, 2, 4), x(339, 2, 4), x(403, 2, 4), x(427, 2, 4), x(446, 2, 4)\}} (\{\text{Faux2}($   
 $\text{True}, x(446, 2, 4), y(8, 3), x(427, 2, 4), x(403, 2, 4), x(339, 2, 4),$   
 $x(262, 2, 4), x(185, 2, 4), x(108, 2, 4), x(31, 2, 4), 41), \text{Faux2}(\text{True},$   
 $y(8, 1), y(8, 2), y(7), y(11, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 394)\} \vee$   
 $\{\text{Faux3A1}(\text{False}, x(446, 2, 4), x(1, 3), x(427, 2, 4), x(403, 2, 4), x(339, 2, 4),$

$$\begin{aligned}
& \times(262, 2, 4), \times(185, 2, 4), \times(108, 2, 4), \times(31, 2, 4), 42), \text{Faux3A1(False}, \\
& \text{y}(8, 1), \text{y}(9, 1), \text{y}(7), \text{y}(11, 1), \text{y}(8, 1), \text{y}(8, 1), \text{y}(10, 1), \text{y}(7), \text{y}(6), 395)\} \wedge \\
\forall_{\{x(14,2,2),x(91,2,2),x(168,2,2),x(245,2,2),x(322,2,2),x(398,2,2),x(423,2,2),x(444,2,2)\}} & (\{\text{Faux3A2} \\
& \text{True}, \times(444, 2, 2), \times(423, 2, 2), \times(1, 3), \times(398, 2, 2), \times(322, 2, 2), \\
& \times(245, 2, 2), \times(168, 2, 2), \times(91, 2, 2), \times(14, 2, 2), 7), \text{Faux3A2(True}, \\
& \text{y}(8, 1), \text{y}(7), \text{y}(9, 1), \text{y}(8, 1), \text{y}(8, 1), \text{y}(10, 1), \text{y}(11, 1), \text{y}(7), \text{y}(5), 412\}) \vee \\
\{\text{Faux2} & (\text{False}, \times(444, 2, 2), \times(423, 2, 2), \text{y}(11, 3), \times(398, 2, 2), \times(322, 2, 2), \\
& \times(245, 2, 2), \times(168, 2, 2), \times(91, 2, 2), \times(14, 2, 2), 8), \text{Faux2}(\text{False}, \text{y}(8, 1), \\
& \text{y}(7), \text{y}(11, 2), \text{y}(8, 1), \text{y}(8, 1), \text{y}(10, 1), \text{y}(11, 1), \text{y}(7), \text{y}(5), 413)\}) \wedge \\
\forall_{\{x(15,2,2),x(92,2,2),x(169,2,2),x(246,2,2),x(323,2,2),x(399,2,2),x(424,2,2)\}} & (\{\text{Faux4}(\text{True}, \\
& \times(424, 2, 2), \text{y}(11, 3), \times(399, 2, 2), \times(323, 2, 2), \times(246, 2, 2), \\
& \times(169, 2, 2), \times(92, 2, 2), \times(15, 2, 2), 9), \text{Faux4}(\text{True}, \text{y}(8, 1), \\
& \text{y}(11, 2), \text{y}(8, 1), \text{y}(8, 1), \text{y}(10, 1), \text{y}(11, 1), \text{y}(7), \text{y}(5), 414\}) \vee \\
\{\text{Faux5A2} & (\text{False}, \times(424, 2, 2), \times(1, 3), \times(399, 2, 2), \times(323, 2, 2), \\
& \times(246, 2, 2), \times(169, 2, 2), \times(92, 2, 2), \times(15, 2, 2), 10), \text{Faux5A2}(\text{False}, \\
& \text{y}(8, 1), \text{y}(9, 1), \text{y}(8, 1), \text{y}(8, 1), \text{y}(10, 1), \text{y}(11, 1), \text{y}(7), \text{y}(5), 415)\}) \wedge \\
\forall_{\{x(34,2,14),x(111,2,14),x(188,2,14),x(265,2,14),x(342,2,14),x(406,2,14),x(430,2,14)\}} & (\{\text{Faux5A1} \\
& \text{True}, \times(430, 2, 14), \times(406, 2, 14), \times(1, 3), \times(342, 2, 14), \times(265, 2, 14), \\
& \times(188, 2, 14), \times(111, 2, 14), \times(34, 2, 14), 47), \text{Faux5A1}(\text{True}, \text{y}(10, 1), \\
& \text{y}(11, 1), \text{y}(9, 1), \text{y}(11, 1), \text{y}(11, 1), \text{y}(8, 1), \text{y}(7), \text{y}(5), 486\}) \vee \\
\{\text{Faux4} & (\text{False}, \times(430, 2, 14), \times(406, 2, 14), \text{y}(8, 3), \times(342, 2, 14), \\
& \times(265, 2, 14), \times(188, 2, 14), \times(111, 2, 14), \times(34, 2, 14), 48), \text{Faux4}(\text{False}, \\
& \text{y}(10, 1), \text{y}(11, 1), \text{y}(8, 2), \text{y}(11, 1), \text{y}(11, 1), \text{y}(8, 1), \text{y}(7), \text{y}(5), 487\}) \wedge \\
\forall_{\{x(31,2,7),x(108,2,7),x(185,2,7),x(262,2,7),x(339,2,7),x(403,2,7),x(427,2,7),x(446,2,7)\}} & (\{\text{Faux2} \\
& \text{True}, \times(446, 2, 7), \text{y}(8, 3), \times(427, 2, 7), \times(403, 2, 7), \times(339, 2, 7), \\
& \times(262, 2, 7), \times(185, 2, 7), \times(108, 2, 7), \times(31, 2, 7), 41), \text{Faux2}(\text{True}, \\
& \text{y}(11, 1), \text{y}(8, 2), \text{y}(7), \text{y}(11, 1), \text{y}(11, 1), \text{y}(8, 1), \text{y}(10, 1), \text{y}(7), \text{y}(6), 494\}) \vee \\
\{\text{Faux3A1} & (\text{False}, \times(446, 2, 7), \times(1, 3), \times(427, 2, 7), \times(403, 2, 7), \times(339, 2, 7), \\
& \times(262, 2, 7), \times(185, 2, 7), \times(108, 2, 7), \times(31, 2, 7), 42), \text{Faux3A1}(\text{False}, \\
& \text{y}(11, 1), \text{y}(9, 1), \text{y}(7), \text{y}(11, 1), \text{y}(11, 1), \text{y}(8, 1), \text{y}(10, 1), \text{y}(7), \text{y}(6), 495\}) \wedge \\
\forall_{\{x(14,2,4),x(91,2,4),x(168,2,4),x(245,2,4),x(322,2,4),x(398,2,4),x(423,2,4),x(444,2,4)\}} & (\{\text{Faux3A2} \\
& \text{True}, \times(444, 2, 4), \times(423, 2, 4), \times(1, 3), \times(398, 2, 4), \times(322, 2, 4), \\
& \times(245, 2, 4), \times(168, 2, 4), \times(91, 2, 4), \times(14, 2, 4), 7), \text{Faux3A2}(\text{True}, \\
& \text{y}(8, 1), \text{y}(7), \text{y}(9, 1), \text{y}(11, 1), \text{y}(8, 1), \text{y}(10, 1), \text{y}(11, 1), \text{y}(7), \text{y}(6), 511\}) \vee \\
\{\text{Faux2} & (\text{False}, \times(444, 2, 4), \times(423, 2, 4), \text{y}(11, 3), \times(398, 2, 4), \times(322, 2, 4), \\
& \times(245, 2, 4), \times(168, 2, 4), \times(91, 2, 4), \times(14, 2, 4), 8), \text{Faux2}(\text{False}, \text{y}(8, 1), \\
& \text{y}(7), \text{y}(11, 2), \text{y}(11, 1), \text{y}(8, 1), \text{y}(10, 1), \text{y}(11, 1), \text{y}(7), \text{y}(6), 512\}) \wedge \\
\forall_{\{x(15,2,4),x(92,2,4),x(169,2,4),x(246,2,4),x(323,2,4),x(399,2,4),x(424,2,4)\}} & (\{\text{Faux4}(\text{True}, \\
& \times(424, 2, 4), \text{y}(11, 3), \times(399, 2, 4), \times(323, 2, 4), \times(246, 2, 4), \\
& \times(169, 2, 4), \times(92, 2, 4), \times(15, 2, 4), 9), \text{Faux4}(\text{True}, \text{y}(8, 1), \\
& \text{y}(11, 2), \text{y}(11, 1), \text{y}(8, 1), \text{y}(10, 1), \text{y}(11, 1), \text{y}(7), \text{y}(6), 513\}) \vee \\
\{\text{Faux5A2} & (\text{False}, \times(424, 2, 4), \times(1, 3), \times(399, 2, 4), \times(323, 2, 4),
\end{aligned}$$

$x(246, 2, 4), x(169, 2, 4), x(92, 2, 4), x(15, 2, 4), 10), \text{Faux5A2}(\text{False},$   
 $y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 514)\}) \wedge$   
 $\forall_{\{x(16, 2, 15), x(93, 2, 15), x(170, 2, 15), x(247, 2, 15), x(324, 2, 15), x(400, 2, 15), x(425, 2, 15)\}} (\{\text{Faux5A2}($   
 $\text{True}, x(425, 2, 15), x(400, 2, 15), x(1, 3), x(324, 2, 15), x(247, 2, 15),$   
 $x(170, 2, 15), x(93, 2, 15), x(16, 2, 15), 11), \text{Faux5A2}(\text{True}, y(10, 1),$   
 $y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 586)\}) \vee$   
 $\{\text{Faux4}(\text{False}, x(425, 2, 15), x(400, 2, 15), y(11, 3), x(324, 2, 15),$   
 $x(247, 2, 15), x(170, 2, 15), x(93, 2, 15), x(16, 2, 15), 12), \text{Faux4}(\text{False},$   
 $y(10, 1), y(11, 1), y(11, 2), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 587)\}) \wedge$   
 $\forall_{\{x(13, 2, 7), x(90, 2, 7), x(167, 2, 7), x(244, 2, 7), x(321, 2, 7), x(397, 2, 7), x(422, 2, 7), x(443, 2, 7)\}} (\{\text{Faux2}($   
 $\text{True}, x(443, 2, 7), y(11, 3), x(422, 2, 7), x(397, 2, 7), x(321, 2, 7),$   
 $x(244, 2, 7), x(167, 2, 7), x(90, 2, 7), x(13, 2, 7), 5), \text{Faux2}(\text{True}, y(11, 1),$   
 $y(11, 2), y(7), y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 594)\}) \vee$   
 $\{\text{Faux3A2}(\text{False}, x(443, 2, 7), x(1, 3), x(422, 2, 7), x(397, 2, 7), x(321, 2, 7),$   
 $x(244, 2, 7), x(167, 2, 7), x(90, 2, 7), x(13, 2, 7), 6), \text{Faux3A2}(\text{False},$   
 $y(11, 1), y(9, 1), y(7), y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 595)\}) \wedge$   
 $\forall_{\{x(14, 2, 8), x(91, 2, 8), x(168, 2, 8), x(245, 2, 8), x(322, 2, 8), x(398, 2, 8), x(423, 2, 8), x(444, 2, 8)\}} (\{\text{Faux3A2}($   
 $\text{True}, x(444, 2, 8), x(423, 2, 8), x(1, 3), x(398, 2, 8), x(322, 2, 8),$   
 $x(245, 2, 8), x(168, 2, 8), x(91, 2, 8), x(14, 2, 8), 7), \text{Faux3A2}(\text{True}, y(11, 1),$   
 $y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 611)\}) \vee$   
 $\{\text{Faux2}(\text{False}, x(444, 2, 8), x(423, 2, 8), y(11, 3), x(398, 2, 8), x(322, 2, 8),$   
 $x(245, 2, 8), x(168, 2, 8), x(91, 2, 8), x(14, 2, 8), 8), \text{Faux2}(\text{False}, y(11, 1),$   
 $y(7), y(11, 2), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 612)\}) \wedge$   
 $\forall_{\{x(15, 2, 8), x(92, 2, 8), x(169, 2, 8), x(246, 2, 8), x(323, 2, 8), x(399, 2, 8), x(424, 2, 8)\}} (\{\text{Faux4}(\text{True},$   
 $x(424, 2, 8), y(11, 3), x(399, 2, 8), x(323, 2, 8), x(246, 2, 8),$   
 $x(169, 2, 8), x(92, 2, 8), x(15, 2, 8), 9), \text{Faux4}(\text{True}, y(11, 1),$   
 $y(11, 2), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 613)\}) \vee$   
 $\{\text{Faux5A2}(\text{False}, x(424, 2, 8), x(1, 3), x(399, 2, 8), x(323, 2, 8),$   
 $x(246, 2, 8), x(169, 2, 8), x(92, 2, 8), x(15, 2, 8), 10), \text{Faux5A2}(\text{False},$   
 $y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 614)\}) \wedge$   
 $\forall_{x(1, 4)} \exists_{\{y(8, 4), y(11, 4)\}} (\forall_{\{x(35, 4), x(112, 4), x(189, 4), x(266, 4), x(343, 4)\}} (\{\text{FauxS1}(\text{True}, x(343, 4),$   
 $x(1, 4), x(266, 4), x(189, 4), x(112, 4), x(35, 4), y(6), 49),$   
 $\text{FauxS1}(\text{True}, y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(6), 97)\}) \vee$   
 $\{\text{P}(\text{False}, x(343, 4), y(8, 4), x(266, 4), x(189, 4), x(112, 4), x(35, 4), 50),$   
 $\text{P}(\text{False}, y(8, 1), y(8, 2), y(8, 1), y(8, 1), y(9, 1), y(7), 98)\}) \wedge$   
 $\forall_{\{x(29, 2, 3), x(106, 2, 3), x(183, 2, 3), x(260, 2, 3), x(337, 2, 3), x(401, 2, 3)\}} (\{\text{FauxR}(\text{True}, x(401, 2, 3),$   
 $y(8, 4), x(337, 2, 3), x(260, 2, 3), x(183, 2, 3), x(106, 2, 3), x(29, 2, 3), 37),$   
 $\text{FauxR}(\text{True}, y(11, 1), y(8, 2), y(8, 1), y(8, 1), y(9, 1), y(7), y(5), 100)\}) \vee$   
 $\{\text{Faux1A1}(\text{False}, y(8, 4), x(1, 4), y(7), x(337, 2, 3), x(260, 2, 3),$   
 $x(183, 2, 3), x(401, 2, 3), x(106, 2, 3), x(29, 2, 3), 38), \text{Faux1A1}(\text{False},$   
 $y(8, 2), y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 101)\}) \wedge$   
 $\forall_{\{x(34, 2, 5), x(111, 2, 5), x(188, 2, 5), x(265, 2, 5), x(342, 2, 5), x(406, 2, 5), x(430, 2, 5)\}} (\{\text{Faux5A1}(\text{True},$

$x(430, 2, 5), x(406, 2, 5), x(1, 4), x(342, 2, 5), x(265, 2, 5),$   
 $x(188, 2, 5), x(111, 2, 5), x(34, 2, 5), 47), \text{Faux5A1}(\text{True}, y(11, 1),$   
 $y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 157\}) \vee$   
 $\{\text{Faux4}(\text{False}, x(430, 2, 5), x(406, 2, 5), y(8, 4), x(342, 2, 5),$   
 $x(265, 2, 5), x(188, 2, 5), x(111, 2, 5), x(34, 2, 5), 48),$   
 $\text{Faux4}(\text{False}, y(11, 1), y(7), y(8, 2), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 158)\}) \wedge$   
 $\forall_{\{x(29, 2, 6), x(106, 2, 6), x(183, 2, 6), x(260, 2, 6), x(337, 2, 6), x(401, 2, 6)\}} (\{\text{FauxR}(\text{True}, x(401, 2, 6),$   
 $y(8, 4), x(337, 2, 6), x(260, 2, 6), x(183, 2, 6), x(106, 2, 6), x(29, 2, 6), 37),$   
 $\text{FauxR}(\text{True}, y(11, 1), y(8, 2), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 161\}) \vee$   
 $\{\text{Faux1A1}(\text{False}, y(8, 4), x(1, 4), y(7), x(337, 2, 6), x(260, 2, 6), x(183, 2, 6),$   
 $x(401, 2, 6), x(106, 2, 6), x(29, 2, 6), 38), \text{Faux1A1}(\text{False}, y(8, 2),$   
 $y(10, 1), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 162\}) \wedge$   
 $\forall_{\{x(16, 2, 6), x(93, 2, 6), x(170, 2, 6), x(247, 2, 6), x(324, 2, 6), x(400, 2, 6), x(425, 2, 6)\}} (\{\text{Faux5A2}(\text{True},$   
 $x(425, 2, 6), x(400, 2, 6), x(1, 4), x(324, 2, 6), x(247, 2, 6),$   
 $x(170, 2, 6), x(93, 2, 6), x(16, 2, 6), 11), \text{Faux5A2}(\text{True}, y(11, 1),$   
 $y(7), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 219\}) \vee$   
 $\{\text{Faux4}(\text{False}, x(425, 2, 6), x(400, 2, 6), y(11, 4), x(324, 2, 6),$   
 $x(247, 2, 6), x(170, 2, 6), x(93, 2, 6), x(16, 2, 6), 12), \text{Faux4}(\text{False},$   
 $y(11, 1), y(7), y(11, 2), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 220\}) \wedge$   
 $\forall_{\{x(11, 2, 6), x(88, 2, 6), x(165, 2, 6), x(242, 2, 6), x(319, 2, 6), x(395, 2, 6)\}} (\{\text{FauxR}(\text{True}, x(395, 2, 6),$   
 $y(11, 4), x(319, 2, 6), x(242, 2, 6), x(165, 2, 6), x(88, 2, 6), x(11, 2, 6), 1),$   
 $\text{FauxR}(\text{True}, y(11, 1), y(11, 2), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 223\}) \vee$   
 $\{\text{Faux1A2}(\text{False}, y(11, 4), x(1, 4), y(7), x(319, 2, 6), x(242, 2, 6),$   
 $x(165, 2, 6), x(395, 2, 6), x(88, 2, 6), x(11, 2, 6), 2), \text{Faux1A2}(\text{False},$   
 $y(11, 2), y(10, 1), y(7), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 224\}) \wedge$   
 $\forall_{\{x(16, 2, 10), x(93, 2, 10), x(170, 2, 10), x(247, 2, 10), x(324, 2, 10), x(400, 2, 10), x(425, 2, 10)\}} (\{\text{Faux5A2}(\text{True},$   
 $x(425, 2, 10), x(400, 2, 10), x(1, 4), x(324, 2, 10),$   
 $x(247, 2, 10), x(170, 2, 10), x(93, 2, 10), x(16, 2, 10), 11),$   
 $\text{Faux5A2}(\text{True}, y(11, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 281\}) \vee$   
 $\{\text{Faux4}(\text{False}, x(425, 2, 10), x(400, 2, 10), y(11, 4), x(324, 2, 10),$   
 $x(247, 2, 10), x(170, 2, 10), x(93, 2, 10), x(16, 2, 10), 12),$   
 $\text{Faux4}(\text{False}, y(11, 1), y(7), y(11, 2), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 282\}) \wedge$   
 $\forall_{\{x(11, 2, 10), x(88, 2, 10), x(165, 2, 10), x(242, 2, 10), x(319, 2, 10), x(395, 2, 10)\}} (\{\text{FauxR}(\text{True}, x(395, 2, 10),$   
 $y(11, 4), x(319, 2, 10), x(242, 2, 10), x(165, 2, 10), x(88, 2, 10), x(11, 2, 10),$   
 $1), \text{FauxR}(\text{True}, y(8, 1), y(11, 2), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 286\}) \vee$   
 $\{\text{Faux1A2}(\text{False}, y(11, 4), x(1, 4), y(7), x(319, 2, 10), x(242, 2, 10),$   
 $x(165, 2, 10), x(395, 2, 10), x(88, 2, 10), x(11, 2, 10), 2), \text{Faux1A2}(\text{False},$   
 $y(11, 2), y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 287\}) \wedge$   
 $\forall_{\{x(34, 2, 10), x(111, 2, 10), x(188, 2, 10), x(265, 2, 10), x(342, 2, 10), x(406, 2, 10), x(430, 2, 10)\}} (\{\text{Faux5A1}(\text{True},$   
 $x(430, 2, 10), x(406, 2, 10), x(1, 4), x(342, 2, 10),$   
 $x(265, 2, 10), x(188, 2, 10), x(111, 2, 10), x(34, 2, 10), 47),$   
 $\text{Faux5A1}(\text{True}, y(8, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 343\}) \vee$

$\{Faux4(False, x(430, 2, 10), x(406, 2, 10), y(8, 4), x(342, 2, 10),$   
 $x(265, 2, 10), x(188, 2, 10), x(111, 2, 10), x(34, 2, 10), 48),$   
 $Faux4(False, y(8, 1), y(7), y(8, 2), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 344)\} \wedge$   
 $\forall_{\{x(31, 2, 3), x(108, 2, 3), x(185, 2, 3), x(262, 2, 3), x(339, 2, 3), x(403, 2, 3), x(427, 2, 3), x(446, 2, 3)\}} (\{Faux2($   
 $True, x(446, 2, 3), y(8, 4), x(427, 2, 3), x(403, 2, 3), x(339, 2, 3),$   
 $x(262, 2, 3), x(185, 2, 3), x(108, 2, 3), x(31, 2, 3), 41), Faux2(True,$   
 $y(8, 1), y(8, 2), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 352)\} \vee$   
 $\{Faux3A1(False, x(446, 2, 3), x(1, 4), x(427, 2, 3), x(403, 2, 3), x(339, 2, 3),$   
 $x(262, 2, 3), x(185, 2, 3), x(108, 2, 3), x(31, 2, 3), 42), Faux3A1(False,$   
 $y(8, 1), y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 353)\} \wedge$   
 $\forall_{\{x(32, 2, 3), x(109, 2, 3), x(186, 2, 3), x(263, 2, 3), x(340, 2, 3), x(404, 2, 3), x(428, 2, 3), x(447, 2, 3)\}} (\{Faux3A1($   
 $True, x(447, 2, 3), x(428, 2, 3), x(1, 4), x(404, 2, 3), x(340, 2, 3),$   
 $x(263, 2, 3), x(186, 2, 3), x(109, 2, 3), x(32, 2, 3), 43), Faux3A1(True,$   
 $y(8, 1), y(7), y(10, 1), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 369)\} \vee$   
 $\{Faux2(False, x(447, 2, 3), x(428, 2, 3), y(8, 4), x(404, 2, 3), x(340, 2, 3),$   
 $x(263, 2, 3), x(186, 2, 3), x(109, 2, 3), x(32, 2, 3), 44), Faux2(False,$   
 $y(8, 1), y(7), y(8, 2), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 370)\} \wedge$   
 $\forall_{\{x(33, 2, 3), x(110, 2, 3), x(187, 2, 3), x(264, 2, 3), x(341, 2, 3), x(405, 2, 3), x(429, 2, 3)\}} (\{Faux4(True,$   
 $x(429, 2, 3), y(8, 4), x(405, 2, 3), x(341, 2, 3),$   
 $x(264, 2, 3), x(187, 2, 3), x(110, 2, 3), x(33, 2, 3), 45),$   
 $Faux4(True, y(8, 1), y(8, 2), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 371)\} \vee$   
 $\{Faux5A1(False, x(429, 2, 3), x(1, 4), x(405, 2, 3), x(341, 2, 3),$   
 $x(264, 2, 3), x(187, 2, 3), x(110, 2, 3), x(33, 2, 3), 46), Faux5A1(False,$   
 $y(8, 1), y(10, 1), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 372)\} \wedge$   
 $\forall_{\{x(34, 2, 14), x(111, 2, 14), x(188, 2, 14), x(265, 2, 14), x(342, 2, 14), x(406, 2, 14), x(430, 2, 14)\}} (\{Faux5A1($   
 $True, x(430, 2, 14), x(406, 2, 14), x(1, 4), x(342, 2, 14), x(265, 2, 14),$   
 $x(188, 2, 14), x(111, 2, 14), x(34, 2, 14), 47), Faux5A1(True, y(11, 1),$   
 $y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 443)\} \vee$   
 $\{Faux4(False, x(430, 2, 14), x(406, 2, 14), y(8, 4), x(342, 2, 14),$   
 $x(265, 2, 14), x(188, 2, 14), x(111, 2, 14), x(34, 2, 14), 48), Faux4(False,$   
 $y(11, 1), y(8, 1), y(8, 2), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 444)\} \wedge$   
 $\forall_{\{x(31, 2, 7), x(108, 2, 7), x(185, 2, 7), x(262, 2, 7), x(339, 2, 7), x(403, 2, 7), x(427, 2, 7), x(446, 2, 7)\}} (\{Faux2($   
 $True, x(446, 2, 7), y(8, 4), x(427, 2, 7), x(403, 2, 7), x(339, 2, 7),$   
 $x(262, 2, 7), x(185, 2, 7), x(108, 2, 7), x(31, 2, 7), 41), Faux2(True,$   
 $y(8, 1), y(8, 2), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 451)\} \vee$   
 $\{Faux3A1(False, x(446, 2, 7), x(1, 4), x(427, 2, 7), x(403, 2, 7), x(339, 2, 7),$   
 $x(262, 2, 7), x(185, 2, 7), x(108, 2, 7), x(31, 2, 7), 42), Faux3A1(False,$   
 $y(8, 1), y(10, 1), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 452)\} \wedge$   
 $\forall_{\{x(14, 2, 4), x(91, 2, 4), x(168, 2, 4), x(245, 2, 4), x(322, 2, 4), x(398, 2, 4), x(423, 2, 4), x(444, 2, 4)\}} (\{Faux3A2($   
 $True, x(444, 2, 4), x(423, 2, 4), x(1, 4), x(398, 2, 4), x(322, 2, 4),$   
 $x(245, 2, 4), x(168, 2, 4), x(91, 2, 4), x(14, 2, 4), 7), Faux3A2(True,$   
 $y(8, 1), y(7), y(10, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 469)\} \vee$

$$\begin{aligned}
& \{ \text{Faux2}(\text{False}, x(444, 2, 4), x(423, 2, 4), y(11, 4), x(398, 2, 4), x(322, 2, 4), \\
& \quad x(245, 2, 4), x(168, 2, 4), x(91, 2, 4), x(14, 2, 4), 8), \text{Faux2}(\text{False}, y(8, 1), \\
& \quad y(7), y(11, 2), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 470) \} \wedge \\
& \forall_{\{x(15, 2, 4), x(92, 2, 4), x(169, 2, 4), x(246, 2, 4), x(323, 2, 4), x(399, 2, 4), x(424, 2, 4)\}} (\{ \text{Faux4}(\text{True}, \\
& \quad x(424, 2, 4), y(11, 4), x(399, 2, 4), x(323, 2, 4), x(246, 2, 4), \\
& \quad x(169, 2, 4), x(92, 2, 4), x(15, 2, 4), 9), \text{Faux4}(\text{True}, y(8, 1), \\
& \quad y(11, 2), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 471) \} \vee \\
& \quad \{ \text{Faux5A2}(\text{False}, x(424, 2, 4), x(1, 4), x(399, 2, 4), x(323, 2, 4), \\
& \quad x(246, 2, 4), x(169, 2, 4), x(92, 2, 4), x(15, 2, 4), 10), \text{Faux5A2}(\text{False}, \\
& \quad y(8, 1), y(10, 1), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 472) \}) \wedge \\
& \forall_{\{x(34, 2, 16), x(111, 2, 16), x(188, 2, 16), x(265, 2, 16), x(342, 2, 16), x(406, 2, 16), x(430, 2, 16)\}} (\{ \text{Faux5A1} \\
& \quad (\text{True}, x(430, 2, 16), x(406, 2, 16), x(1, 4), x(342, 2, 16), x(265, 2, 16), \\
& \quad x(188, 2, 16), x(111, 2, 16), x(34, 2, 16), 47), \text{Faux5A1}(\text{True}, y(11, 1), \\
& \quad y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 543) \} \vee \\
& \quad \{ \text{Faux4}(\text{False}, x(430, 2, 16), x(406, 2, 16), y(8, 4), x(342, 2, 16), \\
& \quad x(265, 2, 16), x(188, 2, 16), x(111, 2, 16), x(34, 2, 16), 48), \text{Faux4}(\text{False}, \\
& \quad y(11, 1), y(11, 1), y(8, 2), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 544) \}) \wedge \\
& \forall_{\{x(31, 2, 9), x(108, 2, 9), x(185, 2, 9), x(262, 2, 9), x(339, 2, 9), x(403, 2, 9), x(427, 2, 9), x(446, 2, 9)\}} (\{ \text{Faux2} \\
& \quad (\text{True}, x(446, 2, 9), y(8, 4), x(427, 2, 9), x(403, 2, 9), x(339, 2, 9), \\
& \quad x(262, 2, 9), x(185, 2, 9), x(108, 2, 9), x(31, 2, 9), 41), \text{Faux2}(\text{True}, \\
& \quad y(11, 1), y(8, 2), y(7), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 551) \} \vee \\
& \quad \{ \text{Faux3A1}(\text{False}, x(446, 2, 9), x(1, 4), x(427, 2, 9), x(403, 2, 9), x(339, 2, 9), \\
& \quad x(262, 2, 9), x(185, 2, 9), x(108, 2, 9), x(31, 2, 9), 42), \text{Faux3A1}(\text{False}, \\
& \quad y(11, 1), y(10, 1), y(7), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 552) \}) \wedge \\
& \forall_{\{x(14, 2, 7), x(91, 2, 7), x(168, 2, 7), x(245, 2, 7), x(322, 2, 7), x(398, 2, 7), x(423, 2, 7), x(444, 2, 7)\}} (\{ \text{Faux3A2} \\
& \quad (\text{True}, x(444, 2, 7), x(423, 2, 7), x(1, 4), x(398, 2, 7), x(322, 2, 7), \\
& \quad x(245, 2, 7), x(168, 2, 7), x(91, 2, 7), x(14, 2, 7), 7), \text{Faux3A2}(\text{True}, y(8, 1), \\
& \quad y(7), y(10, 1), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 568) \} \vee \\
& \quad \{ \text{Faux2}(\text{False}, x(444, 2, 7), x(423, 2, 7), y(11, 4), x(398, 2, 7), x(322, 2, 7), \\
& \quad x(245, 2, 7), x(168, 2, 7), x(91, 2, 7), x(14, 2, 7), 8), \text{Faux2}(\text{False}, y(8, 1), \\
& \quad y(7), y(11, 2), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 569) \}) \wedge \\
& \forall_{\{x(15, 2, 7), x(92, 2, 7), x(169, 2, 7), x(246, 2, 7), x(323, 2, 7), x(399, 2, 7), x(424, 2, 7)\}} (\{ \text{Faux4} \\
& \quad (\text{True}, x(424, 2, 7), y(11, 4), x(399, 2, 7), x(323, 2, 7), x(246, 2, 7), \\
& \quad x(169, 2, 7), x(92, 2, 7), x(15, 2, 7), 9), \text{Faux4}(\text{True}, y(8, 1), \\
& \quad y(11, 2), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 570) \} \vee \\
& \quad \{ \text{Faux5A2}(\text{False}, x(424, 2, 7), x(1, 4), x(399, 2, 7), x(323, 2, 7), \\
& \quad x(246, 2, 7), x(169, 2, 7), x(92, 2, 7), x(15, 2, 7), 10), \text{Faux5A2}(\text{False}, \\
& \quad y(8, 1), y(10, 1), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 571) \}) \wedge \\
& \forall_{x(1, 5)} \exists_{\{y(8, 5), y(9, 5), y(10, 5), y(11, 5)\}} (\forall_{\{x(67, 2, 4), x(144, 2, 4), x(221, 2, 4), x(298, 2, 4), x(375, 2, 4), x(418, 2, 4), x(440, 2, 4)\}} (\{ \\
& \quad \text{Faux5A4}(\text{True}, x(440, 2, 4), x(418, 2, 4), x(1, 5), x(375, 2, 4), \\
& \quad x(298, 2, 4), x(221, 2, 4), x(144, 2, 4), x(67, 2, 4), 115), \text{Faux5A4}(\text{True}, \\
& \quad y(8, 1), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 137) \}) \vee
\end{aligned}$$

$\{Faux4(\text{False}, x(440, 2, 4), x(418, 2, 4), y(9, 5), x(375, 2, 4),$   
 $x(298, 2, 4), x(221, 2, 4), x(144, 2, 4), x(67, 2, 4), 116),$   
 $Faux4(\text{False}, y(8, 1), y(7), y(9, 2), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 138)\}) \wedge$   
 $\forall_{\{x(62, 2, 4), x(139, 2, 4), x(216, 2, 4), x(293, 2, 4), x(370, 2, 4), x(413, 2, 4)\}} (\{FauxR(\text{True}, x(413, 2, 4),$   
 $y(9, 5), x(370, 2, 4), x(293, 2, 4), x(216, 2, 4), x(139, 2, 4), x(62, 2, 4), 105),$   
 $FauxR(\text{True}, y(8, 1), y(9, 2), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 141)\} \vee$   
 $\{Faux1A4(\text{False}, y(9, 5), x(1, 5), y(7), x(370, 2, 4), x(293, 2, 4), x(216, 2, 4),$   
 $x(413, 2, 4), x(139, 2, 4), x(62, 2, 4), 106), Faux1A4(\text{False}, y(9, 2),$   
 $y(11, 1), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 142)\}) \wedge$   
 $\forall_{\{x(50, 2, 5), x(127, 2, 5), x(204, 2, 5), x(281, 2, 5), x(358, 2, 5), x(412, 2, 5), x(435, 2, 5)\}} (\{Faux5A3($   
 $\text{True}, x(435, 2, 5), x(412, 2, 5), x(1, 5), x(358, 2, 5),$   
 $x(281, 2, 5), x(204, 2, 5), x(127, 2, 5), x(50, 2, 5), 81),$   
 $Faux5A3(\text{True}, y(8, 1), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 167)\} \vee$   
 $\{Faux4(\text{False}, x(435, 2, 5), x(412, 2, 5), y(10, 5), x(358, 2, 5),$   
 $x(281, 2, 5), x(204, 2, 5), x(127, 2, 5), x(50, 2, 5), 82),$   
 $Faux4(\text{False}, y(8, 1), y(7), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 168)\}) \wedge$   
 $\forall_{\{x(45, 2, 5), x(122, 2, 5), x(199, 2, 5), x(276, 2, 5), x(353, 2, 5), x(407, 2, 5)\}} (\{FauxR(\text{True}, x(407, 2, 5),$   
 $y(10, 5), x(353, 2, 5), x(276, 2, 5), x(199, 2, 5), x(122, 2, 5), x(45, 2, 5), 71),$   
 $FauxR(\text{True}, y(11, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 172)\} \vee$   
 $\{Faux1A3(\text{False}, y(10, 5), x(1, 5), y(7), x(353, 2, 5), x(276, 2, 5),$   
 $x(199, 2, 5), x(407, 2, 5), x(122, 2, 5), x(45, 2, 5), 72), Faux1A3(\text{False},$   
 $y(10, 2), y(11, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 173)\}) \wedge$   
 $\forall_{\{x(67, 2, 5), x(144, 2, 5), x(221, 2, 5), x(298, 2, 5), x(375, 2, 5), x(418, 2, 5), x(440, 2, 5)\}} (\{Faux5A4(\text{True},$   
 $x(440, 2, 5), x(418, 2, 5), x(1, 5), x(375, 2, 5), x(298, 2, 5),$   
 $x(221, 2, 5), x(144, 2, 5), x(67, 2, 5), 115), Faux5A4(\text{True}, y(8, 1),$   
 $y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 198)\} \vee$   
 $\{Faux4(\text{False}, x(440, 2, 5), x(418, 2, 5), y(9, 5), x(375, 2, 5),$   
 $x(298, 2, 5), x(221, 2, 5), x(144, 2, 5), x(67, 2, 5), 116), Faux4(\text{False},$   
 $y(8, 1), y(7), y(9, 2), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 199)\}) \wedge$   
 $\forall_{\{x(62, 2, 5), x(139, 2, 5), x(216, 2, 5), x(293, 2, 5), x(370, 2, 5), x(413, 2, 5)\}} (\{FauxR(\text{True}, x(413, 2, 5),$   
 $y(9, 5), x(370, 2, 5), x(293, 2, 5), x(216, 2, 5), x(139, 2, 5), x(62, 2, 5), 105),$   
 $FauxR(\text{True}, y(11, 1), y(9, 2), y(11, 1), y(10, 1), y(11, 1), y(7), y(5), 203)\} \vee$   
 $\{Faux1A4(\text{False}, y(9, 5), x(1, 5), y(7), x(370, 2, 5), x(293, 2, 5), x(216, 2, 5),$   
 $x(413, 2, 5), x(139, 2, 5), x(62, 2, 5), 106), Faux1A4(\text{False}, y(9, 2),$   
 $y(11, 1), y(7), y(11, 1), y(10, 1), y(11, 1), y(7), y(5), 204)\}) \wedge$   
 $\forall_{\{x(16, 2, 6), x(93, 2, 6), x(170, 2, 6), x(247, 2, 6), x(324, 2, 6), x(400, 2, 6), x(425, 2, 6)\}} (\{Faux5A2(\text{True},$   
 $x(425, 2, 6), x(400, 2, 6), x(1, 5), x(324, 2, 6), x(247, 2, 6),$   
 $x(170, 2, 6), x(93, 2, 6), x(16, 2, 6), 11), Faux5A2(\text{True}, y(9, 1),$   
 $y(7), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 209)\} \vee$   
 $\{Faux4(\text{False}, x(425, 2, 6), x(400, 2, 6), y(11, 5), x(324, 2, 6),$   
 $x(247, 2, 6), x(170, 2, 6), x(93, 2, 6), x(16, 2, 6), 12), Faux4(\text{False},$   
 $y(9, 1), y(7), y(11, 2), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 210)\}) \wedge$

$$\begin{aligned}
& \forall_{\{x(11,2,6), x(88,2,6), x(165,2,6), x(242,2,6), x(319,2,6), x(395,2,6)\}} (\{FauxR(True, x(395, 2, 6), \\
& \quad y(11, 5), x(319, 2, 6), x(242, 2, 6), x(165, 2, 6), x(88, 2, 6), x(11, 2, 6), 1), \\
& \quad FauxR(True, y(9, 1), y(11, 2), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 213)\} \vee \\
& \quad \{Faux1A2(False, y(11, 5), x(1, 5), y(7), x(319, 2, 6), x(242, 2, 6), \\
& \quad x(165, 2, 6), x(395, 2, 6), x(88, 2, 6), x(11, 2, 6), 2), Faux1A2(False, \\
& \quad y(11, 2), y(11, 1), y(7), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 214)\}) \wedge \\
& \forall_{\{x(50,2,6), x(127,2,6), x(204,2,6), x(281,2,6), x(358,2,6), x(412,2,6), x(435,2,6)\}} (\{Faux5A3(True, \\
& \quad x(435, 2, 6), x(412, 2, 6), x(1, 5), x(358, 2, 6), x(281, 2, 6), \\
& \quad x(204, 2, 6), x(127, 2, 6), x(50, 2, 6), 81), Faux5A3(True, y(11, 1), \\
& \quad y(7), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 229)\} \vee \\
& \quad \{Faux4(False, x(435, 2, 6), x(412, 2, 6), y(10, 5), x(358, 2, 6), \\
& \quad x(281, 2, 6), x(204, 2, 6), x(127, 2, 6), x(50, 2, 6), 82), Faux4(False, \\
& \quad y(11, 1), y(7), y(10, 2), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 230)\}) \wedge \\
& \forall_{\{x(45,2,6), x(122,2,6), x(199,2,6), x(276,2,6), x(353,2,6), x(407,2,6)\}} (\{FauxR(True, x(407, 2, 6), \\
& \quad y(10, 5), x(353, 2, 6), x(276, 2, 6), x(199, 2, 6), x(122, 2, 6), x(45, 2, 6), 71), \\
& \quad FauxR(True, y(11, 1), y(10, 2), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 233)\} \vee \\
& \quad \{Faux1A3(False, y(10, 5), x(1, 5), y(7), x(353, 2, 6), x(276, 2, 6), x(199, 2, 6), \\
& \quad x(407, 2, 6), x(122, 2, 6), x(45, 2, 6), 72), Faux1A3(False, y(10, 2), \\
& \quad y(11, 1), y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 234)\}) \wedge \\
& \forall_{\{x(16,2,8), x(93,2,8), x(170,2,8), x(247,2,8), x(324,2,8), x(400,2,8), x(425,2,8)\}} (\{Faux5A2(True, \\
& \quad x(425, 2, 8), x(400, 2, 8), x(1, 5), x(324, 2, 8), x(247, 2, 8), \\
& \quad x(170, 2, 8), x(93, 2, 8), x(16, 2, 8), 11), Faux5A2(True, y(10, 1), \\
& \quad y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 239)\} \vee \\
& \quad \{Faux4(False, x(425, 2, 8), x(400, 2, 8), y(11, 5), x(324, 2, 8), \\
& \quad x(247, 2, 8), x(170, 2, 8), x(93, 2, 8), x(16, 2, 8), 12), Faux4(False, \\
& \quad y(10, 1), y(7), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 240)\}) \wedge \\
& \forall_{\{x(11,2,8), x(88,2,8), x(165,2,8), x(242,2,8), x(319,2,8), x(395,2,8)\}} (\{FauxR(True, x(395, 2, 8), \\
& \quad y(11, 5), x(319, 2, 8), x(242, 2, 8), x(165, 2, 8), x(88, 2, 8), x(11, 2, 8), 1), \\
& \quad FauxR(True, y(10, 1), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(2), 243)\} \vee \\
& \quad \{Faux1A2(False, y(11, 5), x(1, 5), y(7), x(319, 2, 8), x(242, 2, 8), \\
& \quad x(165, 2, 8), x(395, 2, 8), x(88, 2, 8), x(11, 2, 8), 2), Faux1A2(False, \\
& \quad y(11, 2), y(11, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 244)\}) \wedge \\
& \forall_{\{x(67,2,6), x(144,2,6), x(221,2,6), x(298,2,6), x(375,2,6), x(418,2,6), x(440,2,6)\}} (\{Faux5A4(True, \\
& \quad x(440, 2, 6), x(418, 2, 6), x(1, 5), x(375, 2, 6), x(298, 2, 6), \\
& \quad x(221, 2, 6), x(144, 2, 6), x(67, 2, 6), 115), Faux5A4(True, y(11, 1), \\
& \quad y(7), y(11, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 260)\} \vee \\
& \quad \{Faux4(False, x(440, 2, 6), x(418, 2, 6), y(9, 5), x(375, 2, 6), \\
& \quad x(298, 2, 6), x(221, 2, 6), x(144, 2, 6), x(67, 2, 6), 116), Faux4(False, \\
& \quad y(11, 1), y(7), y(9, 2), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 261)\}) \wedge \\
& \forall_{\{x(62,2,6), x(139,2,6), x(216,2,6), x(293,2,6), x(370,2,6), x(413,2,6)\}} (\{FauxR(True, x(413, 2, 6), \\
& \quad y(9, 5), x(370, 2, 6), x(293, 2, 6), x(216, 2, 6), x(139, 2, 6), x(62, 2, 6), 105), \\
& \quad FauxR(True, y(8, 1), y(9, 2), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 265)\} \vee
\end{aligned}$$

$\{Faux1A4(\text{False}, y(9, 5), x(1, 5), y(7), x(370, 2, 6), x(293, 2, 6), x(216, 2, 6),$   
 $x(413, 2, 6), x(139, 2, 6), x(62, 2, 6), 106), Faux1A4(\text{False}, y(9, 2),$   
 $y(11, 1), y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 266)\} \wedge$   
 $\forall_{\{x(16, 2, 10), x(93, 2, 10), x(170, 2, 10), x(247, 2, 10), x(324, 2, 10), x(400, 2, 10), x(425, 2, 10)\}} \{Faux5A2($   
 $\text{True}, x(425, 2, 10), x(400, 2, 10), x(1, 5), x(324, 2, 10),$   
 $x(247, 2, 10), x(170, 2, 10), x(93, 2, 10), x(16, 2, 10), 11),$   
 $Faux5A2(\text{True}, y(9, 1), y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 271)\} \vee$   
 $\{Faux4(\text{False}, x(425, 2, 10), x(400, 2, 10), y(11, 5), x(324, 2, 10),$   
 $x(247, 2, 10), x(170, 2, 10), x(93, 2, 10), x(16, 2, 10), 12),$   
 $Faux4(\text{False}, y(9, 1), y(7), y(11, 2), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 272)\} \wedge$   
 $\forall_{\{x(11, 2, 10), x(88, 2, 10), x(165, 2, 10), x(242, 2, 10), x(319, 2, 10), x(395, 2, 10)\}} \{FauxR(\text{True}, x(395, 2, 10),$   
 $y(11, 5), x(319, 2, 10), x(242, 2, 10), x(165, 2, 10), x(88, 2, 10), x(11, 2, 10),$   
 $1), FauxR(\text{True}, y(9, 1), y(11, 2), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 275)\} \vee$   
 $\{Faux1A2(\text{False}, y(11, 5), x(1, 5), y(7), x(319, 2, 10), x(242, 2, 10),$   
 $x(165, 2, 10), x(395, 2, 10), x(88, 2, 10), x(11, 2, 10), 2), Faux1A2(\text{False},$   
 $y(11, 2), y(11, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 276)\} \wedge$   
 $\forall_{\{x(67, 2, 8), x(144, 2, 8), x(221, 2, 8), x(298, 2, 8), x(375, 2, 8), x(418, 2, 8), x(440, 2, 8)\}} \{Faux5A4(\text{True},$   
 $x(440, 2, 8), x(418, 2, 8), x(1, 5), x(375, 2, 8), x(298, 2, 8),$   
 $x(221, 2, 8), x(144, 2, 8), x(67, 2, 8), 115), Faux5A4(\text{True}, y(8, 1),$   
 $y(8, 1), y(11, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 400)\} \vee$   
 $\{Faux4(\text{False}, x(440, 2, 8), x(418, 2, 8), y(9, 5), x(375, 2, 8), x(298, 2, 8),$   
 $x(221, 2, 8), x(144, 2, 8), x(67, 2, 8), 116), Faux4(\text{False}, y(8, 1),$   
 $y(8, 1), y(9, 2), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 401)\} \wedge$   
 $\forall_{\{x(64, 2, 4), x(141, 2, 4), x(218, 2, 4), x(295, 2, 4), x(372, 2, 4), x(415, 2, 4), x(437, 2, 4), x(452, 2, 4)\}} \{Faux2($   
 $\text{True}, x(452, 2, 4), y(9, 5), x(437, 2, 4), x(415, 2, 4), x(372, 2, 4),$   
 $x(295, 2, 4), x(218, 2, 4), x(141, 2, 4), x(64, 2, 4), 109), Faux2(\text{True},$   
 $y(8, 1), y(9, 2), y(7), y(8, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 409)\} \vee$   
 $\{Faux3A4(\text{False}, x(452, 2, 4), x(1, 5), x(437, 2, 4), x(415, 2, 4), x(372, 2, 4),$   
 $x(295, 2, 4), x(218, 2, 4), x(141, 2, 4), x(64, 2, 4), 110), Faux3A4(\text{False},$   
 $y(8, 1), y(11, 1), y(7), y(8, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 410)\} \wedge$   
 $\forall_{\{x(32, 2, 6), x(109, 2, 6), x(186, 2, 6), x(263, 2, 6), x(340, 2, 6), x(404, 2, 6), x(428, 2, 6), x(447, 2, 6)\}} \{Faux3A1($   
 $\text{True}, x(447, 2, 6), x(428, 2, 6), x(1, 5), x(404, 2, 6), x(340, 2, 6),$   
 $x(263, 2, 6), x(186, 2, 6), x(109, 2, 6), x(32, 2, 6), 43), Faux3A1(\text{True},$   
 $y(9, 1), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 426)\} \vee$   
 $\{Faux2(\text{False}, x(447, 2, 6), x(428, 2, 6), y(8, 5), x(404, 2, 6), x(340, 2, 6),$   
 $x(263, 2, 6), x(186, 2, 6), x(109, 2, 6), x(32, 2, 6), 44), Faux2(\text{False},$   
 $y(9, 1), y(7), y(8, 2), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 427)\} \wedge$   
 $\forall_{\{x(33, 2, 6), x(110, 2, 6), x(187, 2, 6), x(264, 2, 6), x(341, 2, 6), x(405, 2, 6), x(429, 2, 6)\}} \{Faux4(\text{True},$   
 $x(429, 2, 6), y(8, 5), x(405, 2, 6), x(341, 2, 6), x(264, 2, 6),$   
 $x(187, 2, 6), x(110, 2, 6), x(33, 2, 6), 45), Faux4(\text{True}, y(9, 1),$   
 $y(8, 2), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 428)\} \vee$   
 $\{Faux5A1(\text{False}, x(429, 2, 6), x(1, 5), x(405, 2, 6), x(341, 2, 6),$

$$\begin{aligned}
& \quad x(264, 2, 6), x(187, 2, 6), x(110, 2, 6), x(33, 2, 6), 46), \text{Faux5A1(False}, \\
& \quad y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 429)\} \wedge \\
& \forall_{\{x(50, 2, 9), x(127, 2, 9), x(204, 2, 9), x(281, 2, 9), x(358, 2, 9), x(412, 2, 9), x(435, 2, 9)\}} (\{\text{Faux5A3(True}, \\
& \quad x(435, 2, 9), x(412, 2, 9), x(1, 5), x(358, 2, 9), x(281, 2, 9), \\
& \quad x(204, 2, 9), x(127, 2, 9), x(50, 2, 9), 81), \text{Faux5A3(True}, y(8, 1), \\
& \quad y(8, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 457)\} \vee \\
& \quad \{\text{Faux4(False}, x(435, 2, 9), x(412, 2, 9), y(10, 5), x(358, 2, 9), \\
& \quad x(281, 2, 9), x(204, 2, 9), x(127, 2, 9), x(50, 2, 9), 82), \text{Faux4(False}, \\
& \quad y(8, 1), y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 458)\}) \wedge \\
& \forall_{\{x(47, 2, 5), x(124, 2, 5), x(201, 2, 5), x(278, 2, 5), x(355, 2, 5), x(409, 2, 5), x(432, 2, 5), x(449, 2, 5)\}} (\{\text{Faux2(True}, \\
& \quad x(449, 2, 5), y(10, 5), x(432, 2, 5), x(409, 2, 5), x(355, 2, 5), \\
& \quad x(278, 2, 5), x(201, 2, 5), x(124, 2, 5), x(47, 2, 5), 75), \text{Faux2(True}, \\
& \quad y(8, 1), y(10, 2), y(7), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 466)\} \vee \\
& \quad \{\text{Faux3A3(False}, x(449, 2, 5), x(1, 5), x(432, 2, 5), x(409, 2, 5), x(355, 2, 5), \\
& \quad x(278, 2, 5), x(201, 2, 5), x(124, 2, 5), x(47, 2, 5), 76), \text{Faux3A3(False}, \\
& \quad y(8, 1), y(11, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 467)\}) \wedge \\
& \forall_{\{x(32, 2, 8), x(109, 2, 8), x(186, 2, 8), x(263, 2, 8), x(340, 2, 8), x(404, 2, 8), x(428, 2, 8), x(447, 2, 8)\}} (\{\text{Faux3A1(True}, \\
& \quad x(447, 2, 8), x(428, 2, 8), x(1, 5), x(404, 2, 8), x(340, 2, 8), \\
& \quad x(263, 2, 8), x(186, 2, 8), x(109, 2, 8), x(32, 2, 8), 43), \text{Faux3A1(True}, \\
& \quad y(10, 1), y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 483)\} \vee \\
& \quad \{\text{Faux2(False}, x(447, 2, 8), x(428, 2, 8), y(8, 5), x(404, 2, 8), x(340, 2, 8), \\
& \quad x(263, 2, 8), x(186, 2, 8), x(109, 2, 8), x(32, 2, 8), 44), \text{Faux2(False}, \\
& \quad y(10, 1), y(7), y(8, 2), y(9, 1), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 484)\}) \wedge \\
& \forall_{\{x(33, 2, 8), x(110, 2, 8), x(187, 2, 8), x(264, 2, 8), x(341, 2, 8), x(405, 2, 8), x(429, 2, 8)\}} (\{\text{Faux4(True}, \\
& \quad x(429, 2, 8), y(8, 5), x(405, 2, 8), x(341, 2, 8), x(264, 2, 8), \\
& \quad x(187, 2, 8), x(110, 2, 8), x(33, 2, 8), 45), \text{Faux4(True}, y(10, 1), \\
& \quad y(8, 2), y(9, 1), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 485)\} \vee \\
& \quad \{\text{Faux5A1(False}, x(429, 2, 8), x(1, 5), x(405, 2, 8), x(341, 2, 8), \\
& \quad x(264, 2, 8), x(187, 2, 8), x(110, 2, 8), x(33, 2, 8), 46), \text{Faux5A1(False}, \\
& \quad y(10, 1), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 486)\}) \wedge \\
& \forall_{\{x(67, 2, 9), x(144, 2, 9), x(221, 2, 9), x(298, 2, 9), x(375, 2, 9), x(418, 2, 9), x(440, 2, 9)\}} (\{\text{Faux5A4(True}, \\
& \quad x(440, 2, 9), x(418, 2, 9), x(1, 5), x(375, 2, 9), x(298, 2, 9), \\
& \quad x(221, 2, 9), x(144, 2, 9), x(67, 2, 9), 115), \text{Faux5A4(True}, y(11, 1), \\
& \quad y(8, 1), y(11, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 500)\} \vee \\
& \quad \{\text{Faux4(False}, x(440, 2, 9), x(418, 2, 9), y(9, 5), x(375, 2, 9), x(298, 2, 9), \\
& \quad x(221, 2, 9), x(144, 2, 9), x(67, 2, 9), 116), \text{Faux4(False}, y(11, 1), \\
& \quad y(8, 1), y(9, 2), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 501)\}) \wedge \\
& \forall_{\{x(64, 2, 5), x(141, 2, 5), x(218, 2, 5), x(295, 2, 5), x(372, 2, 5), x(415, 2, 5), x(437, 2, 5), x(452, 2, 5)\}} (\{\text{Faux2(True}, \\
& \quad x(452, 2, 5), y(9, 5), x(437, 2, 5), x(415, 2, 5), x(372, 2, 5), \\
& \quad x(295, 2, 5), x(218, 2, 5), x(141, 2, 5), x(64, 2, 5), 109), \text{Faux2(True}, \\
& \quad y(8, 1), y(9, 2), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 508)\} \vee \\
& \quad \{\text{Faux3A4(False}, x(452, 2, 5), x(1, 5), x(437, 2, 5), x(415, 2, 5), x(372, 2, 5),
\end{aligned}$$

$x(295, 2, 5), x(218, 2, 5), x(141, 2, 5), x(64, 2, 5), 110), \text{Faux3A4}(\text{False},$   
 $y(8, 1), y(11, 1), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 509)\}) \wedge$   
 $\forall_{\{x(16, 2, 14), x(93, 2, 14), x(170, 2, 14), x(247, 2, 14), x(324, 2, 14), x(400, 2, 14), x(425, 2, 14)\}} (\{\text{Faux5A2}($   
 $\text{True}, x(425, 2, 14), x(400, 2, 14), x(1, 5), x(324, 2, 14), x(247, 2, 14),$   
 $x(170, 2, 14), x(93, 2, 14), x(16, 2, 14), 11), \text{Faux5A2}(\text{True}, y(8, 1),$   
 $y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 514)\} \vee$   
 $\{\text{Faux4}(\text{False}, x(425, 2, 14), x(400, 2, 14), y(11, 5), x(324, 2, 14),$   
 $x(247, 2, 14), x(170, 2, 14), x(93, 2, 14), x(16, 2, 14), 12), \text{Faux4}(\text{False},$   
 $y(8, 1), y(9, 1), y(11, 2), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 515)\}) \wedge$   
 $\forall_{\{x(13, 2, 6), x(90, 2, 6), x(167, 2, 6), x(244, 2, 6), x(321, 2, 6), x(397, 2, 6), x(422, 2, 6), x(443, 2, 6)\}} (\{\text{Faux2}($   
 $\text{True}, x(443, 2, 6), y(11, 5), x(422, 2, 6), x(397, 2, 6), x(321, 2, 6),$   
 $x(244, 2, 6), x(167, 2, 6), x(90, 2, 6), x(13, 2, 6), 5), \text{Faux2}(\text{True}, y(9, 1),$   
 $y(11, 2), y(7), y(8, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 523)\} \vee$   
 $\{\text{Faux3A2}(\text{False}, x(443, 2, 6), x(1, 5), x(422, 2, 6), x(397, 2, 6), x(321, 2, 6),$   
 $x(244, 2, 6), x(167, 2, 6), x(90, 2, 6), x(13, 2, 6), 6), \text{Faux3A2}(\text{False},$   
 $y(9, 1), y(11, 1), y(7), y(8, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 524)\}) \wedge$   
 $\forall_{\{x(14, 2, 7), x(91, 2, 7), x(168, 2, 7), x(245, 2, 7), x(322, 2, 7), x(398, 2, 7), x(423, 2, 7), x(444, 2, 7)\}} (\{\text{Faux3A2}($   
 $\text{True}, x(444, 2, 7), x(423, 2, 7), x(1, 5), x(398, 2, 7), x(322, 2, 7),$   
 $x(245, 2, 7), x(168, 2, 7), x(91, 2, 7), x(14, 2, 7), 7), \text{Faux3A2}(\text{True}, y(9, 1),$   
 $y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 526)\} \vee$   
 $\{\text{Faux2}(\text{False}, x(444, 2, 7), x(423, 2, 7), y(11, 5), x(398, 2, 7), x(322, 2, 7),$   
 $x(245, 2, 7), x(168, 2, 7), x(91, 2, 7), x(14, 2, 7), 8), \text{Faux2}(\text{False}, y(9, 1),$   
 $y(7), y(11, 2), y(8, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 527)\}) \wedge$   
 $\forall_{\{x(15, 2, 7), x(92, 2, 7), x(169, 2, 7), x(246, 2, 7), x(323, 2, 7), x(399, 2, 7), x(424, 2, 7)\}} (\{\text{Faux4}(\text{True},$   
 $x(424, 2, 7), y(11, 5), x(399, 2, 7), x(323, 2, 7), x(246, 2, 7),$   
 $x(169, 2, 7), x(92, 2, 7), x(15, 2, 7), 9), \text{Faux4}(\text{True}, y(9, 1),$   
 $y(11, 2), y(8, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 528)\} \vee$   
 $\{\text{Faux5A2}(\text{False}, x(424, 2, 7), x(1, 5), x(399, 2, 7), x(323, 2, 7),$   
 $x(246, 2, 7), x(169, 2, 7), x(92, 2, 7), x(15, 2, 7), 10), \text{Faux5A2}(\text{False},$   
 $y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 529)\}) \wedge$   
 $\forall_{\{x(32, 2, 9), x(109, 2, 9), x(186, 2, 9), x(263, 2, 9), x(340, 2, 9), x(404, 2, 9), x(428, 2, 9), x(447, 2, 9)\}} (\{\text{Faux3A1}($   
 $\text{True}, x(447, 2, 9), x(428, 2, 9), x(1, 5), x(404, 2, 9), x(340, 2, 9),$   
 $x(263, 2, 9), x(186, 2, 9), x(109, 2, 9), x(32, 2, 9), 43), \text{Faux3A1}(\text{True},$   
 $y(11, 1), y(7), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 540)\} \vee$   
 $\{\text{Faux2}(\text{False}, x(447, 2, 9), x(428, 2, 9), y(8, 5), x(404, 2, 9), x(340, 2, 9),$   
 $x(263, 2, 9), x(186, 2, 9), x(109, 2, 9), x(32, 2, 9), 44), \text{Faux2}(\text{False},$   
 $y(11, 1), y(7), y(8, 2), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 541)\}) \wedge$   
 $\forall_{\{x(33, 2, 9), x(110, 2, 9), x(187, 2, 9), x(264, 2, 9), x(341, 2, 9), x(405, 2, 9), x(429, 2, 9)\}} (\{\text{Faux4}(\text{True},$   
 $x(429, 2, 9), y(8, 5), x(405, 2, 9), x(341, 2, 9), x(264, 2, 9),$   
 $x(187, 2, 9), x(110, 2, 9), x(33, 2, 9), 45), \text{Faux4}(\text{True}, y(11, 1),$   
 $y(8, 2), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 542)\} \vee$   
 $\{\text{Faux5A1}(\text{False}, x(429, 2, 9), x(1, 5), x(405, 2, 9), x(341, 2, 9),$

$$\begin{aligned}
& \quad x(264, 2, 9), x(187, 2, 9), x(110, 2, 9), x(33, 2, 9), 46), \text{Faux5A1(False}, \\
& \quad y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 543)\}) \wedge \\
& \forall_{\{x(50, 2, 10), x(127, 2, 10), x(204, 2, 10), x(281, 2, 10), x(358, 2, 10), x(412, 2, 10), x(435, 2, 10)\}} (\{\text{Faux5A3} \\
& \quad \text{True}, x(435, 2, 10), x(412, 2, 10), x(1, 5), x(358, 2, 10), x(281, 2, 10), \\
& \quad x(204, 2, 10), x(127, 2, 10), x(50, 2, 10), 81), \text{Faux5A3(True}, y(11, 1), \\
& \quad y(8, 1), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 557)\}) \vee \\
& \quad \{\text{Faux4(False}, x(435, 2, 10), x(412, 2, 10), y(10, 5), x(358, 2, 10), \\
& \quad x(281, 2, 10), x(204, 2, 10), x(127, 2, 10), x(50, 2, 10), 82), \text{Faux4(False}, \\
& \quad y(11, 1), y(8, 1), y(10, 2), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 558)\}) \wedge \\
& \forall_{\{x(47, 2, 6), x(124, 2, 6), x(201, 2, 6), x(278, 2, 6), x(355, 2, 6), x(409, 2, 6), x(432, 2, 6), x(449, 2, 6)\}} (\{\text{Faux2} \\
& \quad \text{True}, x(449, 2, 6), y(10, 5), x(432, 2, 6), x(409, 2, 6), x(355, 2, 6), \\
& \quad x(278, 2, 6), x(201, 2, 6), x(124, 2, 6), x(47, 2, 6), 75), \text{Faux2(True}, y(8, 1), \\
& \quad y(10, 2), y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 565)\}) \vee \\
& \quad \{\text{Faux3A3(False}, x(449, 2, 6), x(1, 5), x(432, 2, 6), x(409, 2, 6), x(355, 2, 6), \\
& \quad x(278, 2, 6), x(201, 2, 6), x(124, 2, 6), x(47, 2, 6), 76), \text{Faux3A3(False}, \\
& \quad y(8, 1), y(11, 1), y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 566)\}) \wedge \\
& \forall_{\{x(16, 2, 16), x(93, 2, 16), x(170, 2, 16), x(247, 2, 16), x(324, 2, 16), x(400, 2, 16), x(425, 2, 16)\}} (\{\text{Faux5A2} \\
& \quad \text{True}, x(425, 2, 16), x(400, 2, 16), x(1, 5), x(324, 2, 16), x(247, 2, 16), \\
& \quad x(170, 2, 16), x(93, 2, 16), x(16, 2, 16), 11), \text{Faux5A2(True}, y(8, 1), \\
& \quad y(10, 1), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 571)\}) \vee \\
& \quad \{\text{Faux4(False}, x(425, 2, 16), x(400, 2, 16), y(11, 5), x(324, 2, 16), \\
& \quad x(247, 2, 16), x(170, 2, 16), x(93, 2, 16), x(16, 2, 16), 12), \text{Faux4(False}, \\
& \quad y(8, 1), y(10, 1), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 572)\}) \wedge \\
& \forall_{\{x(13, 2, 8), x(90, 2, 8), x(167, 2, 8), x(244, 2, 8), x(321, 2, 8), x(397, 2, 8), x(422, 2, 8), x(443, 2, 8)\}} (\{\text{Faux2} \\
& \quad \text{True}, x(443, 2, 8), y(11, 5), x(422, 2, 8), x(397, 2, 8), x(321, 2, 8), \\
& \quad x(244, 2, 8), x(167, 2, 8), x(90, 2, 8), x(13, 2, 8), 5), \text{Faux2(True}, y(10, 1), \\
& \quad y(11, 2), y(7), y(9, 1), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 580)\}) \vee \\
& \quad \{\text{Faux3A2(False}, x(443, 2, 8), x(1, 5), x(422, 2, 8), x(397, 2, 8), x(321, 2, 8), \\
& \quad x(244, 2, 8), x(167, 2, 8), x(90, 2, 8), x(13, 2, 8), 6), \text{Faux3A2(False}, \\
& \quad y(10, 1), y(11, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 581)\}) \wedge \\
& \forall_{\{x(14, 2, 9), x(91, 2, 9), x(168, 2, 9), x(245, 2, 9), x(322, 2, 9), x(398, 2, 9), x(423, 2, 9), x(444, 2, 9)\}} (\{\text{Faux3A2} \\
& \quad \text{True}, x(444, 2, 9), x(423, 2, 9), x(1, 5), x(398, 2, 9), x(322, 2, 9), \\
& \quad x(245, 2, 9), x(168, 2, 9), x(91, 2, 9), x(14, 2, 9), 7), \text{Faux3A2(True}, y(10, 1), \\
& \quad y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 583)\}) \vee \\
& \quad \{\text{Faux2(False}, x(444, 2, 9), x(423, 2, 9), y(11, 5), x(398, 2, 9), x(322, 2, 9), \\
& \quad x(245, 2, 9), x(168, 2, 9), x(91, 2, 9), x(14, 2, 9), 8), \text{Faux2(False}, y(10, 1), \\
& \quad y(7), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 584)\}) \wedge \\
& \forall_{\{x(15, 2, 9), x(92, 2, 9), x(169, 2, 9), x(246, 2, 9), x(323, 2, 9), x(399, 2, 9), x(424, 2, 9)\}} (\{\text{Faux4}(\text{True}, \\
& \quad x(424, 2, 9), y(11, 5), x(399, 2, 9), x(323, 2, 9), x(246, 2, 9), \\
& \quad x(169, 2, 9), x(92, 2, 9), x(15, 2, 9), 9), \text{Faux4}(\text{True}, y(10, 1), \\
& \quad y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 585)\}) \vee \\
& \quad \{\text{Faux5A2(False}, x(424, 2, 9), x(1, 5), x(399, 2, 9), x(323, 2, 9),
\end{aligned}$$

$x(246, 2, 9), x(169, 2, 9), x(92, 2, 9), x(15, 2, 9), 10), \text{Faux5A2}(\text{False},$   
 $y(10, 1), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 586)\}) \wedge$   
 $\forall_{\{x(65, 2, 6), x(142, 2, 6), x(219, 2, 6), x(296, 2, 6), x(373, 2, 6), x(416, 2, 6), x(438, 2, 6), x(453, 2, 6)\}} (\{\text{Faux3A4}($   
 $\text{True}, x(453, 2, 6), x(438, 2, 6), x(1, 5), x(416, 2, 6), x(373, 2, 6),$   
 $x(296, 2, 6), x(219, 2, 6), x(142, 2, 6), x(65, 2, 6), 111), \text{Faux3A4}(\text{True},$   
 $y(11, 1), y(7), y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 597)\}) \vee$   
 $\{\text{Faux2}(\text{False}, x(453, 2, 6), x(438, 2, 6), y(9, 5), x(416, 2, 6), x(373, 2, 6),$   
 $x(296, 2, 6), x(219, 2, 6), x(142, 2, 6), x(65, 2, 6), 112), \text{Faux2}(\text{False},$   
 $y(11, 1), y(7), y(9, 2), y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 598)\}) \wedge$   
 $\forall_{\{x(66, 2, 6), x(143, 2, 6), x(220, 2, 6), x(297, 2, 6), x(374, 2, 6), x(417, 2, 6), x(439, 2, 6)\}} (\{\text{Faux4}(\text{True},$   
 $x(439, 2, 6), y(9, 5), x(417, 2, 6), x(374, 2, 6), x(297, 2, 6),$   
 $x(220, 2, 6), x(143, 2, 6), x(66, 2, 6), 113), \text{Faux4}(\text{True}, y(11, 1),$   
 $y(9, 2), y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 599)\}) \vee$   
 $\{\text{Faux5A4}(\text{False}, x(439, 2, 6), x(1, 5), x(417, 2, 6), x(374, 2, 6),$   
 $x(297, 2, 6), x(220, 2, 6), x(143, 2, 6), x(66, 2, 6), 114), \text{Faux5A4}(\text{False},$   
 $y(11, 1), y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 600)\}) \wedge$   
 $\forall_{\{x(67, 2, 10), x(144, 2, 10), x(221, 2, 10), x(298, 2, 10), x(375, 2, 10), x(418, 2, 10), x(440, 2, 10)\}} (\{\text{Faux5A4}($   
 $\text{True}, x(440, 2, 10), x(418, 2, 10), x(1, 5), x(375, 2, 10), x(298, 2, 10),$   
 $x(221, 2, 10), x(144, 2, 10), x(67, 2, 10), 115), \text{Faux5A4}(\text{True}, y(11, 1),$   
 $y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 600)\}) \vee$   
 $\{\text{Faux4}(\text{False}, x(440, 2, 10), x(418, 2, 10), y(9, 5), x(375, 2, 10),$   
 $x(298, 2, 10), x(221, 2, 10), x(144, 2, 10), x(67, 2, 10), 116), \text{Faux4}(\text{False},$   
 $y(11, 1), y(11, 1), y(9, 2), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 601)\}) \wedge$   
 $\forall_{\{x(64, 2, 6), x(141, 2, 6), x(218, 2, 6), x(295, 2, 6), x(372, 2, 6), x(415, 2, 6), x(437, 2, 6), x(452, 2, 6)\}} (\{\text{Faux2}($   
 $\text{True}, x(452, 2, 6), y(9, 5), x(437, 2, 6), x(415, 2, 6), x(372, 2, 6),$   
 $x(295, 2, 6), x(218, 2, 6), x(141, 2, 6), x(64, 2, 6), 109), \text{Faux2}(\text{True},$   
 $y(11, 1), y(9, 2), y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 608)\}) \vee$   
 $\{\text{Faux3A4}(\text{False}, x(452, 2, 6), x(1, 5), x(437, 2, 6), x(415, 2, 6), x(372, 2, 6),$   
 $x(295, 2, 6), x(218, 2, 6), x(141, 2, 6), x(64, 2, 6), 110), \text{Faux3A4}(\text{False},$   
 $y(11, 1), y(11, 1), y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 609)\}) \wedge$   
 $\forall_{\{x(16, 2, 18), x(93, 2, 18), x(170, 2, 18), x(247, 2, 18), x(324, 2, 18), x(400, 2, 18), x(425, 2, 18)\}} (\{\text{Faux5A2}($   
 $\text{True}, x(425, 2, 18), x(400, 2, 18), x(1, 5), x(324, 2, 18), x(247, 2, 18),$   
 $x(170, 2, 18), x(93, 2, 18), x(16, 2, 18), 11), \text{Faux5A2}(\text{True}, y(11, 1),$   
 $y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 614)\}) \vee$   
 $\{\text{Faux4}(\text{False}, x(425, 2, 18), x(400, 2, 18), y(11, 5), x(324, 2, 18),$   
 $x(247, 2, 18), x(170, 2, 18), x(93, 2, 18), x(16, 2, 18), 12), \text{Faux4}(\text{False},$   
 $y(11, 1), y(9, 1), y(11, 2), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 615)\}) \wedge$   
 $\forall_{\{x(13, 2, 10), x(90, 2, 10), x(167, 2, 10), x(244, 2, 10), x(321, 2, 10), x(397, 2, 10), x(422, 2, 10), x(443, 2, 10)\}} (\{\text{Faux2}($   
 $\text{True}, x(443, 2, 10), y(11, 5), x(422, 2, 10), x(397, 2, 10), x(321, 2, 10),$   
 $x(244, 2, 10), x(167, 2, 10), x(90, 2, 10), x(13, 2, 10), 5), \text{Faux2}(\text{True},$   
 $y(9, 1), y(11, 2), y(7), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 622)\}) \vee$   
 $\{\text{Faux3A2}(\text{False}, x(443, 2, 10), x(1, 5), x(422, 2, 10), x(397, 2, 10), x(321, 2, 10),$

$$\begin{aligned}
& \times(244, 2, 10), \times(167, 2, 10), \times(90, 2, 10), \times(13, 2, 10), 6), \text{Faux3A2}(\text{False}, \\
& y(9, 1), y(11, 1), y(7), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 623) \} \wedge \\
\forall_{\{x(14, 2, 11), x(91, 2, 11), x(168, 2, 11), x(245, 2, 11), x(322, 2, 11), x(398, 2, 11), x(423, 2, 11), x(444, 2, 11)\}} & (\{\text{Faux3A2}( \\
& \text{True}, x(444, 2, 11), x(423, 2, 11), x(1, 5), x(398, 2, 11), x(322, 2, 11), \\
& x(245, 2, 11), x(168, 2, 11), x(91, 2, 11), x(14, 2, 11), 7), \text{Faux3A2}(\text{True}, \\
& y(9, 1), y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 625) \} \vee \\
& \{\text{Faux2}(\text{False}, x(444, 2, 11), x(423, 2, 11), y(11, 5), x(398, 2, 11), x(322, 2, 11), \\
& x(245, 2, 11), x(168, 2, 11), x(91, 2, 11), x(14, 2, 11), 8), \text{Faux2}(\text{False}, \\
& y(9, 1), y(7), y(11, 2), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 626) \}) \wedge \\
\forall_{\{x(15, 2, 11), x(92, 2, 11), x(169, 2, 11), x(246, 2, 11), x(323, 2, 11), x(399, 2, 11), x(424, 2, 11)\}} & (\{\text{Faux4}(\text{True}, \\
& x(424, 2, 11), y(11, 5), x(399, 2, 11), x(323, 2, 11), x(246, 2, 11), \\
& x(169, 2, 11), x(92, 2, 11), x(15, 2, 11), 9), \text{Faux4}(\text{True}, y(9, 1), \\
& y(11, 2), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 627) \} \vee \\
& \{\text{Faux5A2}(\text{False}, x(424, 2, 11), x(1, 5), x(399, 2, 11), x(323, 2, 11), \\
& x(246, 2, 11), x(169, 2, 11), x(92, 2, 11), x(15, 2, 11), 10), \text{Faux5A2}(\text{False}, \\
& y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 628) \}) \wedge \\
\forall_{\{x(16, 2, 19), x(93, 2, 19), x(170, 2, 19), x(247, 2, 19), x(324, 2, 19), x(400, 2, 19), x(425, 2, 19)\}} & (\{\text{Faux5A2}( \\
& \text{True}, x(425, 2, 19), x(400, 2, 19), x(1, 5), x(324, 2, 19), x(247, 2, 19), \\
& x(170, 2, 19), x(93, 2, 19), x(16, 2, 19), 11), \text{Faux5A2}(\text{True}, y(9, 1), \\
& y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 628) \} \vee \\
& \{\text{Faux4}(\text{False}, x(425, 2, 19), x(400, 2, 19), y(11, 5), x(324, 2, 19), \\
& x(247, 2, 19), x(170, 2, 19), x(93, 2, 19), x(16, 2, 19), 12), \text{Faux4}(\text{False}, \\
& y(9, 1), y(11, 1), y(11, 2), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 629) \}) \wedge \\
\forall_{x(1, 6)} \exists_{\{y(10, 6), y(11, 6)\}} & (\forall_{\{x(50, 6, 1), x(127, 6, 1), x(204, 6, 1), x(281, 6, 1), x(358, 6, 1), x(412, 6, 1), x(435, 6, 1)\}} (\{\text{Faux5A3}( \\
& \text{True}, x(435, 6, 1), x(412, 6, 1), x(1, 6), x(358, 6, 1), \\
& x(281, 6, 1), x(204, 6, 1), x(127, 6, 1), x(50, 6, 1), 81), \\
& \text{Faux5A3}(\text{True}, y(8, 1), y(7), y(8, 2), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 374) \} \vee \\
& \{\text{Faux4}(\text{False}, x(435, 6, 1), x(412, 6, 1), y(10, 6), x(358, 6, 1), \\
& x(281, 6, 1), x(204, 6, 1), x(127, 6, 1), x(50, 6, 1), 82), \\
& \text{Faux4}(\text{False}, y(8, 1), y(7), y(10, 3), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 375) \}) \wedge \\
\forall_{\{x(45, 6, 1), x(122, 6, 1), x(199, 6, 1), x(276, 6, 1), x(353, 6, 1), x(407, 6, 1)\}} & (\{\text{FauxR}(\text{True}, x(407, 6, 1), \\
& y(10, 6), x(353, 6, 1), x(276, 6, 1), x(199, 6, 1), x(122, 6, 1), x(45, 6, 1), 71), \\
& \text{FauxR}(\text{True}, y(8, 1), y(10, 3), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 378) \} \vee \\
& \{\text{Faux1A3}(\text{False}, y(10, 6), x(1, 6), y(7), x(353, 6, 1), x(276, 6, 1), \\
& x(199, 6, 1), x(407, 6, 1), x(122, 6, 1), x(45, 6, 1), 72), \text{Faux1A3}(\text{False}, \\
& y(10, 3), y(8, 2), y(7), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 379) \}) \wedge \\
\forall_{\{x(16, 6, 1), x(93, 6, 1), x(170, 6, 1), x(247, 6, 1), x(324, 6, 1), x(400, 6, 1), x(425, 6, 1)\}} & (\{\text{Faux5A2}( \\
& \text{True}, x(425, 6, 1), x(400, 6, 1), x(1, 6), x(324, 6, 1), \\
& x(247, 6, 1), x(170, 6, 1), x(93, 6, 1), x(16, 6, 1), 11), \\
& \text{Faux5A2}(\text{True}, y(9, 1), y(7), y(8, 2), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 431) \} \vee \\
& \{\text{Faux4}(\text{False}, x(425, 6, 1), x(400, 6, 1), y(11, 6), x(324, 6, 1), \\
& x(247, 6, 1), x(170, 6, 1), x(93, 6, 1), x(16, 6, 1), 12), \text{Faux4}(\text{False}, 
\end{aligned}$$

$$\begin{aligned}
& y(9, 1), y(7), y(11, 3), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 432) \} \wedge \\
& \forall_{\{x(11, 6, 1), x(88, 6, 1), x(165, 6, 1), x(242, 6, 1), x(319, 6, 1), x(395, 6, 1)\}} \{ \text{FauxR}(\text{True}, x(395, 6, 1), \\
& y(11, 6), x(319, 6, 1), x(242, 6, 1), x(165, 6, 1), x(88, 6, 1), x(11, 6, 1), 1), \\
& \text{FauxR}(\text{True}, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(8, 1), y(7), y(6), 435) \} \vee \\
& \{ \text{Faux1A2}(\text{False}, y(11, 6), x(1, 6), y(7), x(319, 6, 1), x(242, 6, 1), \\
& x(165, 6, 1), x(395, 6, 1), x(88, 6, 1), x(11, 6, 1), 2), \text{Faux1A2}(\text{False}, \\
& y(11, 3), y(8, 2), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 436) \} \} \wedge \\
& \forall_{x(1, 7)} \exists_{\{y(8, 7), y(11, 7)\}} (\forall_{\{x(34, 6, 3), x(111, 6, 3), x(188, 6, 3), x(265, 6, 3), x(342, 6, 3), x(406, 6, 3), x(430, 6, 3)\}} \{ \text{Faux5A1}( \\
& \text{True}, x(430, 6, 3), x(406, 6, 3), x(1, 7), x(342, 6, 3), \\
& x(265, 6, 3), x(188, 6, 3), x(111, 6, 3), x(34, 6, 3), 47), \\
& \text{Faux5A1}(\text{True}, y(10, 1), y(7), y(8, 2), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 388) \} \vee \\
& \{ \text{Faux4}(\text{False}, x(430, 6, 3), x(406, 6, 3), y(8, 7), x(342, 6, 3), \\
& x(265, 6, 3), x(188, 6, 3), x(111, 6, 3), x(34, 6, 3), 48), \\
& \text{Faux4}(\text{False}, y(10, 1), y(7), y(8, 3), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 389) \} \} \wedge \\
& \forall_{\{x(29, 6, 4), x(106, 6, 4), x(183, 6, 4), x(260, 6, 4), x(337, 6, 4), x(401, 6, 4)\}} \{ \text{FauxR}(\text{True}, x(401, 6, 4), \\
& y(8, 7), x(337, 6, 4), x(260, 6, 4), x(183, 6, 4), x(106, 6, 4), x(29, 6, 4), 37), \\
& \text{FauxR}(\text{True}, y(10, 1), y(8, 3), y(11, 1), y(8, 1), y(8, 1), y(7), y(6), 392) \} \vee \\
& \{ \text{Faux1A1}(\text{False}, y(8, 7), x(1, 7), y(7), x(337, 6, 4), x(260, 6, 4), \\
& x(183, 6, 4), x(401, 6, 4), x(106, 6, 4), x(29, 6, 4), 38), \text{Faux1A1}(\text{False}, \\
& y(8, 3), y(8, 2), y(7), y(11, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 393) \} \wedge \\
& \forall_{\{x(16, 6, 3), x(93, 6, 3), x(170, 6, 3), x(247, 6, 3), x(324, 6, 3), x(400, 6, 3), x(425, 6, 3)\}} \{ \text{Faux5A2}(\text{True}, \\
& x(425, 6, 3), x(400, 6, 3), x(1, 7), x(324, 6, 3), x(247, 6, 3), \\
& x(170, 6, 3), x(93, 6, 3), x(16, 6, 3), 11), \text{Faux5A2}(\text{True}, y(10, 1), \\
& y(7), y(8, 2), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 488) \} \vee \\
& \{ \text{Faux4}(\text{False}, x(425, 6, 3), x(400, 6, 3), y(11, 7), x(324, 6, 3), \\
& x(247, 6, 3), x(170, 6, 3), x(93, 6, 3), x(16, 6, 3), 12), \text{Faux4}(\text{False}, \\
& y(10, 1), y(7), y(11, 3), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 489) \} \} \wedge \\
& \forall_{\{x(11, 6, 3), x(88, 6, 3), x(165, 6, 3), x(242, 6, 3), x(319, 6, 3), x(395, 6, 3)\}} \{ \text{FauxR}(\text{True}, x(395, 6, 3), \\
& y(11, 7), x(319, 6, 3), x(242, 6, 3), x(165, 6, 3), x(88, 6, 3), x(11, 6, 3), 1), \\
& \text{FauxR}(\text{True}, y(10, 1), y(11, 3), y(11, 1), y(11, 1), y(8, 1), y(7), y(6), 492) \} \vee \\
& \{ \text{Faux1A2}(\text{False}, y(11, 7), x(1, 7), y(7), x(319, 6, 3), x(242, 6, 3), \\
& x(165, 6, 3), x(395, 6, 3), x(88, 6, 3), x(11, 6, 3), 2), \text{Faux1A2}(\text{False}, \\
& y(11, 3), y(8, 2), y(7), y(11, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 493) \} \} \wedge \\
& \forall_{x(1, 8)} \exists_{\{y(8, 8), y(11, 8)\}} (\forall_{\{x(35, 8), x(112, 8), x(189, 8), x(266, 8), x(343, 8)\}} \{ \text{FauxS1}(\text{True}, x(343, 8), \\
& x(1, 8), x(266, 8), x(189, 8), x(112, 8), x(35, 8), y(6), 49), \\
& \text{FauxS1}(\text{True}, y(8, 1), y(8, 2), y(8, 1), y(8, 1), y(9, 1), y(7), y(6), 347) \} \vee \\
& \{ \text{P}(\text{False}, x(343, 8), y(8, 8), x(266, 8), x(189, 8), x(112, 8), x(35, 8), 50), \\
& \text{P}(\text{False}, y(8, 1), y(8, 3), y(8, 1), y(8, 1), y(9, 1), y(7), 348) \} \} \wedge \\
& \forall_{\{x(29, 6, 3), x(106, 6, 3), x(183, 6, 3), x(260, 6, 3), x(337, 6, 3), x(401, 6, 3)\}} \{ \text{FauxR}(\text{True}, x(401, 6, 3), \\
& y(8, 8), x(337, 6, 3), x(260, 6, 3), x(183, 6, 3), x(106, 6, 3), x(29, 6, 3), 37), \\
& \text{FauxR}(\text{True}, y(11, 1), y(8, 3), y(8, 1), y(8, 1), y(9, 1), y(7), y(5), 350) \} \vee \\
& \{ \text{Faux1A1}(\text{False}, y(8, 8), x(1, 8), y(7), x(337, 6, 3), x(260, 6, 3),
\end{aligned}$$

$$\begin{aligned}
& \times(183, 6, 3), \times(401, 6, 3), \times(106, 6, 3), \times(29, 6, 3), 38), \text{Faux1A1(False}, \\
& \text{y}(8, 3), \text{y}(8, 2), \text{y}(7), \text{y}(8, 1), \text{y}(8, 1), \text{y}(9, 1), \text{y}(11, 1), \text{y}(7), \text{y}(5), 351)\}) \wedge \\
\forall_{\{x(34, 6, 6), x(111, 6, 6), x(188, 6, 6), x(265, 6, 6), x(342, 6, 6), x(406, 6, 6), x(430, 6, 6)\}} & (\{\text{Faux5A1}(\text{True}, \\
& x(430, 6, 6), x(406, 6, 6), x(1, 8), x(342, 6, 6), \\
& x(265, 6, 6), x(188, 6, 6), x(111, 6, 6), x(34, 6, 6), 47), \\
& \text{Faux5A1}(\text{True}, \text{y}(11, 1), \text{y}(7), \text{y}(8, 2), \text{y}(11, 1), \text{y}(8, 1), \text{y}(9, 1), \text{y}(7), \text{y}(6), 445)\} \vee \\
& \{\text{Faux4}(\text{False}, x(430, 6, 6), x(406, 6, 6), y(8, 8), x(342, 6, 6), \\
& x(265, 6, 6), x(188, 6, 6), x(111, 6, 6), x(34, 6, 6), 48), \\
& \text{Faux4}(\text{False}, \text{y}(11, 1), \text{y}(7), \text{y}(8, 3), \text{y}(11, 1), \text{y}(8, 1), \text{y}(9, 1), \text{y}(7), \text{y}(6), 446)\}) \wedge \\
\forall_{\{x(29, 6, 7), x(106, 6, 7), x(183, 6, 7), x(260, 6, 7), x(337, 6, 7), x(401, 6, 7)\}} & (\{\text{FauxR}(\text{True}, x(401, 6, 7), \\
& y(8, 8), x(337, 6, 7), x(260, 6, 7), x(183, 6, 7), x(106, 6, 7), x(29, 6, 7), 37), \\
& \text{FauxR}(\text{True}, \text{y}(11, 1), \text{y}(8, 3), \text{y}(11, 1), \text{y}(8, 1), \text{y}(9, 1), \text{y}(7), \text{y}(6), 449)\} \vee \\
& \{\text{Faux1A1}(\text{False}, \text{y}(8, 8), x(1, 8), \text{y}(7), x(337, 6, 7), x(260, 6, 7), \\
& x(183, 6, 7), x(401, 6, 7), x(106, 6, 7), x(29, 6, 7), 38), \text{Faux1A1}(\text{False}, \\
& \text{y}(8, 3), \text{y}(8, 2), \text{y}(7), \text{y}(11, 1), \text{y}(8, 1), \text{y}(9, 1), \text{y}(11, 1), \text{y}(7), \text{y}(6), 450)\}) \wedge \\
\forall_{\{x(16, 6, 6), x(93, 6, 6), x(170, 6, 6), x(247, 6, 6), x(324, 6, 6), x(400, 6, 6), x(425, 6, 6)\}} & (\{\text{Faux5A2}(\text{True}, \\
& x(425, 6, 6), x(400, 6, 6), x(1, 8), x(324, 6, 6), x(247, 6, 6), \\
& x(170, 6, 6), x(93, 6, 6), x(16, 6, 6), 11), \text{Faux5A2}(\text{True}, \text{y}(11, 1), \\
& \text{y}(7), \text{y}(8, 2), \text{y}(11, 1), \text{y}(11, 1), \text{y}(9, 1), \text{y}(7), \text{y}(6), 545)\} \vee \\
& \{\text{Faux4}(\text{False}, x(425, 6, 6), x(400, 6, 6), y(11, 8), x(324, 6, 6), \\
& x(247, 6, 6), x(170, 6, 6), x(93, 6, 6), x(16, 6, 6), 12), \text{Faux4}(\text{False}, \\
& \text{y}(11, 1), \text{y}(7), \text{y}(11, 3), \text{y}(11, 1), \text{y}(11, 1), \text{y}(9, 1), \text{y}(7), \text{y}(6), 546)\}) \wedge \\
\forall_{\{x(11, 6, 6), x(88, 6, 6), x(165, 6, 6), x(242, 6, 6), x(319, 6, 6), x(395, 6, 6)\}} & (\{\text{FauxR}(\text{True}, x(395, 6, 6), \\
& y(11, 8), x(319, 6, 6), x(242, 6, 6), x(165, 6, 6), x(88, 6, 6), x(11, 6, 6), 1), \\
& \text{FauxR}(\text{True}, \text{y}(11, 1), \text{y}(11, 3), \text{y}(11, 1), \text{y}(11, 1), \text{y}(9, 1), \text{y}(7), \text{y}(6), 549)\} \vee \\
& \{\text{Faux1A2}(\text{False}, \text{y}(11, 8), x(1, 8), \text{y}(7), x(319, 6, 6), x(242, 6, 6), \\
& x(165, 6, 6), x(395, 6, 6), x(88, 6, 6), x(11, 6, 6), 2), \text{Faux1A2}(\text{False}, \\
& \text{y}(11, 3), \text{y}(8, 2), \text{y}(7), \text{y}(11, 1), \text{y}(11, 1), \text{y}(9, 1), \text{y}(11, 1), \text{y}(7), \text{y}(6), 550)\}) \wedge \\
\forall_{x(1, 9)} \exists_{\{y(8, 9), y(11, 9)\}} & (\forall_{\{x(34, 6, 6), x(111, 6, 6), x(188, 6, 6), x(265, 6, 6), x(342, 6, 6), x(406, 6, 6), x(430, 6, 6)\}} (\{\text{Faux5A1}(\text{True}, \\
& \text{True}, x(430, 6, 6), x(406, 6, 6), x(1, 9), x(342, 6, 6), \\
& x(265, 6, 6), x(188, 6, 6), x(111, 6, 6), x(34, 6, 6), 47), \\
& \text{Faux5A1}(\text{True}, \text{y}(8, 1), \text{y}(7), \text{y}(9, 2), \text{y}(8, 1), \text{y}(8, 1), \text{y}(10, 1), \text{y}(7), \text{y}(6), 402)\} \vee \\
& \{\text{Faux4}(\text{False}, x(430, 6, 6), x(406, 6, 6), y(8, 9), x(342, 6, 6), \\
& x(265, 6, 6), x(188, 6, 6), x(111, 6, 6), x(34, 6, 6), 48), \\
& \text{Faux4}(\text{False}, \text{y}(8, 1), \text{y}(7), \text{y}(8, 3), \text{y}(8, 1), \text{y}(8, 1), \text{y}(10, 1), \text{y}(7), \text{y}(6), 403)\}) \wedge \\
\forall_{\{x(29, 6, 7), x(106, 6, 7), x(183, 6, 7), x(260, 6, 7), x(337, 6, 7), x(401, 6, 7)\}} & (\{\text{FauxR}(\text{True}, x(401, 6, 7), \\
& y(8, 9), x(337, 6, 7), x(260, 6, 7), x(183, 6, 7), x(106, 6, 7), x(29, 6, 7), 37), \\
& \text{FauxR}(\text{True}, \text{y}(11, 1), \text{y}(8, 3), \text{y}(8, 1), \text{y}(8, 1), \text{y}(10, 1), \text{y}(7), \text{y}(5), 407)\} \vee \\
& \{\text{Faux1A1}(\text{False}, \text{y}(8, 9), x(1, 9), \text{y}(7), x(337, 6, 7), x(260, 6, 7), \\
& x(183, 6, 7), x(401, 6, 7), x(106, 6, 7), x(29, 6, 7), 38), \text{Faux1A1}(\text{False}, \\
& \text{y}(8, 3), \text{y}(9, 2), \text{y}(7), \text{y}(8, 1), \text{y}(8, 1), \text{y}(10, 1), \text{y}(7), \text{y}(5), 408)\}) \wedge \\
\forall_{\{x(34, 6, 9), x(111, 6, 9), x(188, 6, 9), x(265, 6, 9), x(342, 6, 9), x(406, 6, 9), x(430, 6, 9)\}} & (\{\text{Faux5A1}(\text{True}, 
\end{aligned}$$

$x(430, 6, 9), x(406, 6, 9), x(1, 9), x(342, 6, 9), x(265, 6, 9),$   
 $x(188, 6, 9), x(111, 6, 9), x(34, 6, 9), 47), \text{Faux5A1}(\text{True}, y(11, 1),$   
 $y(7), y(9, 2), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 502)\} \vee$   
 $\{\text{Faux4}(\text{False}, x(430, 6, 9), x(406, 6, 9), y(8, 9), x(342, 6, 9),$   
 $x(265, 6, 9), x(188, 6, 9), x(111, 6, 9), x(34, 6, 9), 48), \text{Faux4}(\text{False},$   
 $y(11, 1), y(7), y(8, 3), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 503)\} \wedge$   
 $\forall_{\{x(29, 6, 10), x(106, 6, 10), x(183, 6, 10), x(260, 6, 10), x(337, 6, 10), x(401, 6, 10)\}} (\{\text{FauxR}(\text{True}, x(401, 6, 10),$   
 $y(8, 9), x(337, 6, 10), x(260, 6, 10), x(183, 6, 10), x(106, 6, 10), x(29, 6, 10),$   
 $37), \text{FauxR}(\text{True}, y(11, 1), y(8, 3), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 506)\} \vee$   
 $\{\text{Faux1A1}(\text{False}, y(8, 9), x(1, 9), y(7), x(337, 6, 10), x(260, 6, 10),$   
 $x(183, 6, 10), x(401, 6, 10), x(106, 6, 10), x(29, 6, 10), 38), \text{Faux1A1}(\text{False},$   
 $y(8, 3), y(9, 2), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 507)\} \wedge$   
 $\forall_{\{x(16, 6, 9), x(93, 6, 9), x(170, 6, 9), x(247, 6, 9), x(324, 6, 9), x(400, 6, 9), x(425, 6, 9)\}} (\{\text{Faux5A2}(\text{True},$   
 $x(425, 6, 9), x(400, 6, 9), x(1, 9), x(324, 6, 9), x(247, 6, 9),$   
 $x(170, 6, 9), x(93, 6, 9), x(16, 6, 9), 11), \text{Faux5A2}(\text{True}, y(11, 1),$   
 $y(7), y(9, 2), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 602)\} \vee$   
 $\{\text{Faux4}(\text{False}, x(425, 6, 9), x(400, 6, 9), y(11, 9), x(324, 6, 9),$   
 $x(247, 6, 9), x(170, 6, 9), x(93, 6, 9), x(16, 6, 9), 12), \text{Faux4}(\text{False},$   
 $y(11, 1), y(7), y(11, 3), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 603)\} \wedge$   
 $\forall_{\{x(11, 6, 9), x(88, 6, 9), x(165, 6, 9), x(242, 6, 9), x(319, 6, 9), x(395, 6, 9)\}} (\{\text{FauxR}(\text{True}, x(395, 6, 9),$   
 $y(11, 9), x(319, 6, 9), x(242, 6, 9), x(165, 6, 9), x(88, 6, 9), x(11, 6, 9), 1),$   
 $\text{FauxR}(\text{True}, y(11, 1), y(11, 3), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 606)\} \vee$   
 $\{\text{Faux1A2}(\text{False}, y(11, 9), x(1, 9), y(7), x(319, 6, 9), x(242, 6, 9),$   
 $x(165, 6, 9), x(395, 6, 9), x(88, 6, 9), x(11, 6, 9), 2), \text{Faux1A2}(\text{False}, y(11, 3),$   
 $y(9, 2), y(7), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 607)\} \wedge$   
 $\forall_{x(1, 10)} \exists_{y(8, 10)} (\forall_{\{x(34, 6, 5), x(111, 6, 5), x(188, 6, 5), x(265, 6, 5), x(342, 6, 5), x(406, 6, 5), x(430, 6, 5)\}} (\{\text{Faux5A1}(\text{True},$   
 $x(430, 6, 5), x(406, 6, 5), x(1, 10), x(342, 6, 5),$   
 $x(265, 6, 5), x(188, 6, 5), x(111, 6, 5), x(34, 6, 5), 47),$   
 $\text{Faux5A1}(\text{True}, y(8, 1), y(7), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 360)\} \vee$   
 $\{\text{Faux4}(\text{False}, x(430, 6, 5), x(406, 6, 5), y(8, 10), x(342, 6, 5),$   
 $x(265, 6, 5), x(188, 6, 5), x(111, 6, 5), x(34, 6, 5), 48),$   
 $\text{Faux4}(\text{False}, y(8, 1), y(7), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 361)\} \wedge$   
 $\forall_{\{x(29, 6, 6), x(106, 6, 6), x(183, 6, 6), x(260, 6, 6), x(337, 6, 6), x(401, 6, 6)\}} (\{\text{FauxR}(\text{True}, x(401, 6, 6),$   
 $y(8, 10), x(337, 6, 6), x(260, 6, 6), x(183, 6, 6), x(106, 6, 6), x(29, 6, 6), 37),$   
 $\text{FauxR}(\text{True}, y(8, 1), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 364)\} \vee$   
 $\{\text{Faux1A1}(\text{False}, y(8, 10), x(1, 10), y(7), x(337, 6, 6), x(260, 6, 6),$   
 $x(183, 6, 6), x(401, 6, 6), x(106, 6, 6), x(29, 6, 6), 38), \text{Faux1A1}(\text{False},$   
 $y(8, 3), y(10, 2), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 365)\} \wedge$   
 $\forall_{x(1, 11)} \exists_{y(8, 11)} (\forall_{\{x(34, 6, 10), x(111, 6, 10), x(188, 6, 10), x(265, 6, 10), x(342, 6, 10), x(406, 6, 10), x(430, 6, 10)\}} (\{\text{Faux5A1}(\text{True},$   
 $x(430, 6, 10), x(406, 6, 10), x(1, 11), x(342, 6, 10),$   
 $x(265, 6, 10), x(188, 6, 10), x(111, 6, 10), x(34, 6, 10), 47),$   
 $\text{Faux5A1}(\text{True}, y(8, 1), y(7), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 459)\} \vee$

$\{Faux4(\text{False}, x(430, 6, 10), x(406, 6, 10), y(8, 11), x(342, 6, 10),$   
 $x(265, 6, 10), x(188, 6, 10), x(111, 6, 10), x(34, 6, 10), 48),$   
 $Faux4(\text{False}, y(8, 1), y(7), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 460)\} \wedge$   
 $\forall_{\{x(29, 6, 11), x(106, 6, 11), x(183, 6, 11), x(260, 6, 11), x(337, 6, 11), x(401, 6, 11)\}} (\{FauxR(\text{True}, x(401, 6, 11),$   
 $y(8, 11), x(337, 6, 11), x(260, 6, 11), x(183, 6, 11), x(106, 6, 11), x(29, 6, 11),$   
 $37), FauxR(\text{True}, y(11, 1), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 464)\} \vee$   
 $\{Faux1A1(\text{False}, y(8, 11), x(1, 11), y(7), x(337, 6, 11), x(260, 6, 11),$   
 $x(183, 6, 11), x(401, 6, 11), x(106, 6, 11), x(29, 6, 11), 38), Faux1A1(\text{False},$   
 $y(8, 3), y(10, 2), y(7), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 465)\}) \wedge$   
 $\forall_{\{x(34, 6, 12), x(111, 6, 12), x(188, 6, 12), x(265, 6, 12), x(342, 6, 12), x(406, 6, 12), x(430, 6, 12)\}} (\{Faux5A1($   
 $\text{True}, x(430, 6, 12), x(406, 6, 12), x(1, 11), x(342, 6, 12), x(265, 6, 12),$   
 $x(188, 6, 12), x(111, 6, 12), x(34, 6, 12), 47), Faux5A1(\text{True},$   
 $y(11, 1), y(7), y(10, 2), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 559)\} \vee$   
 $\{Faux4(\text{False}, x(430, 6, 12), x(406, 6, 12), y(8, 11), x(342, 6, 12),$   
 $x(265, 6, 12), x(188, 6, 12), x(111, 6, 12), x(34, 6, 12), 48), Faux4(\text{False},$   
 $y(11, 1), y(7), y(8, 3), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 560)\}) \wedge$   
 $\forall_{\{x(29, 6, 13), x(106, 6, 13), x(183, 6, 13), x(260, 6, 13), x(337, 6, 13), x(401, 6, 13)\}} (\{FauxR(\text{True}, x(401, 6, 13),$   
 $y(8, 11), x(337, 6, 13), x(260, 6, 13), x(183, 6, 13), x(106, 6, 13), x(29, 6, 13),$   
 $37), FauxR(\text{True}, y(11, 1), y(8, 3), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 563)\} \vee$   
 $\{Faux1A1(\text{False}, y(8, 11), x(1, 11), y(7), x(337, 6, 13), x(260, 6, 13),$   
 $x(183, 6, 13), x(401, 6, 13), x(106, 6, 13), x(29, 6, 13), 38), Faux1A1(\text{False},$   
 $y(8, 3), y(10, 2), y(7), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 564)\}) \wedge$   
 $\forall_{x(1, 12)} \exists_{\{y(9, 12), y(10, 12), y(11, 12)\}} (\forall_{\{x(67, 6, 7), x(144, 6, 7), x(221, 6, 7), x(298, 6, 7), x(375, 6, 7), x(418, 6, 7), x(440, 6, 7)\}} (\{$   
 $Faux5A4(\text{True}, x(440, 6, 7), x(418, 6, 7), x(1, 12), x(375, 6, 7),$   
 $x(298, 6, 7), x(221, 6, 7), x(144, 6, 7), x(67, 6, 7), 115), Faux5A4(\text{True},$   
 $y(8, 1), y(7), y(11, 2), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 417)\} \vee$   
 $\{Faux4(\text{False}, x(440, 6, 7), x(418, 6, 7), y(9, 12), x(375, 6, 7),$   
 $x(298, 6, 7), x(221, 6, 7), x(144, 6, 7), x(67, 6, 7), 116),$   
 $Faux4(\text{False}, y(8, 1), y(7), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 418)\}) \wedge$   
 $\forall_{\{x(62, 6, 7), x(139, 6, 7), x(216, 6, 7), x(293, 6, 7), x(370, 6, 7), x(413, 6, 7)\}} (\{FauxR(\text{True}, x(413, 6, 7),$   
 $y(9, 12), x(370, 6, 7), x(293, 6, 7), x(216, 6, 7), x(139, 6, 7), x(62, 6, 7), 105),$   
 $FauxR(\text{True}, y(8, 1), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 421)\} \vee$   
 $\{Faux1A4(\text{False}, y(9, 12), x(1, 12), y(7), x(370, 6, 7), x(293, 6, 7),$   
 $x(216, 6, 7), x(413, 6, 7), x(139, 6, 7), x(62, 6, 7), 106), Faux1A4(\text{False},$   
 $y(9, 3), y(11, 2), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 422)\}) \wedge$   
 $\forall_{\{x(50, 6, 8), x(127, 6, 8), x(204, 6, 8), x(281, 6, 8), x(358, 6, 8), x(412, 6, 8), x(435, 6, 8)\}} (\{Faux5A3(\text{True},$   
 $x(435, 6, 8), x(412, 6, 8), x(1, 12), x(358, 6, 8), x(281, 6, 8),$   
 $x(204, 6, 8), x(127, 6, 8), x(50, 6, 8), 81), Faux5A3(\text{True}, y(8, 1),$   
 $y(7), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 474)\} \vee$   
 $\{Faux4(\text{False}, x(435, 6, 8), x(412, 6, 8), y(10, 12), x(358, 6, 8),$   
 $x(281, 6, 8), x(204, 6, 8), x(127, 6, 8), x(50, 6, 8), 82), Faux4(\text{False},$   
 $y(8, 1), y(7), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 475)\}) \wedge$

$$\begin{aligned}
& \forall_{\{x(45, 6, 8), x(122, 6, 8), x(199, 6, 8), x(276, 6, 8), x(353, 6, 8), x(407, 6, 8)\}} (\{\text{FauxR}(\text{True}, x(407, 6, 8), \\
& \quad y(10, 12), x(353, 6, 8), x(276, 6, 8), x(199, 6, 8), x(122, 6, 8), x(45, 6, 8), 71), \\
& \quad \text{FauxR}(\text{True}, y(8, 1), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 478)\} \vee \\
& \quad \{\text{Faux1A3}(\text{False}, y(10, 12), x(1, 12), y(7), x(353, 6, 8), x(276, 6, 8), \\
& \quad x(199, 6, 8), x(407, 6, 8), x(122, 6, 8), x(45, 6, 8), 72), \text{Faux1A3}(\text{False}, \\
& \quad y(10, 3), y(11, 2), y(7), y(9, 1), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 479)\}) \wedge \\
& \forall_{\{x(16, 6, 9), x(93, 6, 9), x(170, 6, 9), x(247, 6, 9), x(324, 6, 9), x(400, 6, 9), x(425, 6, 9)\}} (\{\text{Faux5A2}(\text{True}, \\
& \quad x(425, 6, 9), x(400, 6, 9), x(1, 12), x(324, 6, 9), x(247, 6, 9), \\
& \quad x(170, 6, 9), x(93, 6, 9), x(16, 6, 9), 11), \text{Faux5A2}(\text{True}, y(9, 1), \\
& \quad y(7), y(11, 2), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 531)\} \vee \\
& \quad \{\text{Faux4}(\text{False}, x(425, 6, 9), x(400, 6, 9), y(11, 12), x(324, 6, 9), \\
& \quad x(247, 6, 9), x(170, 6, 9), x(93, 6, 9), x(16, 6, 9), 12), \text{Faux4}(\text{False}, \\
& \quad y(9, 1), y(7), y(11, 3), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 532)\}) \wedge \\
& \forall_{\{x(11, 6, 9), x(88, 6, 9), x(165, 6, 9), x(242, 6, 9), x(319, 6, 9), x(395, 6, 9)\}} (\{\text{FauxR}(\text{True}, x(395, 6, 9), \\
& \quad y(11, 12), x(319, 6, 9), x(242, 6, 9), x(165, 6, 9), x(88, 6, 9), x(11, 6, 9), 1), \\
& \quad \text{FauxR}(\text{True}, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 535)\} \vee \\
& \quad \{\text{Faux1A2}(\text{False}, y(11, 12), x(1, 12), y(7), x(319, 6, 9), x(242, 6, 9), \\
& \quad x(165, 6, 9), x(395, 6, 9), x(88, 6, 9), x(11, 6, 9), 2), \text{Faux1A2}(\text{False}, y(11, 3), \\
& \quad y(11, 2), y(7), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 536)\}) \wedge \\
& \forall_{x(1, 13)} \exists_{y(11, 13)} (\forall_{\{x(16, 6, 12), x(93, 6, 12), x(170, 6, 12), x(247, 6, 12), x(324, 6, 12), x(400, 6, 12), x(425, 6, 12)\}} (\{\text{Faux5A2}(\text{True}, \\
& \quad x(425, 6, 12), x(400, 6, 12), x(1, 13), x(324, 6, 12), x(247, 6, 12), \\
& \quad x(170, 6, 12), x(93, 6, 12), x(16, 6, 12), 11), \text{Faux5A2}(\text{True}, y(10, 1), \\
& \quad y(7), y(11, 2), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 588)\} \vee \\
& \quad \{\text{Faux4}(\text{False}, x(425, 6, 12), x(400, 6, 12), y(11, 13), x(324, 6, 12), \\
& \quad x(247, 6, 12), x(170, 6, 12), x(93, 6, 12), x(16, 6, 12), 12), \text{Faux4}(\text{False}, \\
& \quad y(10, 1), y(7), y(11, 3), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 589)\}) \wedge \\
& \forall_{\{x(11, 6, 12), x(88, 6, 12), x(165, 6, 12), x(242, 6, 12), x(319, 6, 12), x(395, 6, 12)\}} (\{\text{FauxR}(\text{True}, x(395, 6, 12), \\
& \quad y(11, 13), x(319, 6, 12), x(242, 6, 12), x(165, 6, 12), x(88, 6, 12), x(11, 6, 12), \\
& \quad 1), \text{FauxR}(\text{True}, y(10, 1), y(11, 3), y(11, 1), y(11, 1), y(11, 1), y(7), y(6), 592)\} \vee \\
& \quad \{\text{Faux1A2}(\text{False}, y(11, 13), x(1, 13), y(7), x(319, 6, 12), x(242, 6, 12), \\
& \quad x(165, 6, 12), x(395, 6, 12), x(88, 6, 12), x(11, 6, 12), 2), \text{Faux1A2}(\text{False}, \\
& \quad y(11, 3), y(11, 2), y(7), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 593)\}) \wedge \\
& \forall_{x(1, 14)} \exists_{\{y(9, 14), y(10, 14), y(11, 14)\}} (\forall_{\{x(67, 6, 10), x(144, 6, 10), x(221, 6, 10), x(298, 6, 10), x(375, 6, 10), x(418, 6, 10), x(440, 6, 10)\}} (\{\text{Faux5A4}(\text{True}, \\
& \quad x(440, 6, 10), x(418, 6, 10), x(1, 14), x(375, 6, 10), \\
& \quad x(298, 6, 10), x(221, 6, 10), x(144, 6, 10), x(67, 6, 10), 115), \text{Faux5A4}(\text{True}, y(8, 1), y(7), y(11, 2), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 516)\} \vee \\
& \quad \{\text{Faux4}(\text{False}, x(440, 6, 10), x(418, 6, 10), y(9, 14), x(375, 6, 10), \\
& \quad x(298, 6, 10), x(221, 6, 10), x(144, 6, 10), x(67, 6, 10), 116), \\
& \quad \text{Faux4}(\text{False}, y(8, 1), y(7), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 517)\}) \wedge \\
& \forall_{\{x(62, 6, 10), x(139, 6, 10), x(216, 6, 10), x(293, 6, 10), x(370, 6, 10), x(413, 6, 10)\}} (\{\text{FauxR}(\text{True}, x(413, 6, 10), \\
& \quad y(9, 14), x(370, 6, 10), x(293, 6, 10), x(216, 6, 10), x(139, 6, 10), x(62, 6, 10), \\
& \quad 105), \text{FauxR}(\text{True}, y(11, 1), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 521)\})
\end{aligned}$$

```

{Faux1A4(False, y(9, 14), x(1, 14), y(7), x(370, 6, 10), x(293, 6, 10),
  x(216, 6, 10), x(413, 6, 10), x(139, 6, 10), x(62, 6, 10), 106), Faux1A4(False,
  y(9, 3), y(11, 2), y(7), y(8, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 522)}) \wedge
  \forall_{\{x(50, 6, 11), x(127, 6, 11), x(204, 6, 11), x(281, 6, 11), x(358, 6, 11), x(412, 6, 11), x(435, 6, 11)\}} (\{Faux5A3(
    True, x(435, 6, 11), x(412, 6, 11), x(1, 14), x(358, 6, 11), x(281, 6, 11),
    x(204, 6, 11), x(127, 6, 11), x(50, 6, 11), 81), Faux5A3(True,
    y(8, 1), y(7), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 573)\}) \vee
  {Faux4(False, x(435, 6, 11), x(412, 6, 11), y(10, 14), x(358, 6, 11),
    x(281, 6, 11), x(204, 6, 11), x(127, 6, 11), x(50, 6, 11), 82), Faux4(False,
    y(8, 1), y(7), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 574)}) \wedge
  \forall_{\{x(45, 6, 11), x(122, 6, 11), x(199, 6, 11), x(276, 6, 11), x(353, 6, 11), x(407, 6, 11)\}} (\{FauxR(True,
    x(407, 6, 11), y(10, 14), x(353, 6, 11), x(276, 6, 11),
    x(199, 6, 11), x(122, 6, 11), x(45, 6, 11), 71),
    FauxR(True, y(11, 1), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 578)\}) \vee
  {Faux1A3(False, y(10, 14), x(1, 14), y(7), x(353, 6, 11), x(276, 6, 11),
    x(199, 6, 11), x(407, 6, 11), x(122, 6, 11), x(45, 6, 11), 72), Faux1A3(False,
    y(10, 3), y(11, 2), y(7), y(9, 1), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 579)}) \wedge
  \forall_{\{x(67, 6, 11), x(144, 6, 11), x(221, 6, 11), x(298, 6, 11), x(375, 6, 11), x(418, 6, 11), x(440, 6, 11)\}} (\{Faux5A4(
    True, x(440, 6, 11), x(418, 6, 11), x(1, 14), x(375, 6, 11), x(298, 6, 11),
    x(221, 6, 11), x(144, 6, 11), x(67, 6, 11), 115), Faux5A4(True,
    y(11, 1), y(7), y(11, 2), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 616)\}) \vee
  {Faux4(False, x(440, 6, 11), x(418, 6, 11), y(9, 14), x(375, 6, 11),
    x(298, 6, 11), x(221, 6, 11), x(144, 6, 11), x(67, 6, 11), 116), Faux4(False,
    y(11, 1), y(7), y(9, 3), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 617)}) \wedge
  \forall_{\{x(62, 6, 11), x(139, 6, 11), x(216, 6, 11), x(293, 6, 11), x(370, 6, 11), x(413, 6, 11)\}} (\{FauxR(True,
    x(413, 6, 11), y(9, 14), x(370, 6, 11), x(293, 6, 11),
    x(216, 6, 11), x(139, 6, 11), x(62, 6, 11), 105),
    FauxR(True, y(11, 1), y(9, 3), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 620)\}) \vee
  {Faux1A4(False, y(9, 14), x(1, 14), y(7), x(370, 6, 11), x(293, 6, 11),
    x(216, 6, 11), x(413, 6, 11), x(139, 6, 11), x(62, 6, 11), 106), Faux1A4(False,
    y(9, 3), y(11, 2), y(7), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 621)}) \wedge
  \forall_{\{x(16, 6, 15), x(93, 6, 15), x(170, 6, 15), x(247, 6, 15), x(324, 6, 15), x(400, 6, 15), x(425, 6, 15)\}} (\{Faux5A2(
    True, x(425, 6, 15), x(400, 6, 15), x(1, 14), x(324, 6, 15), x(247, 6, 15),
    x(170, 6, 15), x(93, 6, 15), x(16, 6, 15), 11), Faux5A2(True, y(9, 1),
    y(7), y(11, 2), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 630)\}) \vee
  {Faux4(False, x(425, 6, 15), x(400, 6, 15), y(11, 14), x(324, 6, 15),
    x(247, 6, 15), x(170, 6, 15), x(93, 6, 15), x(16, 6, 15), 12), Faux4(False,
    y(9, 1), y(7), y(11, 3), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 631)}) \wedge
  {Faux0(False, y(7), y(7), y(7), y(7), 139),
  Faux0(
  False,
  y(

```

$y(7), y(7), y(7), y(7), y(7), y(7), 1) \} \wedge$   
 $\forall_{\{x(2,1), x(79,1), x(156,1), x(233,1), x(310,1), x(387,1), x(419,1), x(441,1)\}} (\{Faux2(True,$   
 $x(2, 1), y(7), x(441, 1), x(419, 1), x(387, 1),$   
 $x(310, 1), x(233, 1), x(156, 1), x(79, 1), 140),$   
 $Faux2(True, y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 6)\} \vee$   
 $\{Faux4(False, x(2, 1), x(441, 1), x(419, 1), x(387, 1),$   
 $x(310, 1), x(233, 1), x(156, 1), x(79, 1), 141),$   
 $Faux4(False, y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 7)\}) \wedge$   
 $\forall_{\{x(2,2), x(79,2), x(156,2), x(233,2), x(310,2), x(387,2), x(419,2), x(441,2)\}} (\{Faux2(True, x(2, 2), y(7),$   
 $x(441, 2), x(419, 2), x(387, 2), x(310, 2), x(233, 2), x(156, 2), x(79, 2), 140),$   
 $Faux2(True, y(8, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(6), 12)\} \vee$   
 $\{Faux4(False, x(2, 2), x(441, 2), x(419, 2), x(387, 2),$   
 $x(310, 2), x(233, 2), x(156, 2), x(79, 2), 141),$   
 $Faux4(False, y(8, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(6), 13)\}) \wedge$   
 $\forall_{\{x(2,3), x(79,3), x(156,3), x(233,3), x(310,3), x(387,3), x(419,3), x(441,3)\}} (\{Faux2(True, x(2, 3), y(7),$   
 $x(441, 3), x(419, 3), x(387, 3), x(310, 3), x(233, 3), x(156, 3), x(79, 3), 140),$   
 $Faux2(True, y(8, 1), y(7), y(9, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(5), 19)\} \vee$   
 $\{Faux4(False, x(2, 3), x(441, 3), x(419, 3), x(387, 3),$   
 $x(310, 3), x(233, 3), x(156, 3), x(79, 3), 141),$   
 $Faux4(False, y(8, 1), y(7), y(9, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(5), 20)\}) \wedge$   
 $\forall_{\{x(2,4), x(79,4), x(156,4), x(233,4), x(310,4), x(387,4), x(419,4), x(441,4)\}} (\{Faux2(True, x(2, 4), y(7),$   
 $x(441, 4), x(419, 4), x(387, 4), x(310, 4), x(233, 4), x(156, 4), x(79, 4), 140),$   
 $Faux2(True, y(9, 1), y(7), y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 25)\} \vee$   
 $\{Faux4(False, x(2, 4), x(441, 4), x(419, 4), x(387, 4),$   
 $x(310, 4), x(233, 4), x(156, 4), x(79, 4), 141),$   
 $Faux4(False, y(9, 1), y(7), y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 26)\}) \wedge$   
 $\forall_{\{x(2,5), x(79,5), x(156,5), x(233,5), x(310,5), x(387,5), x(419,5), x(441,5)\}} (\{Faux2(True, x(2, 5), y(7),$   
 $x(441, 5), x(419, 5), x(387, 5), x(310, 5), x(233, 5), x(156, 5), x(79, 5), 140),$   
 $Faux2(True, y(11, 1), y(7), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 31)\} \vee$   
 $\{Faux4(False, x(2, 5), x(441, 5), x(419, 5), x(387, 5),$   
 $x(310, 5), x(233, 5), x(156, 5), x(79, 5), 141),$   
 $Faux4(False, y(11, 1), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 32)\}) \wedge$   
 $\forall_{\{x(2,6), x(79,6), x(156,6), x(233,6), x(310,6), x(387,6), x(419,6), x(441,6)\}} (\{Faux2(True, x(2, 6), y(7),$   
 $x(441, 6), x(419, 6), x(387, 6), x(310, 6), x(233, 6), x(156, 6), x(79, 6), 140),$   
 $Faux2(True, y(10, 1), y(7), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 37)\} \vee$   
 $\{Faux4(False, x(2, 6), x(441, 6), x(419, 6), x(387, 6),$   
 $x(310, 6), x(233, 6), x(156, 6), x(79, 6), 141),$   
 $Faux4(False, y(10, 1), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 38)\}) \wedge$

$$\begin{aligned}
& \forall_{\{x(2,7), x(79,7), x(156,7), x(233,7), x(310,7), x(387,7), x(419,7), x(441,7)\}} (\{\text{Faux2}(\text{True}, x(2, 7), y(7), \\
& \quad x(441, 7), x(419, 7), x(387, 7), x(310, 7), x(233, 7), x(156, 7), x(79, 7), 140), \\
& \quad \text{Faux2}(\text{True}, y(11, 1), y(7), y(7), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(2), 43)\} \vee \\
& \quad \{\text{Faux4}(\text{False}, x(2, 7), x(441, 7), x(419, 7), x(387, 7), \\
& \quad x(310, 7), x(233, 7), x(156, 7), x(79, 7), 141), \\
& \quad \text{Faux4}(\text{False}, y(11, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(2), 44)\}) \wedge \\
& \forall_{\{x(2,8), x(79,8), x(156,8), x(233,8), x(310,8), x(387,8), x(419,8), x(441,8)\}} (\{\text{Faux2}(\text{True}, x(2, 8), y(7), \\
& \quad x(441, 8), x(419, 8), x(387, 8), x(310, 8), x(233, 8), x(156, 8), x(79, 8), 140), \\
& \quad \text{Faux2}(\text{True}, y(8, 1), y(7), y(7), y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 50)\} \vee \\
& \quad \{\text{Faux4}(\text{False}, x(2, 8), x(441, 8), x(419, 8), x(387, 8), \\
& \quad x(310, 8), x(233, 8), x(156, 8), x(79, 8), 141), \\
& \quad \text{Faux4}(\text{False}, y(8, 1), y(7), y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 51)\}) \wedge \\
& \forall_{\{x(2,9), x(79,9), x(156,9), x(233,9), x(310,9), x(387,9), x(419,9), x(441,9)\}} (\{\text{Faux2}(\text{True}, x(2, 9), y(7), \\
& \quad x(441, 9), x(419, 9), x(387, 9), x(310, 9), x(233, 9), x(156, 9), x(79, 9), 140), \\
& \quad \text{Faux2}(\text{True}, y(9, 1), y(7), y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 56)\} \vee \\
& \quad \{\text{Faux4}(\text{False}, x(2, 9), x(441, 9), x(419, 9), x(387, 9), \\
& \quad x(310, 9), x(233, 9), x(156, 9), x(79, 9), 141), \\
& \quad \text{Faux4}(\text{False}, y(9, 1), y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 57)\}) \wedge \\
& \forall_{\{x(2,10), x(79,10), x(156,10), x(233,10), x(310,10), x(387,10), x(419,10), x(441,10)\}} (\{\text{Faux2}(\text{True}, x(2, 10), y(7), \\
& \quad x(441, 10), x(419, 10), x(387, 10), x(310, 10), x(233, 10), x(156, 10), x(79, 10), 140), \\
& \quad \text{Faux2}(\text{True}, y(11, 1), y(7), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 62)\} \vee \\
& \quad \{\text{Faux4}(\text{False}, x(2, 10), x(441, 10), x(419, 10), x(387, 10), \\
& \quad x(310, 10), x(233, 10), x(156, 10), x(79, 10), 141), \\
& \quad \text{Faux4}(\text{False}, y(11, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 63)\}) \wedge \\
& \forall_{\{x(2,11), x(79,11), x(156,11), x(233,11), x(310,11), x(387,11), x(419,11), x(441,11)\}} (\{\text{Faux2}(\text{True}, x(2, 11), y(7), \\
& \quad x(441, 11), x(419, 11), x(387, 11), x(310, 11), x(233, 11), x(156, 11), x(79, 11), 140), \\
& \quad \text{Faux2}(\text{True}, y(10, 1), y(7), y(7), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 69)\} \vee \\
& \quad \{\text{Faux4}(\text{False}, x(2, 11), x(441, 11), x(419, 11), x(387, 11), \\
& \quad x(310, 11), x(233, 11), x(156, 11), x(79, 11), 141), \\
& \quad \text{Faux4}(\text{False}, y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 70)\}) \wedge \\
& \forall_{\{x(2,12), x(79,12), x(156,12), x(233,12), x(310,12), x(387,12), x(419,12), x(441,12)\}} (\{\text{Faux2}(\text{True}, x(2, 12), y(7), \\
& \quad x(441, 12), x(419, 12), x(387, 12), x(310, 12), x(233, 12), x(156, 12), x(79, 12), 140), \\
& \quad \text{Faux2}(\text{True}, y(8, 1), y(7), y(7), y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(7), y(4), 75)\} \vee \\
& \quad \{\text{Faux4}(\text{False}, x(2, 12), x(441, 12), x(419, 12), x(387, 12), \\
& \quad x(310, 12), x(233, 12), x(156, 12), x(79, 12), 141), \\
& \quad \text{Faux4}(\text{False}, y(8, 1), y(7), y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(7), y(4), 76)\}) \wedge \\
& \forall_{\{x(2,13), x(79,13), x(156,13), x(233,13), x(310,13), x(387,13), x(419,13), x(441,13)\}} (\{\text{Faux2}(\text{True}, x(2, 13), y(7), \\
& \quad x(441, 13), x(419, 13), x(387, 13), x(310, 13), x(233, 13), x(156, 13), x(79, 13), 140), \\
& \quad \text{Faux2}(\text{True}, y(8, 1), y(7), y(7), y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 81)\} \vee \\
& \quad \{\text{Faux4}(\text{False}, x(2, 13), x(441, 13), x(419, 13), x(387, 13), \\
& \quad x(310, 13), x(233, 13), x(156, 13), x(79, 13), 141), \\
& \quad \text{Faux4}(\text{False}, y(8, 1), y(7), y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 82)\}) \wedge
\end{aligned}$$

$$\begin{aligned}
& \forall_{\{x(2,14), x(79,14), x(156,14), x(233,14), x(310,14), x(387,14), x(419,14), x(441,14)\}} (\{\text{Faux2}(\text{True}, x(2, 14), y(7), \\
& \quad x(441, 14), x(419, 14), x(387, 14), x(310, 14), x(233, 14), x(156, 14), x(79, 14), 140), \\
& \quad \text{Faux2}(\text{True}, y(9, 1), y(7), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 87)\} \vee \\
& \quad \{\text{Faux4}(\text{False}, x(2, 14), x(441, 14), x(419, 14), x(387, 14), \\
& \quad x(310, 14), x(233, 14), x(156, 14), x(79, 14), 141), \\
& \quad \text{Faux4}(\text{False}, y(9, 1), y(7), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 88)\}) \wedge \\
& \forall_{\{x(2,15), x(79,15), x(156,15), x(233,15), x(310,15), x(387,15), x(419,15), x(441,15)\}} (\{\text{Faux2}(\text{True}, x(2, 15), y(7), \\
& \quad x(441, 15), x(419, 15), x(387, 15), x(310, 15), x(233, 15), x(156, 15), x(79, 15), 140), \\
& \quad \text{Faux2}(\text{True}, y(8, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 93)\} \vee \\
& \quad \{\text{Faux4}(\text{False}, x(2, 15), x(441, 15), x(419, 15), x(387, 15), \\
& \quad x(310, 15), x(233, 15), x(156, 15), x(79, 15), 141), \\
& \quad \text{Faux4}(\text{False}, y(8, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 94)\}) \wedge \\
& \forall_{\{x(2,16), x(79,16), x(156,16), x(233,16), x(310,16), x(387,16), x(419,16), x(441,16)\}} (\{\text{Faux2}(\text{True}, x(2, 16), y(7), \\
& \quad x(441, 16), x(419, 16), x(387, 16), x(310, 16), x(233, 16), x(156, 16), x(79, 16), 140), \\
& \quad \text{Faux2}(\text{True}, y(8, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(11, 1), \\
& \quad y(7), y(5), 104)\} \vee \{\text{Faux4}(\text{False}, x(2, 16), x(441, 16), x(419, 16), \\
& \quad x(387, 16), x(310, 16), x(233, 16), x(156, 16), x(79, 16), 141), \\
& \quad \text{Faux4}(\text{False}, y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 105)\}) \wedge \\
& \forall_{\{x(2,17), x(79,17), x(156,17), x(233,17), x(310,17), x(387,17), x(419,17), x(441,17)\}} (\{\text{Faux2}(\text{True}, x(2, 17), y(7), \\
& \quad x(441, 17), x(419, 17), x(387, 17), x(310, 17), x(233, 17), x(156, 17), x(79, 17), 140), \\
& \quad \text{Faux2}(\text{True}, y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(8, 1), \\
& \quad y(7), y(5), 114)\} \vee \{\text{Faux4}(\text{False}, x(2, 17), x(441, 17), x(419, 17), \\
& \quad x(387, 17), x(310, 17), x(233, 17), x(156, 17), x(79, 17), 141), \\
& \quad \text{Faux4}(\text{False}, y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 115)\}) \wedge \\
& \forall_{\{x(2,18), x(79,18), x(156,18), x(233,18), x(310,18), x(387,18), x(419,18), x(441,18)\}} (\{\text{Faux2}(\text{True}, x(2, 18), y(7), \\
& \quad x(441, 18), x(419, 18), x(387, 18), x(310, 18), x(233, 18), x(156, 18), x(79, 18), 140), \\
& \quad \text{Faux2}(\text{True}, y(8, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(10, 1), \\
& \quad y(7), y(6), 124)\} \vee \{\text{Faux4}(\text{False}, x(2, 18), x(441, 18), x(419, 18), \\
& \quad x(387, 18), x(310, 18), x(233, 18), x(156, 18), x(79, 18), 141), \\
& \quad \text{Faux4}(\text{False}, y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 125)\}) \wedge \\
& \forall_{\{x(2,19), x(79,19), x(156,19), x(233,19), x(310,19), x(387,19), x(419,19), x(441,19)\}} (\{\text{Faux2}(\text{True}, x(2, 19), y(7), \\
& \quad x(441, 19), x(419, 19), x(387, 19), x(310, 19), x(233, 19), x(156, 19), x(79, 19), 140), \\
& \quad \text{Faux2}(\text{True}, y(8, 1), y(7), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(11, 1), \\
& \quad y(7), y(5), 135)\} \vee \{\text{Faux4}(\text{False}, x(2, 19), x(441, 19), x(419, 19), \\
& \quad x(387, 19), x(310, 19), x(233, 19), x(156, 19), x(79, 19), 141), \\
& \quad \text{Faux4}(\text{False}, y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 136)\}) \wedge \\
& \forall_{\{x(2,20), x(79,20), x(156,20), x(233,20), x(310,20), x(387,20), x(419,20), x(441,20)\}} (\{\text{Faux2}(\text{True}, x(2, 20), y(7), \\
& \quad x(441, 20), x(419, 20), x(387, 20), x(310, 20), x(233, 20), x(156, 20), x(79, 20), 140), \\
& \quad \text{Faux2}(\text{True}, y(9, 1), y(7), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(8, 1), \\
& \quad y(7), y(5), 145)\} \vee \{\text{Faux4}(\text{False}, x(2, 20), x(441, 20), x(419, 20), \\
& \quad x(387, 20), x(310, 20), x(233, 20), x(156, 20), x(79, 20), 141), \\
& \quad \text{Faux4}(\text{False}, y(9, 1), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 146)\}) \wedge
\end{aligned}$$

$$\begin{aligned}
& \forall_{\{x(2,21), x(79,21), x(156,21), x(233,21), x(310,21), x(387,21), x(419,21), x(441,21)\}} (\{\text{Faux2}(\text{True}, x(2, 21), y(7), \\
& \quad x(441, 21), x(419, 21), x(387, 21), x(310, 21), x(233, 21), x(156, 21), x(79, 21), 140), \\
& \quad \text{Faux2}(\text{True}, y(11, 1), y(7), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), \\
& \quad y(7), y(6), 155)\} \vee \{\text{Faux4}(\text{False}, x(2, 21), x(441, 21), x(419, 21), \\
& \quad x(387, 21), x(310, 21), x(233, 21), x(156, 21), x(79, 21), 141), \\
& \quad \text{Faux4}(\text{False}, y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 156)\}) \wedge \\
& \forall_{\{x(2,22), x(79,22), x(156,22), x(233,22), x(310,22), x(387,22), x(419,22), x(441,22)\}} (\{\text{Faux2}(\text{True}, x(2, 22), y(7), \\
& \quad x(441, 22), x(419, 22), x(387, 22), x(310, 22), x(233, 22), x(156, 22), x(79, 22), 140), \\
& \quad \text{Faux2}(\text{True}, y(8, 1), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), \\
& \quad y(7), y(6), 165)\} \vee \{\text{Faux4}(\text{False}, x(2, 22), x(441, 22), x(419, 22), \\
& \quad x(387, 22), x(310, 22), x(233, 22), x(156, 22), x(79, 22), 141), \\
& \quad \text{Faux4}(\text{False}, y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 166)\}) \wedge \\
& \forall_{\{x(2,23), x(79,23), x(156,23), x(233,23), x(310,23), x(387,23), x(419,23), x(441,23)\}} (\{\text{Faux2}(\text{True}, x(2, 23), y(7), \\
& \quad x(441, 23), x(419, 23), x(387, 23), x(310, 23), x(233, 23), x(156, 23), x(79, 23), 140), \\
& \quad \text{Faux2}(\text{True}, y(10, 1), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(11, 1), \\
& \quad y(7), y(5), 176)\} \vee \{\text{Faux4}(\text{False}, x(2, 23), x(441, 23), x(419, 23), \\
& \quad x(387, 23), x(310, 23), x(233, 23), x(156, 23), x(79, 23), 141), \\
& \quad \text{Faux4}(\text{False}, y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 177)\}) \wedge \\
& \forall_{\{x(2,24), x(79,24), x(156,24), x(233,24), x(310,24), x(387,24), x(419,24), x(441,24)\}} (\{\text{Faux2}(\text{True}, x(2, 24), y(7), \\
& \quad x(441, 24), x(419, 24), x(387, 24), x(310, 24), x(233, 24), x(156, 24), x(79, 24), 140), \\
& \quad \text{Faux2}(\text{True}, y(11, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(10, 1), \\
& \quad y(7), y(6), 186)\} \vee \{\text{Faux4}(\text{False}, x(2, 24), x(441, 24), x(419, 24), \\
& \quad x(387, 24), x(310, 24), x(233, 24), x(156, 24), x(79, 24), 141), \\
& \quad \text{Faux4}(\text{False}, y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 187)\}) \wedge \\
& \forall_{\{x(2,25), x(79,25), x(156,25), x(233,25), x(310,25), x(387,25), x(419,25), x(441,25)\}} (\{\text{Faux2}(\text{True}, x(2, 25), y(7), \\
& \quad x(441, 25), x(419, 25), x(387, 25), x(310, 25), x(233, 25), x(156, 25), x(79, 25), 140), \\
& \quad \text{Faux2}(\text{True}, y(8, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(11, 1), \\
& \quad y(7), y(6), 196)\} \vee \{\text{Faux4}(\text{False}, x(2, 25), x(441, 25), x(419, 25), \\
& \quad x(387, 25), x(310, 25), x(233, 25), x(156, 25), x(79, 25), 141), \\
& \quad \text{Faux4}(\text{False}, y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 197)\}) \wedge \\
& \forall_{\{x(2,26), x(79,26), x(156,26), x(233,26), x(310,26), x(387,26), x(419,26), x(441,26)\}} (\{\text{Faux2}(\text{True}, \\
& \quad x(2, 26), y(7), x(441, 26), x(419, 26), x(387, 26), x(310, 26), \\
& \quad x(233, 26), x(156, 26), x(79, 26), 140), \text{Faux2}(\text{True}, y(9, 1), y(7), \\
& \quad y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 207)\} \vee \\
& \quad \{\text{Faux4}(\text{False}, x(2, 26), x(441, 26), x(419, 26), x(387, 26), x(310, 26), \\
& \quad x(233, 26), x(156, 26), x(79, 26), 141), \text{Faux4}(\text{False}, y(9, 1), \\
& \quad y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(5), 208)\}) \wedge \\
& \forall_{\{x(2,27), x(79,27), x(156,27), x(233,27), x(310,27), x(387,27), x(419,27), x(441,27)\}} (\{\text{Faux2}(\text{True}, x(2, 27), \\
& \quad y(7), x(441, 27), x(419, 27), x(387, 27), x(310, 27), x(233, 27), \\
& \quad x(156, 27), x(79, 27), 140), \text{Faux2}(\text{True}, y(11, 1), y(7), \\
& \quad y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 217)\} \vee \\
& \quad \{\text{Faux4}(\text{False}, x(2, 27), x(441, 27), x(419, 27), x(387, 27), x(310, 27),
\end{aligned}$$

$x(233, 27), x(156, 27), x(79, 27), 141), \text{Faux4(False, } y(11, 1),$   
 $y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 218\}) \wedge$   
 $\forall_{\{x(2, 28), x(79, 28), x(156, 28), x(233, 28), x(310, 28), x(387, 28), x(419, 28), x(441, 28)\}} (\{\text{Faux2(True, } x(2, 28),$   
 $y(7), x(441, 28), x(419, 28), x(387, 28), x(310, 28), x(233, 28),$   
 $x(156, 28), x(79, 28), 140), \text{Faux2(True, } y(11, 1), y(7),$   
 $y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 227\}) \vee$   
 $\{\text{Faux4(False, } x(2, 28), x(441, 28), x(419, 28), x(387, 28), x(310, 28),$   
 $x(233, 28), x(156, 28), x(79, 28), 141), \text{Faux4(False, } y(11, 1),$   
 $y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 228\}) \wedge$   
 $\forall_{\{x(2, 29), x(79, 29), x(156, 29), x(233, 29), x(310, 29), x(387, 29), x(419, 29), x(441, 29)\}} (\{\text{Faux2(True, } x(2, 29),$   
 $y(7), x(441, 29), x(419, 29), x(387, 29), x(310, 29), x(233, 29),$   
 $x(156, 29), x(79, 29), 140), \text{Faux2(True, } y(10, 1), y(7),$   
 $y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 237\}) \vee$   
 $\{\text{Faux4(False, } x(2, 29), x(441, 29), x(419, 29), x(387, 29), x(310, 29),$   
 $x(233, 29), x(156, 29), x(79, 29), 141), \text{Faux4(False, } y(10, 1),$   
 $y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 238\}) \wedge$   
 $\forall_{\{x(2, 30), x(79, 30), x(156, 30), x(233, 30), x(310, 30), x(387, 30), x(419, 30), x(441, 30)\}} (\{\text{Faux2(True, } x(2, 30),$   
 $y(7), x(441, 30), x(419, 30), x(387, 30), x(310, 30), x(233, 30),$   
 $x(156, 30), x(79, 30), 140), \text{Faux2(True, } y(11, 1), y(7),$   
 $y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 247\}) \vee$   
 $\{\text{Faux4(False, } x(2, 30), x(441, 30), x(419, 30), x(387, 30), x(310, 30),$   
 $x(233, 30), x(156, 30), x(79, 30), 141), \text{Faux4(False, } y(11, 1),$   
 $y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 248\}) \wedge$   
 $\forall_{\{x(2, 31), x(79, 31), x(156, 31), x(233, 31), x(310, 31), x(387, 31), x(419, 31), x(441, 31)\}} (\{\text{Faux2(True, } x(2, 31), y(7),$   
 $x(441, 31), x(419, 31), x(387, 31), x(310, 31), x(233, 31), x(156, 31), x(79, 31), 140),$   
 $\text{Faux2(True, } y(11, 1), y(7), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(8, 1),$   
 $y(7), y(2), 258\}) \vee \{\text{Faux4(False, } x(2, 31), x(441, 31), x(419, 31),$   
 $x(387, 31), x(310, 31), x(233, 31), x(156, 31), x(79, 31), 141),$   
 $\text{Faux4(False, } y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 259\}) \wedge$   
 $\forall_{\{x(2, 32), x(79, 32), x(156, 32), x(233, 32), x(310, 32), x(387, 32), x(419, 32), x(441, 32)\}} (\{\text{Faux2(True, } x(2, 32), y(7),$   
 $x(441, 32), x(419, 32), x(387, 32), x(310, 32), x(233, 32), x(156, 32), x(79, 32), 140),$   
 $\text{Faux2(True, } y(9, 1), y(7), y(11, 1), y(11, 1), y(10, 1), y(8, 1), y(8, 1),$   
 $y(7), y(2), 269\}) \vee \{\text{Faux4(False, } x(2, 32), x(441, 32), x(419, 32),$   
 $x(387, 32), x(310, 32), x(233, 32), x(156, 32), x(79, 32), 141),$   
 $\text{Faux4(False, } y(9, 1), y(11, 1), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 270\}) \wedge$   
 $\forall_{\{x(2, 33), x(79, 33), x(156, 33), x(233, 33), x(310, 33), x(387, 33), x(419, 33), x(441, 33)\}} (\{\text{Faux2(True, } x(2, 33), y(7),$   
 $x(441, 33), x(419, 33), x(387, 33), x(310, 33), x(233, 33), x(156, 33), x(79, 33), 140),$   
 $\text{Faux2(True, } y(11, 1), y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1),$   
 $y(7), y(2), 279\}) \vee \{\text{Faux4(False, } x(2, 33), x(441, 33), x(419, 33),$   
 $x(387, 33), x(310, 33), x(233, 33), x(156, 33), x(79, 33), 141),$   
 $\text{Faux4(False, } y(11, 1), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 280\}) \wedge$   
 $\forall_{\{x(2, 34), x(79, 34), x(156, 34), x(233, 34), x(310, 34), x(387, 34), x(419, 34), x(441, 34)\}} (\{\text{Faux2(True, } x(2, 34), y(7),$

$x(441, 34), x(419, 34), x(387, 34), x(310, 34), x(233, 34), x(156, 34), x(79, 34), 140),$   
 $\text{Faux2}(\text{True}, y(11, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(8, 1),$   
 $y(7), y(2), 290) \vee \{\text{Faux4}(\text{False}, x(2, 34), x(441, 34), x(419, 34),$   
 $x(387, 34), x(310, 34), x(233, 34), x(156, 34), x(79, 34), 141),$   
 $\text{Faux4}(\text{False}, y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 291)\} \wedge$   
 $\forall_{\{x(2, 35), x(79, 35), x(156, 35), x(233, 35), x(310, 35), x(387, 35), x(419, 35), x(441, 35)\}} (\{\text{Faux2}(\text{True}, x(2, 35), y(7),$   
 $x(441, 35), x(419, 35), x(387, 35), x(310, 35), x(233, 35), x(156, 35), x(79, 35), 140),$   
 $\text{Faux2}(\text{True}, y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(8, 1), y(7), y(2), 301)\} \vee$   
 $\{\text{Faux4}(\text{False}, x(2, 35), x(441, 35), x(419, 35), x(387, 35),$   
 $x(310, 35), x(233, 35), x(156, 35), x(79, 35), 141),$   
 $\text{Faux4}(\text{False}, y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(8, 1), y(7), y(2), 302)\} \wedge$   
 $\forall_{\{x(2, 36), x(79, 36), x(156, 36), x(233, 36), x(310, 36), x(387, 36), x(419, 36), x(441, 36)\}} (\{\text{Faux2}(\text{True}, x(2, 36), y(7),$   
 $x(441, 36), x(419, 36), x(387, 36), x(310, 36), x(233, 36), x(156, 36), x(79, 36), 140),$   
 $\text{Faux2}(\text{True}, y(8, 1), y(7), y(8, 1), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(4), 311)\} \vee$   
 $\{\text{Faux4}(\text{False}, x(2, 36), x(441, 36), x(419, 36), x(387, 36),$   
 $x(310, 36), x(233, 36), x(156, 36), x(79, 36), 141),$   
 $\text{Faux4}(\text{False}, y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(4), 312)\} \wedge$   
 $\forall_{\{x(2, 37), x(79, 37), x(156, 37), x(233, 37), x(310, 37), x(387, 37), x(419, 37), x(441, 37)\}} (\{\text{Faux2}(\text{True}, x(2, 37), y(7),$   
 $x(441, 37), x(419, 37), x(387, 37), x(310, 37), x(233, 37), x(156, 37), x(79, 37), 140),$   
 $\text{Faux2}(\text{True}, y(8, 1), y(7), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 321)\} \vee$   
 $\{\text{Faux4}(\text{False}, x(2, 37), x(441, 37), x(419, 37), x(387, 37),$   
 $x(310, 37), x(233, 37), x(156, 37), x(79, 37), 141),$   
 $\text{Faux4}(\text{False}, y(8, 1), y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 322)\} \wedge$   
 $\forall_{\{x(2, 38), x(79, 38), x(156, 38), x(233, 38), x(310, 38), x(387, 38), x(419, 38), x(441, 38)\}} (\{\text{Faux2}(\text{True}, x(2, 38), y(7),$   
 $x(441, 38), x(419, 38), x(387, 38), x(310, 38), x(233, 38), x(156, 38), x(79, 38), 140),$   
 $\text{Faux2}(\text{True}, y(9, 1), y(7), y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 331)\} \vee$   
 $\{\text{Faux4}(\text{False}, x(2, 38), x(441, 38), x(419, 38), x(387, 38),$   
 $x(310, 38), x(233, 38), x(156, 38), x(79, 38), 141),$   
 $\text{Faux4}(\text{False}, y(9, 1), y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 332)\} \wedge$   
 $\forall_{\{x(2, 39), x(79, 39), x(156, 39), x(233, 39), x(310, 39), x(387, 39), x(419, 39), x(441, 39)\}} (\{\text{Faux2}(\text{True}, x(2, 39), y(7),$   
 $x(441, 39), x(419, 39), x(387, 39), x(310, 39), x(233, 39), x(156, 39), x(79, 39), 140),$   
 $\text{Faux2}(\text{True}, y(8, 1), y(7), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 341)\} \vee$   
 $\{\text{Faux4}(\text{False}, x(2, 39), x(441, 39), x(419, 39), x(387, 39),$   
 $x(310, 39), x(233, 39), x(156, 39), x(79, 39), 141),$   
 $\text{Faux4}(\text{False}, y(8, 1), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 342)\} \wedge$   
 $\forall_{\{x(2, 40), x(79, 40), x(156, 40), x(233, 40), x(310, 40), x(387, 40), x(419, 40), x(441, 40)\}} (\{\text{Faux2}(\text{True}, x(2, 40), y(7),$   
 $x(441, 40), x(419, 40), x(387, 40), x(310, 40), x(233, 40), x(156, 40), x(79, 40), 140),$   
 $\text{Faux2}(\text{True}, y(8, 1), y(7), y(10, 2), y(8, 1), y(8, 1), y(9, 1), y(11, 1),$   
 $y(7), y(5), 356)\} \vee \{\text{Faux4}(\text{False}, x(2, 40), x(441, 40), x(419, 40),$   
 $x(387, 40), x(310, 40), x(233, 40), x(156, 40), x(79, 40), 141),$   
 $\text{Faux4}(\text{False}, y(8, 1), y(10, 2), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 357)\} \wedge$   
 $\forall_{\{x(2, 41), x(79, 41), x(156, 41), x(233, 41), x(310, 41), x(387, 41), x(419, 41), x(441, 41)\}} (\{\text{Faux2}(\text{True}, x(2, 41), y(7),$

$x(441, 41), x(419, 41), x(387, 41), x(310, 41), x(233, 41), x(156, 41), x(79, 41), 140),$   
 $\text{Faux2}(\text{True}, y(8, 1), y(7), y(8, 2), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 370) \vee$   
 $\{\text{Faux4}(\text{False}, x(2, 41), x(441, 41), x(419, 41), x(387, 41),$   
 $x(310, 41), x(233, 41), x(156, 41), x(79, 41), 141),$   
 $\text{Faux4}(\text{False}, y(8, 1), y(8, 2), y(8, 1), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 371)\} \wedge$   
 $\forall_{\{x(2, 42), x(79, 42), x(156, 42), x(233, 42), x(310, 42), x(387, 42), x(419, 42), x(441, 42)\}} (\{\text{Faux2}(\text{True}, x(2, 42), y(7,$   
 $x(441, 42), x(419, 42), x(387, 42), x(310, 42), x(233, 42), x(156, 42), x(79, 42), 140),$   
 $\text{Faux2}(\text{True}, y(10, 1), y(7), y(8, 2), y(9, 1), y(11, 1), y(8, 1), y(8, 1),$   
 $y(7), y(5), 384)\} \vee \{\text{Faux4}(\text{False}, x(2, 42), x(441, 42), x(419, 42),$   
 $x(387, 42), x(310, 42), x(233, 42), x(156, 42), x(79, 42), 141),$   
 $\text{Faux4}(\text{False}, y(10, 1), y(8, 2), y(9, 1), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 385)\} \wedge$   
 $\forall_{\{x(2, 43), x(79, 43), x(156, 43), x(233, 43), x(310, 43), x(387, 43), x(419, 43), x(441, 43)\}} (\{\text{Faux2}(\text{True}, x(2, 43), y(7,$   
 $x(441, 43), x(419, 43), x(387, 43), x(310, 43), x(233, 43), x(156, 43), x(79, 43), 140),$   
 $\text{Faux2}(\text{True}, y(8, 1), y(7), y(9, 2), y(11, 1), y(8, 1), y(8, 1), y(10, 1),$   
 $y(7), y(6), 398)\} \vee \{\text{Faux4}(\text{False}, x(2, 43), x(441, 43), x(419, 43),$   
 $x(387, 43), x(310, 43), x(233, 43), x(156, 43), x(79, 43), 141),$   
 $\text{Faux4}(\text{False}, y(8, 1), y(9, 2), y(11, 1), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 399)\} \wedge$   
 $\forall_{\{x(2, 44), x(79, 44), x(156, 44), x(233, 44), x(310, 44), x(387, 44), x(419, 44), x(441, 44)\}} (\{\text{Faux2}(\text{True}, x(2, 44), y(7,$   
 $x(441, 44), x(419, 44), x(387, 44), x(310, 44), x(233, 44), x(156, 44), x(79, 44), 140),$   
 $\text{Faux2}(\text{True}, y(8, 1), y(7), y(11, 2), y(8, 1), y(8, 1), y(10, 1), y(11, 1),$   
 $y(7), y(5), 413)\} \vee \{\text{Faux4}(\text{False}, x(2, 44), x(441, 44), x(419, 44),$   
 $x(387, 44), x(310, 44), x(233, 44), x(156, 44), x(79, 44), 141),$   
 $\text{Faux4}(\text{False}, y(8, 1), y(11, 2), y(8, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 414)\} \wedge$   
 $\forall_{\{x(2, 45), x(79, 45), x(156, 45), x(233, 45), x(310, 45), x(387, 45), x(419, 45), x(441, 45)\}} (\{\text{Faux2}(\text{True}, x(2, 45), y(7,$   
 $x(441, 45), x(419, 45), x(387, 45), x(310, 45), x(233, 45), x(156, 45), x(79, 45), 140),$   
 $\text{Faux2}(\text{True}, y(9, 1), y(7), y(8, 2), y(8, 1), y(10, 1), y(11, 1), y(8, 1),$   
 $y(7), y(5), 427)\} \vee \{\text{Faux4}(\text{False}, x(2, 45), x(441, 45), x(419, 45),$   
 $x(387, 45), x(310, 45), x(233, 45), x(156, 45), x(79, 45), 141),$   
 $\text{Faux4}(\text{False}, y(9, 1), y(8, 2), y(8, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 428)\} \wedge$   
 $\forall_{\{x(2, 46), x(79, 46), x(156, 46), x(233, 46), x(310, 46), x(387, 46), x(419, 46), x(441, 46)\}} (\{\text{Faux2}(\text{True}, x(2, 46), y(7,$   
 $x(441, 46), x(419, 46), x(387, 46), x(310, 46), x(233, 46), x(156, 46), x(79, 46), 140),$   
 $\text{Faux2}(\text{True}, y(11, 1), y(7), y(8, 2), y(10, 1), y(11, 1), y(8, 1), y(9, 1),$   
 $y(7), y(6), 441)\} \vee \{\text{Faux4}(\text{False}, x(2, 46), x(441, 46), x(419, 46),$   
 $x(387, 46), x(310, 46), x(233, 46), x(156, 46), x(79, 46), 141),$   
 $\text{Faux4}(\text{False}, y(11, 1), y(8, 2), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 442)\} \wedge$   
 $\forall_{\{x(2, 47), x(79, 47), x(156, 47), x(233, 47), x(310, 47), x(387, 47), x(419, 47), x(441, 47)\}} (\{\text{Faux2}(\text{True}, x(2, 47), y(7,$   
 $x(441, 47), x(419, 47), x(387, 47), x(310, 47), x(233, 47), x(156, 47), x(79, 47), 140),$   
 $\text{Faux2}(\text{True}, y(8, 1), y(7), y(10, 2), y(11, 1), y(8, 1), y(9, 1), y(11, 1),$   
 $y(7), y(6), 455)\} \vee \{\text{Faux4}(\text{False}, x(2, 47), x(441, 47), x(419, 47),$   
 $x(387, 47), x(310, 47), x(233, 47), x(156, 47), x(79, 47), 141),$   
 $\text{Faux4}(\text{False}, y(8, 1), y(10, 2), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 456)\} \wedge$   
 $\forall_{\{x(2, 48), x(79, 48), x(156, 48), x(233, 48), x(310, 48), x(387, 48), x(419, 48), x(441, 48)\}} (\{\text{Faux2}(\text{True}, x(2, 48), y(7,$

$x(441, 48), x(419, 48), x(387, 48), x(310, 48), x(233, 48), x(156, 48), x(79, 48), 140),$   
 $\text{Faux2}(\text{True}, y(8, 1), y(7), y(11, 2), y(8, 1), y(9, 1), y(11, 1), y(11, 1),$   
 $y(7), y(5), 470) \vee \{\text{Faux4}(\text{False}, x(2, 48), x(441, 48), x(419, 48),$   
 $x(387, 48), x(310, 48), x(233, 48), x(156, 48), x(79, 48), 141),$   
 $\text{Faux4}(\text{False}, y(8, 1), y(11, 2), y(8, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 471)\} \wedge$   
 $\forall_{\{x(2, 49), x(79, 49), x(156, 49), x(233, 49), x(310, 49), x(387, 49), x(419, 49), x(441, 49)\}} (\{\text{Faux2}(\text{True}, x(2, 49), y(7,$   
 $x(441, 49), x(419, 49), x(387, 49), x(310, 49), x(233, 49), x(156, 49), x(79, 49), 140),$   
 $\text{Faux2}(\text{True}, y(10, 1), y(7), y(8, 2), y(9, 1), y(11, 1), y(11, 1), y(8, 1),$   
 $y(7), y(5), 484) \vee \{\text{Faux4}(\text{False}, x(2, 49), x(441, 49), x(419, 49),$   
 $x(387, 49), x(310, 49), x(233, 49), x(156, 49), x(79, 49), 141),$   
 $\text{Faux4}(\text{False}, y(10, 1), y(8, 2), y(9, 1), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 485)\} \wedge$   
 $\forall_{\{x(2, 50), x(79, 50), x(156, 50), x(233, 50), x(310, 50), x(387, 50), x(419, 50), x(441, 50)\}} (\{\text{Faux2}(\text{True}, x(2, 50), y(7,$   
 $x(441, 50), x(419, 50), x(387, 50), x(310, 50), x(233, 50), x(156, 50), x(79, 50), 140),$   
 $\text{Faux2}(\text{True}, y(11, 1), y(7), y(9, 2), y(11, 1), y(11, 1), y(8, 1), y(10, 1),$   
 $y(7), y(6), 498) \vee \{\text{Faux4}(\text{False}, x(2, 50), x(441, 50), x(419, 50),$   
 $x(387, 50), x(310, 50), x(233, 50), x(156, 50), x(79, 50), 141),$   
 $\text{Faux4}(\text{False}, y(11, 1), y(9, 2), y(11, 1), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 499)\} \wedge$   
 $\forall_{\{x(2, 51), x(79, 51), x(156, 51), x(233, 51), x(310, 51), x(387, 51), x(419, 51), x(441, 51)\}} (\{\text{Faux2}(\text{True}, x(2, 51), y(7,$   
 $x(441, 51), x(419, 51), x(387, 51), x(310, 51), x(233, 51), x(156, 51), x(79, 51), 140),$   
 $\text{Faux2}(\text{True}, y(8, 1), y(7), y(11, 2), y(11, 1), y(8, 1), y(10, 1), y(11, 1),$   
 $y(7), y(6), 512) \vee \{\text{Faux4}(\text{False}, x(2, 51), x(441, 51), x(419, 51),$   
 $x(387, 51), x(310, 51), x(233, 51), x(156, 51), x(79, 51), 141),$   
 $\text{Faux4}(\text{False}, y(8, 1), y(11, 2), y(11, 1), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 513)\} \wedge$   
 $\forall_{\{x(2, 52), x(79, 52), x(156, 52), x(233, 52), x(310, 52), x(387, 52), x(419, 52), x(441, 52)\}} (\{\text{Faux2}(\text{True}, x(2, 52), y(7,$   
 $x(441, 52), x(419, 52), x(387, 52), x(310, 52), x(233, 52), x(156, 52), x(79, 52), 140),$   
 $\text{Faux2}(\text{True}, y(9, 1), y(7), y(11, 2), y(8, 1), y(10, 1), y(11, 1), y(11, 1),$   
 $y(7), y(5), 527) \vee \{\text{Faux4}(\text{False}, x(2, 52), x(441, 52), x(419, 52),$   
 $x(387, 52), x(310, 52), x(233, 52), x(156, 52), x(79, 52), 141),$   
 $\text{Faux4}(\text{False}, y(9, 1), y(11, 2), y(8, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 528)\} \wedge$   
 $\forall_{\{x(2, 53), x(79, 53), x(156, 53), x(233, 53), x(310, 53), x(387, 53), x(419, 53), x(441, 53)\}} (\{\text{Faux2}(\text{True}, x(2, 53), y(7,$   
 $x(441, 53), x(419, 53), x(387, 53), x(310, 53), x(233, 53), x(156, 53), x(79, 53), 140),$   
 $\text{Faux2}(\text{True}, y(11, 1), y(7), y(8, 2), y(10, 1), y(11, 1), y(11, 1), y(9, 1),$   
 $y(7), y(6), 541) \vee \{\text{Faux4}(\text{False}, x(2, 53), x(441, 53), x(419, 53),$   
 $x(387, 53), x(310, 53), x(233, 53), x(156, 53), x(79, 53), 141),$   
 $\text{Faux4}(\text{False}, y(11, 1), y(8, 2), y(10, 1), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 542)\} \wedge$   
 $\forall_{\{x(2, 54), x(79, 54), x(156, 54), x(233, 54), x(310, 54), x(387, 54), x(419, 54), x(441, 54)\}} (\{\text{Faux2}(\text{True}, x(2, 54), y(7,$   
 $x(441, 54), x(419, 54), x(387, 54), x(310, 54), x(233, 54), x(156, 54), x(79, 54), 140),$   
 $\text{Faux2}(\text{True}, y(11, 1), y(7), y(10, 2), y(11, 1), y(11, 1), y(9, 1), y(11, 1),$   
 $y(7), y(6), 555) \vee \{\text{Faux4}(\text{False}, x(2, 54), x(441, 54), x(419, 54), x(387, 54),$   
 $x(310, 54), x(233, 54), x(156, 54), x(79, 54), 141), \text{Faux4}(\text{False}, y(11, 1),$   
 $y(10, 2), y(11, 1), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 556)\} \wedge$   
 $\forall_{\{x(2, 55), x(79, 55), x(156, 55), x(233, 55), x(310, 55), x(387, 55), x(419, 55), x(441, 55)\}} (\{\text{Faux2}(\text{True}, x(2, 55), y(7),$

$x(441, 55), x(419, 55), x(387, 55), x(310, 55), x(233, 55), x(156, 55), x(79, 55), 140),$   
 $\text{Faux2}(\text{True}, y(8, 1), y(7), y(11, 2), y(11, 1), y(9, 1), y(11, 1), y(11, 1),$   
 $y(7), y(6), 569)\} \vee \{\text{Faux4}(\text{False}, x(2, 55), x(441, 55), x(419, 55),$   
 $x(387, 55), x(310, 55), x(233, 55), x(156, 55), x(79, 55), 141),$   
 $\text{Faux4}(\text{False}, y(8, 1), y(11, 2), y(11, 1), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 570)\} \wedge$   
 $\forall_{\{x(2, 56), x(79, 56), x(156, 56), x(233, 56), x(310, 56), x(387, 56), x(419, 56), x(441, 56)\}} (\{\text{Faux2}(\text{True}, x(2, 56), y(7),$   
 $x(441, 56), x(419, 56), x(387, 56), x(310, 56), x(233, 56), x(156, 56), x(79, 56), 140),$   
 $\text{Faux2}(\text{True}, y(10, 1), y(7), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(11, 1),$   
 $y(7), y(5), 584)\} \vee \{\text{Faux4}(\text{False}, x(2, 56), x(441, 56), x(419, 56), x(387, 56),$   
 $x(310, 56), x(233, 56), x(156, 56), x(79, 56), 141), \text{Faux4}(\text{False}, y(10, 1),$   
 $y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 585)\} \wedge$   
 $\forall_{\{x(2, 57), x(79, 57), x(156, 57), x(233, 57), x(310, 57), x(387, 57), x(419, 57), x(441, 57)\}} (\{\text{Faux2}(\text{True}, x(2, 57), y(7),$   
 $x(441, 57), x(419, 57), x(387, 57), x(310, 57), x(233, 57), x(156, 57), x(79, 57), 140),$   
 $\text{Faux2}(\text{True}, y(11, 1), y(7), y(9, 2), y(11, 1), y(11, 1), y(11, 1), y(10, 1),$   
 $y(7), y(6), 598)\} \vee \{\text{Faux4}(\text{False}, x(2, 57), x(441, 57), x(419, 57), x(387, 57),$   
 $x(310, 57), x(233, 57), x(156, 57), x(79, 57), 141), \text{Faux4}(\text{False}, y(11, 1),$   
 $y(9, 2), y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 599)\} \wedge$   
 $\forall_{\{x(2, 58), x(79, 58), x(156, 58), x(233, 58), x(310, 58), x(387, 58), x(419, 58), x(441, 58)\}} (\{\text{Faux2}(\text{True}, x(2, 58), y(7),$   
 $x(441, 58), x(419, 58), x(387, 58), x(310, 58), x(233, 58), x(156, 58), x(79, 58), 140),$   
 $\text{Faux2}(\text{True}, y(11, 1), y(7), y(11, 2), y(11, 1), y(11, 1), y(10, 1), y(11, 1),$   
 $y(7), y(6), 612)\} \vee \{\text{Faux4}(\text{False}, x(2, 58), x(441, 58), x(419, 58), x(387, 58),$   
 $x(310, 58), x(233, 58), x(156, 58), x(79, 58), 141), \text{Faux4}(\text{False}, y(11, 1),$   
 $y(11, 2), y(11, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 613)\} \wedge$   
 $\forall_{\{x(2, 59), x(79, 59), x(156, 59), x(233, 59), x(310, 59), x(387, 59), x(419, 59), x(441, 59)\}} (\{\text{Faux2}(\text{True}, x(2, 59), y(7),$   
 $x(441, 59), x(419, 59), x(387, 59), x(310, 59), x(233, 59), x(156, 59), x(79, 59), 140),$   
 $\text{Faux2}(\text{True}, y(9, 1), y(7), y(11, 2), y(11, 1), y(10, 1), y(11, 1), y(11, 1),$   
 $y(7), y(6), 626)\} \vee \{\text{Faux4}(\text{False}, x(2, 59), x(441, 59), x(419, 59), x(387, 59),$   
 $x(310, 59), x(233, 59), x(156, 59), x(79, 59), 141), \text{Faux4}(\text{False}, y(9, 1),$   
 $y(11, 2), y(11, 1), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 627)\} \wedge$   
 $\forall_{\{x(3, 1), x(80, 1), x(157, 1), x(234, 1), x(311, 1), x(388, 1), x(420, 1)\}} (\{\text{Faux4}(\text{True}, x(3, 1), y(7),$   
 $x(420, 1), x(388, 1), x(311, 1), x(234, 1), x(157, 1), x(80, 1), 142),$   
 $\text{Faux4}(\text{True}, y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 7)\} \vee$   
 $\{\text{Faux6}(\text{False}, x(3, 1), x(420, 1), x(388, 1), x(311, 1), x(234, 1), x(157, 1), x(80, 1),$   
 $143), \text{Faux6}(\text{False}, y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 8)\} \wedge$   
 $\forall_{\{x(3, 2), x(80, 2), x(157, 2), x(234, 2), x(311, 2), x(388, 2), x(420, 2)\}} (\{\text{Faux4}(\text{True}, x(3, 2), y(7),$   
 $x(420, 2), x(388, 2), x(311, 2), x(234, 2), x(157, 2), x(80, 2), 142),$   
 $\text{Faux4}(\text{True}, y(8, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(6), 13)\} \vee$   
 $\{\text{Faux6}(\text{False}, x(3, 2), x(420, 2), x(388, 2), x(311, 2), x(234, 2), x(157, 2), x(80, 2),$   
 $143), \text{Faux6}(\text{False}, y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(6), 14)\} \wedge$   
 $\forall_{\{x(3, 3), x(80, 3), x(157, 3), x(234, 3), x(311, 3), x(388, 3), x(420, 3)\}} (\{\text{Faux4}(\text{True}, x(3, 3), y(7),$   
 $x(420, 3), x(388, 3), x(311, 3), x(234, 3), x(157, 3), x(80, 3), 142),$   
 $\text{Faux4}(\text{True}, y(8, 1), y(7), y(9, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(5), 20)\} \vee$

```

{Faux6(False, x(3, 3), x(420, 3), x(388, 3), x(311, 3), x(234, 3), x(157, 3), x(80, 3),
  143), Faux6(False, y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(5), 21)}) \wedge
\forall_{\{x(3,4),x(80,4),x(157,4),x(234,4),x(311,4),x(388,4),x(420,4)\}} (\{Faux4(True, x(3, 4), y(7),
  x(420, 4), x(388, 4), x(311, 4), x(234, 4), x(157, 4), x(80, 4), 142),
  Faux4(True, y(9, 1), y(7), y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 26)\}) \vee
\{Faux6(False, x(3, 4), x(420, 4), x(388, 4), x(311, 4), x(234, 4), x(157, 4), x(80, 4),
  143), Faux6(False, y(9, 1), y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 27)\}) \wedge
\forall_{\{x(3,5),x(80,5),x(157,5),x(234,5),x(311,5),x(388,5),x(420,5)\}} (\{Faux4(True, x(3, 5), y(7),
  x(420, 5), x(388, 5), x(311, 5), x(234, 5), x(157, 5), x(80, 5), 142),
  Faux4(True, y(11, 1), y(7), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 32)\}) \vee
\{Faux6(False, x(3, 5), x(420, 5), x(388, 5), x(311, 5), x(234, 5), x(157, 5), x(80, 5),
  143), Faux6(False, y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 33)\}) \wedge
\forall_{\{x(3,6),x(80,6),x(157,6),x(234,6),x(311,6),x(388,6),x(420,6)\}} (\{Faux4(True, x(3, 6), y(7),
  x(420, 6), x(388, 6), x(311, 6), x(234, 6), x(157, 6), x(80, 6), 142),
  Faux4(True, y(10, 1), y(7), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 38)\}) \vee
\{Faux6(False, x(3, 6), x(420, 6), x(388, 6), x(311, 6), x(234, 6), x(157, 6), x(80, 6),
  143), Faux6(False, y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 39)\}) \wedge
\forall_{\{x(3,7),x(80,7),x(157,7),x(234,7),x(311,7),x(388,7),x(420,7)\}} (\{Faux4(True, x(3, 7), y(7),
  x(420, 7), x(388, 7), x(311, 7), x(234, 7), x(157, 7), x(80, 7), 142),
  Faux4(True, y(11, 1), y(7), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(2), 44)\}) \vee
\{Faux6(False, x(3, 7), x(420, 7), x(388, 7), x(311, 7), x(234, 7), x(157, 7), x(80, 7),
  143), Faux6(False, y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(2), 45)\}) \wedge
\forall_{\{x(3,8),x(80,8),x(157,8),x(234,8),x(311,8),x(388,8),x(420,8)\}} (\{Faux4(True, x(3, 8), y(7),
  x(420, 8), x(388, 8), x(311, 8), x(234, 8), x(157, 8), x(80, 8), 142),
  Faux4(True, y(8, 1), y(7), y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 51)\}) \vee
\{Faux6(False, x(3, 8), x(420, 8), x(388, 8), x(311, 8), x(234, 8), x(157, 8), x(80, 8),
  143), Faux6(False, y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 52)\}) \wedge
\forall_{\{x(3,9),x(80,9),x(157,9),x(234,9),x(311,9),x(388,9),x(420,9)\}} (\{Faux4(True, x(3, 9), y(7),
  x(420, 9), x(388, 9), x(311, 9), x(234, 9), x(157, 9), x(80, 9), 142),
  Faux4(True, y(9, 1), y(7), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 57)\}) \vee
\{Faux6(False, x(3, 9), x(420, 9), x(388, 9), x(311, 9), x(234, 9), x(157, 9), x(80, 9),
  143), Faux6(False, y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 58)\}) \wedge
\forall_{\{x(3,10),x(80,10),x(157,10),x(234,10),x(311,10),x(388,10),x(420,10)\}} (\{Faux4(True, x(3, 10), y(7),
  x(420, 10), x(388, 10), x(311, 10), x(234, 10), x(157, 10), x(80, 10), 142),
  Faux4(True, y(11, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 63)\}) \vee
\{Faux6(False, x(3, 10), x(420, 10), x(388, 10), x(311, 10),
  x(234, 10), x(157, 10), x(80, 10), 143),
  Faux6(False, y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 64)\}) \wedge
\forall_{\{x(3,11),x(80,11),x(157,11),x(234,11),x(311,11),x(388,11),x(420,11)\}} (\{Faux4(True, x(3, 11), y(7),
  x(420, 11), x(388, 11), x(311, 11), x(234, 11), x(157, 11), x(80, 11), 142),
  Faux4(True, y(10, 1), y(7), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 70)\}) \vee
\{Faux6(False, x(3, 11), x(420, 11), x(388, 11), x(311, 11),

```

$x(234, 11), x(157, 11), x(80, 11), 143),$   
 $\text{Faux6(False, } y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 71)\}) \wedge$   
 $\forall_{\{x(3, 12), x(80, 12), x(157, 12), x(234, 12), x(311, 12), x(388, 12), x(420, 12)\}} (\{\text{Faux4(True, } x(3, 12), y(7),$   
 $x(420, 12), x(388, 12), x(311, 12), x(234, 12), x(157, 12), x(80, 12), 142),$   
 $\text{Faux4(True, } y(8, 1), y(7), y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(7), y(4), 76)\} \vee$   
 $\{\text{Faux6(False, } x(3, 12), x(420, 12), x(388, 12), x(311, 12),$   
 $x(234, 12), x(157, 12), x(80, 12), 143),$   
 $\text{Faux6(False, } y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(7), y(4), 77)\} \wedge$   
 $\forall_{\{x(3, 13), x(80, 13), x(157, 13), x(234, 13), x(311, 13), x(388, 13), x(420, 13)\}} (\{\text{Faux4(True, } x(3, 13), y(7),$   
 $x(420, 13), x(388, 13), x(311, 13), x(234, 13), x(157, 13), x(80, 13), 142),$   
 $\text{Faux4(True, } y(8, 1), y(7), y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 82)\} \vee$   
 $\{\text{Faux6(False, } x(3, 13), x(420, 13), x(388, 13), x(311, 13),$   
 $x(234, 13), x(157, 13), x(80, 13), 143),$   
 $\text{Faux6(False, } y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 83)\} \wedge$   
 $\forall_{\{x(3, 14), x(80, 14), x(157, 14), x(234, 14), x(311, 14), x(388, 14), x(420, 14)\}} (\{\text{Faux4(True, } x(3, 14), y(7),$   
 $x(420, 14), x(388, 14), x(311, 14), x(234, 14), x(157, 14), x(80, 14), 142),$   
 $\text{Faux4(True, } y(9, 1), y(7), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 88)\} \vee$   
 $\{\text{Faux6(False, } x(3, 14), x(420, 14), x(388, 14), x(311, 14),$   
 $x(234, 14), x(157, 14), x(80, 14), 143),$   
 $\text{Faux6(False, } y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 89)\} \wedge$   
 $\forall_{\{x(3, 15), x(80, 15), x(157, 15), x(234, 15), x(311, 15), x(388, 15), x(420, 15)\}} (\{\text{Faux4(True, } x(3, 15), y(7),$   
 $x(420, 15), x(388, 15), x(311, 15), x(234, 15), x(157, 15), x(80, 15), 142),$   
 $\text{Faux4(True, } y(8, 1), y(7), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 94)\} \vee$   
 $\{\text{Faux6(False, } x(3, 15), x(420, 15), x(388, 15), x(311, 15),$   
 $x(234, 15), x(157, 15), x(80, 15), 143),$   
 $\text{Faux6(False, } y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 95)\} \wedge$   
 $\forall_{\{x(3, 16), x(80, 16), x(157, 16), x(234, 16), x(311, 16), x(388, 16), x(420, 16)\}} (\{\text{Faux4(True, } x(3, 16), y(7),$   
 $x(420, 16), x(388, 16), x(311, 16), x(234, 16), x(157, 16), x(80, 16), 142),$   
 $\text{Faux4(True, } y(8, 1), y(7), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 107)\} \vee$   
 $\{\text{Faux6(False, } x(3, 16), x(420, 16), x(388, 16), x(311, 16),$   
 $x(234, 16), x(157, 16), x(80, 16), 143),$   
 $\text{Faux6(False, } y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 108)\} \wedge$   
 $\forall_{\{x(3, 17), x(80, 17), x(157, 17), x(234, 17), x(311, 17), x(388, 17), x(420, 17)\}} (\{\text{Faux4(True, } x(3, 17), y(7),$   
 $x(420, 17), x(388, 17), x(311, 17), x(234, 17), x(157, 17), x(80, 17), 142),$   
 $\text{Faux4(True, } y(10, 1), y(7), y(8, 2), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 117)\} \vee$   
 $\{\text{Faux6(False, } x(3, 17), x(420, 17), x(388, 17), x(311, 17),$   
 $x(234, 17), x(157, 17), x(80, 17), 143),$   
 $\text{Faux6(False, } y(10, 1), y(8, 2), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 118)\} \wedge$   
 $\forall_{\{x(3, 18), x(80, 18), x(157, 18), x(234, 18), x(311, 18), x(388, 18), x(420, 18)\}} (\{\text{Faux4(True, } x(3, 18), y(7),$   
 $x(420, 18), x(388, 18), x(311, 18), x(234, 18), x(157, 18), x(80, 18), 142),$   
 $\text{Faux4(True, } y(8, 1), y(7), y(8, 2), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 127)\} \vee$   
 $\{\text{Faux6(False, } x(3, 18), x(420, 18), x(388, 18), x(311, 18),$

```

x(234, 18), x(157, 18), x(80, 18), 143),
Faux6(False, y(8, 1), y(8, 2), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 128})} \wedge
\forall_{\{x(3,19),x(80,19),x(157,19),x(234,19),x(311,19),x(388,19),x(420,19)\}} (\{Faux4(True, x(3, 19), y(7),
x(420, 19), x(388, 19), x(311, 19), x(234, 19), x(157, 19), x(80, 19), 142),
Faux4(True, y(8, 1), y(7), y(9, 2), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 138}\} \vee
{Faux6(False, x(3, 19), x(420, 19), x(388, 19), x(311, 19),
x(234, 19), x(157, 19), x(80, 19), 143),
Faux6(False, y(8, 1), y(9, 2), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 139})} \wedge
\forall_{\{x(3,20),x(80,20),x(157,20),x(234,20),x(311,20),x(388,20),x(420,20)\}} (\{Faux4(True, x(3, 20), y(7),
x(420, 20), x(388, 20), x(311, 20), x(234, 20), x(157, 20), x(80, 20), 142),
Faux4(True, y(9, 1), y(7), y(11, 2), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 148}\} \vee
{Faux6(False, x(3, 20), x(420, 20), x(388, 20), x(311, 20),
x(234, 20), x(157, 20), x(80, 20), 143),
Faux6(False, y(9, 1), y(11, 2), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 149})} \wedge
\forall_{\{x(3,21),x(80,21),x(157,21),x(234,21),x(311,21),x(388,21),x(420,21)\}} (\{Faux4(True, x(3, 21), y(7),
x(420, 21), x(388, 21), x(311, 21), x(234, 21), x(157, 21), x(80, 21), 142),
Faux4(True, y(11, 1), y(7), y(8, 2), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 158}\} \vee
{Faux6(False, x(3, 21), x(420, 21), x(388, 21), x(311, 21),
x(234, 21), x(157, 21), x(80, 21), 143),
Faux6(False, y(11, 1), y(8, 2), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 159})} \wedge
\forall_{\{x(3,22),x(80,22),x(157,22),x(234,22),x(311,22),x(388,22),x(420,22)\}} (\{Faux4(True, x(3, 22), y(7),
x(420, 22), x(388, 22), x(311, 22), x(234, 22), x(157, 22), x(80, 22), 142),
Faux4(True, y(8, 1), y(7), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 168}\} \vee
{Faux6(False, x(3, 22), x(420, 22), x(388, 22), x(311, 22),
x(234, 22), x(157, 22), x(80, 22), 143),
Faux6(False, y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 169})} \wedge
\forall_{\{x(3,23),x(80,23),x(157,23),x(234,23),x(311,23),x(388,23),x(420,23)\}} (\{Faux4(True, x(3, 23), y(7),
x(420, 23), x(388, 23), x(311, 23), x(234, 23), x(157, 23), x(80, 23), 142),
Faux4(True, y(10, 1), y(7), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 179}\} \vee
{Faux6(False, x(3, 23), x(420, 23), x(388, 23), x(311, 23),
x(234, 23), x(157, 23), x(80, 23), 143),
Faux6(False, y(10, 1), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 180})} \wedge
\forall_{\{x(3,24),x(80,24),x(157,24),x(234,24),x(311,24),x(388,24),x(420,24)\}} (\{Faux4(True, x(3, 24), y(7),
x(420, 24), x(388, 24), x(311, 24), x(234, 24), x(157, 24), x(80, 24), 142),
Faux4(True, y(11, 1), y(7), y(8, 2), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 189}\} \vee
{Faux6(False, x(3, 24), x(420, 24), x(388, 24), x(311, 24),
x(234, 24), x(157, 24), x(80, 24), 143),
Faux6(False, y(11, 1), y(8, 2), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 190})} \wedge
\forall_{\{x(3,25),x(80,25),x(157,25),x(234,25),x(311,25),x(388,25),x(420,25)\}} (\{Faux4(True, x(3, 25), y(7),
x(420, 25), x(388, 25), x(311, 25), x(234, 25), x(157, 25), x(80, 25), 142),
Faux4(True, y(8, 1), y(7), y(9, 2), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 199}\} \vee
{Faux6(False, x(3, 25), x(420, 25), x(388, 25), x(311, 25),

```

$x(234, 25), x(157, 25), x(80, 25), 143),$   
 $\text{Faux6(False, } y(8, 1), y(9, 2), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 200)\}) \wedge$   
 $\forall_{\{x(3, 26), x(80, 26), x(157, 26), x(234, 26), x(311, 26), x(388, 26), x(420, 26)\}} (\{\text{Faux4(True, } x(3, 26), y(7),$   
 $x(420, 26), x(388, 26), x(311, 26), x(234, 26), x(157, 26), x(80, 26), 142),$   
 $\text{Faux4(True, } y(9, 1), y(7), y(11, 2), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 210)\} \vee$   
 $\{\text{Faux6(False, } x(3, 26), x(420, 26), x(388, 26), x(311, 26),$   
 $x(234, 26), x(157, 26), x(80, 26), 143),$   
 $\text{Faux6(False, } y(9, 1), y(11, 2), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 211)\} \wedge$   
 $\forall_{\{x(3, 27), x(80, 27), x(157, 27), x(234, 27), x(311, 27), x(388, 27), x(420, 27)\}} (\{\text{Faux4(True, } x(3, 27), y(7),$   
 $x(420, 27), x(388, 27), x(311, 27), x(234, 27), x(157, 27), x(80, 27), 142),$   
 $\text{Faux4(True, } y(11, 1), y(7), y(11, 2), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 220)\} \vee$   
 $\{\text{Faux6(False, } x(3, 27), x(420, 27), x(388, 27), x(311, 27),$   
 $x(234, 27), x(157, 27), x(80, 27), 143),$   
 $\text{Faux6(False, } y(11, 1), y(11, 2), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 221)\} \wedge$   
 $\forall_{\{x(3, 28), x(80, 28), x(157, 28), x(234, 28), x(311, 28), x(388, 28), x(420, 28)\}} (\{\text{Faux4(True, } x(3, 28), y(7),$   
 $x(420, 28), x(388, 28), x(311, 28), x(234, 28), x(157, 28), x(80, 28), 142),$   
 $\text{Faux4(True, } y(11, 1), y(7), y(10, 2), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 230)\} \vee$   
 $\{\text{Faux6(False, } x(3, 28), x(420, 28), x(388, 28), x(311, 28),$   
 $x(234, 28), x(157, 28), x(80, 28), 143),$   
 $\text{Faux6(False, } y(11, 1), y(10, 2), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 231)\} \wedge$   
 $\forall_{\{x(3, 29), x(80, 29), x(157, 29), x(234, 29), x(311, 29), x(388, 29), x(420, 29)\}} (\{\text{Faux4(True, } x(3, 29), y(7),$   
 $x(420, 29), x(388, 29), x(311, 29), x(234, 29), x(157, 29), x(80, 29), 142),$   
 $\text{Faux4(True, } y(10, 1), y(7), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 240)\} \vee$   
 $\{\text{Faux6(False, } x(3, 29), x(420, 29), x(388, 29), x(311, 29),$   
 $x(234, 29), x(157, 29), x(80, 29), 143),$   
 $\text{Faux6(False, } y(10, 1), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 241)\} \wedge$   
 $\forall_{\{x(3, 30), x(80, 30), x(157, 30), x(234, 30), x(311, 30), x(388, 30), x(420, 30)\}} (\{\text{Faux4(True, } x(3, 30), y(7),$   
 $x(420, 30), x(388, 30), x(311, 30), x(234, 30), x(157, 30), x(80, 30), 142),$   
 $\text{Faux4(True, } y(11, 1), y(7), y(11, 2), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 250)\} \vee$   
 $\{\text{Faux6(False, } x(3, 30), x(420, 30), x(388, 30), x(311, 30),$   
 $x(234, 30), x(157, 30), x(80, 30), 143),$   
 $\text{Faux6(False, } y(11, 1), y(11, 2), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 251)\} \wedge$   
 $\forall_{\{x(3, 31), x(80, 31), x(157, 31), x(234, 31), x(311, 31), x(388, 31), x(420, 31)\}} (\{\text{Faux4(True, } x(3, 31), y(7),$   
 $x(420, 31), x(388, 31), x(311, 31), x(234, 31), x(157, 31), x(80, 31), 142),$   
 $\text{Faux4(True, } y(11, 1), y(7), y(9, 2), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 261)\} \vee$   
 $\{\text{Faux6(False, } x(3, 31), x(420, 31), x(388, 31), x(311, 31),$   
 $x(234, 31), x(157, 31), x(80, 31), 143),$   
 $\text{Faux6(False, } y(11, 1), y(9, 2), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 262)\} \wedge$   
 $\forall_{\{x(3, 32), x(80, 32), x(157, 32), x(234, 32), x(311, 32), x(388, 32), x(420, 32)\}} (\{\text{Faux4(True, } x(3, 32), y(7),$   
 $x(420, 32), x(388, 32), x(311, 32), x(234, 32), x(157, 32), x(80, 32), 142),$   
 $\text{Faux4(True, } y(9, 1), y(7), y(11, 2), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 272)\} \vee$   
 $\{\text{Faux6(False, } x(3, 32), x(420, 32), x(388, 32), x(311, 32),$

$x(234, 32), x(157, 32), x(80, 32), 143),$   
 $\text{Faux6(False, } y(9, 1), y(11, 2), y(10, 1), y(8, 1), y(8, 1), y(7, y(2), 273)\}) \wedge$   
 $\forall_{\{x(3, 33), x(80, 33), x(157, 33), x(234, 33), x(311, 33), x(388, 33), x(420, 33)\}} (\{\text{Faux4(True, } x(3, 33), y(7,$   
 $x(420, 33), x(388, 33), x(311, 33), x(234, 33), x(157, 33), x(80, 33), 142),$   
 $\text{Faux4(True, } y(11, 1), y(7, y(11, 2), y(8, 1), y(8, 1), y(9, 1), y(7, y(2), 282)\}) \vee$   
 $\{\text{Faux6(False, } x(3, 33), x(420, 33), x(388, 33), x(311, 33),$   
 $x(234, 33), x(157, 33), x(80, 33), 143),$   
 $\text{Faux6(False, } y(11, 1), y(11, 2), y(8, 1), y(8, 1), y(9, 1), y(7, y(2), 283)\}) \wedge$   
 $\forall_{\{x(3, 34), x(80, 34), x(157, 34), x(234, 34), x(311, 34), x(388, 34), x(420, 34)\}} (\{\text{Faux4(True, } x(3, 34), y(7,$   
 $x(420, 34), x(388, 34), x(311, 34), x(234, 34), x(157, 34), x(80, 34), 142),$   
 $\text{Faux4(True, } y(11, 1), y(7, y(10, 2), y(8, 1), y(9, 1), y(8, 1), y(7, y(2), 293)\}) \vee$   
 $\{\text{Faux6(False, } x(3, 34), x(420, 34), x(388, 34), x(311, 34),$   
 $x(234, 34), x(157, 34), x(80, 34), 143),$   
 $\text{Faux6(False, } y(11, 1), y(10, 2), y(8, 1), y(9, 1), y(8, 1), y(7, y(2), 294)\}) \wedge$   
 $\forall_{\{x(3, 35), x(80, 35), x(157, 35), x(234, 35), x(311, 35), x(388, 35), x(420, 35)\}} (\{\text{Faux4(True, } x(3, 35), y(7,$   
 $x(420, 35), x(388, 35), x(311, 35), x(234, 35), x(157, 35), x(80, 35), 142),$   
 $\text{Faux4(True, } y(10, 1), y(7, y(8, 2), y(9, 1), y(8, 1), y(8, 1), y(7, y(2), 304)\}) \vee$   
 $\{\text{Faux6(False, } x(3, 35), x(420, 35), x(388, 35), x(311, 35),$   
 $x(234, 35), x(157, 35), x(80, 35), 143),$   
 $\text{Faux6(False, } y(10, 1), y(8, 2), y(9, 1), y(8, 1), y(8, 1), y(7, y(2), 305)\}) \wedge$   
 $\forall_{\{x(3, 36), x(80, 36), x(157, 36), x(234, 36), x(311, 36), x(388, 36), x(420, 36)\}} (\{\text{Faux4(True, } x(3, 36), y(7,$   
 $x(420, 36), x(388, 36), x(311, 36), x(234, 36), x(157, 36), x(80, 36), 142),$   
 $\text{Faux4(True, } y(8, 1), y(7, y(8, 2), y(8, 1), y(8, 1), y(10, 1), y(7, y(4), 314)\}) \vee$   
 $\{\text{Faux6(False, } x(3, 36), x(420, 36), x(388, 36), x(311, 36),$   
 $x(234, 36), x(157, 36), x(80, 36), 143),$   
 $\text{Faux6(False, } y(8, 1), y(8, 2), y(8, 1), y(8, 1), y(10, 1), y(7, y(4), 315)\}) \wedge$   
 $\forall_{\{x(3, 37), x(80, 37), x(157, 37), x(234, 37), x(311, 37), x(388, 37), x(420, 37)\}} (\{\text{Faux4(True, } x(3, 37), y(7,$   
 $x(420, 37), x(388, 37), x(311, 37), x(234, 37), x(157, 37), x(80, 37), 142),$   
 $\text{Faux4(True, } y(8, 1), y(7, y(9, 2), y(8, 1), y(10, 1), y(8, 1), y(7, y(4), 324)\}) \vee$   
 $\{\text{Faux6(False, } x(3, 37), x(420, 37), x(388, 37), x(311, 37),$   
 $x(234, 37), x(157, 37), x(80, 37), 143),$   
 $\text{Faux6(False, } y(8, 1), y(9, 2), y(8, 1), y(10, 1), y(8, 1), y(7, y(4), 325)\}) \wedge$   
 $\forall_{\{x(3, 38), x(80, 38), x(157, 38), x(234, 38), x(311, 38), x(388, 38), x(420, 38)\}} (\{\text{Faux4(True, } x(3, 38), y(7,$   
 $x(420, 38), x(388, 38), x(311, 38), x(234, 38), x(157, 38), x(80, 38), 142),$   
 $\text{Faux4(True, } y(9, 1), y(7, y(8, 2), y(10, 1), y(8, 1), y(8, 1), y(7, y(4), 334)\}) \vee$   
 $\{\text{Faux6(False, } x(3, 38), x(420, 38), x(388, 38), x(311, 38),$   
 $x(234, 38), x(157, 38), x(80, 38), 143),$   
 $\text{Faux6(False, } y(9, 1), y(8, 2), y(10, 1), y(8, 1), y(8, 1), y(7, y(4), 335)\}) \wedge$   
 $\forall_{\{x(3, 39), x(80, 39), x(157, 39), x(234, 39), x(311, 39), x(388, 39), x(420, 39)\}} (\{\text{Faux4(True, } x(3, 39), y(7,$   
 $x(420, 39), x(388, 39), x(311, 39), x(234, 39), x(157, 39), x(80, 39), 142),$   
 $\text{Faux4(True, } y(8, 1), y(7, y(8, 2), y(8, 1), y(8, 1), y(9, 1), y(7, y(3), 344)\}) \vee$   
 $\{\text{Faux6(False, } x(3, 39), x(420, 39), x(388, 39), x(311, 39),$

$x(234, 39), x(157, 39), x(80, 39), 143),$   
 $\text{Faux6(False, } y(8, 1), y(8, 2), y(8, 1), y(8, 1), y(9, 1), y(7), y(3), 345)\}) \wedge$   
 $\forall_{\{x(3, 40), x(80, 40), x(157, 40), x(234, 40), x(311, 40), x(388, 40), x(420, 40)\}} (\{\text{Faux4(True, } x(3, 40), y(7),$   
 $x(420, 40), x(388, 40), x(311, 40), x(234, 40), x(157, 40), x(80, 40), 142),$   
 $\text{Faux4(True, } y(8, 1), y(7), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 361)\} \vee$   
 $\{\text{Faux6(False, } x(3, 40), x(420, 40), x(388, 40), x(311, 40),$   
 $x(234, 40), x(157, 40), x(80, 40), 143),$   
 $\text{Faux6(False, } y(8, 1), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 362)\}) \wedge$   
 $\forall_{\{x(3, 41), x(80, 41), x(157, 41), x(234, 41), x(311, 41), x(388, 41), x(420, 41)\}} (\{\text{Faux4(True, } x(3, 41), y(7),$   
 $x(420, 41), x(388, 41), x(311, 41), x(234, 41), x(157, 41), x(80, 41), 142),$   
 $\text{Faux4(True, } y(8, 1), y(7), y(10, 3), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 375)\} \vee$   
 $\{\text{Faux6(False, } x(3, 41), x(420, 41), x(388, 41), x(311, 41),$   
 $x(234, 41), x(157, 41), x(80, 41), 143),$   
 $\text{Faux6(False, } y(8, 1), y(10, 3), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 376)\}) \wedge$   
 $\forall_{\{x(3, 42), x(80, 42), x(157, 42), x(234, 42), x(311, 42), x(388, 42), x(420, 42)\}} (\{\text{Faux4(True, } x(3, 42), y(7),$   
 $x(420, 42), x(388, 42), x(311, 42), x(234, 42), x(157, 42), x(80, 42), 142),$   
 $\text{Faux4(True, } y(10, 1), y(7), y(8, 3), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 389)\} \vee$   
 $\{\text{Faux6(False, } x(3, 42), x(420, 42), x(388, 42), x(311, 42),$   
 $x(234, 42), x(157, 42), x(80, 42), 143),$   
 $\text{Faux6(False, } y(10, 1), y(8, 3), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 390)\}) \wedge$   
 $\forall_{\{x(3, 43), x(80, 43), x(157, 43), x(234, 43), x(311, 43), x(388, 43), x(420, 43)\}} (\{\text{Faux4(True, } x(3, 43), y(7),$   
 $x(420, 43), x(388, 43), x(311, 43), x(234, 43), x(157, 43), x(80, 43), 142),$   
 $\text{Faux4(True, } y(8, 1), y(7), y(8, 3), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 403)\} \vee$   
 $\{\text{Faux6(False, } x(3, 43), x(420, 43), x(388, 43), x(311, 43),$   
 $x(234, 43), x(157, 43), x(80, 43), 143),$   
 $\text{Faux6(False, } y(8, 1), y(8, 3), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 404)\}) \wedge$   
 $\forall_{\{x(3, 44), x(80, 44), x(157, 44), x(234, 44), x(311, 44), x(388, 44), x(420, 44)\}} (\{\text{Faux4(True, } x(3, 44), y(7),$   
 $x(420, 44), x(388, 44), x(311, 44), x(234, 44), x(157, 44), x(80, 44), 142),$   
 $\text{Faux4(True, } y(8, 1), y(7), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 418)\} \vee$   
 $\{\text{Faux6(False, } x(3, 44), x(420, 44), x(388, 44), x(311, 44),$   
 $x(234, 44), x(157, 44), x(80, 44), 143),$   
 $\text{Faux6(False, } y(8, 1), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 419)\}) \wedge$   
 $\forall_{\{x(3, 45), x(80, 45), x(157, 45), x(234, 45), x(311, 45), x(388, 45), x(420, 45)\}} (\{\text{Faux4(True, } x(3, 45), y(7),$   
 $x(420, 45), x(388, 45), x(311, 45), x(234, 45), x(157, 45), x(80, 45), 142),$   
 $\text{Faux4(True, } y(9, 1), y(7), y(11, 3), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 432)\} \vee$   
 $\{\text{Faux6(False, } x(3, 45), x(420, 45), x(388, 45), x(311, 45),$   
 $x(234, 45), x(157, 45), x(80, 45), 143),$   
 $\text{Faux6(False, } y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 433)\}) \wedge$   
 $\forall_{\{x(3, 46), x(80, 46), x(157, 46), x(234, 46), x(311, 46), x(388, 46), x(420, 46)\}} (\{\text{Faux4(True, } x(3, 46), y(7),$   
 $x(420, 46), x(388, 46), x(311, 46), x(234, 46), x(157, 46), x(80, 46), 142),$   
 $\text{Faux4(True, } y(11, 1), y(7), y(8, 3), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 446)\} \vee$   
 $\{\text{Faux6(False, } x(3, 46), x(420, 46), x(388, 46), x(311, 46),$

```

x(234, 46), x(157, 46), x(80, 46), 143),
Faux6(False, y(11, 1), y(8, 3), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 447})} \wedge
\forall_{\{x(3, 47), x(80, 47), x(157, 47), x(234, 47), x(311, 47), x(388, 47), x(420, 47)\}} (\{Faux4(True, x(3, 47), y(7),
x(420, 47), x(388, 47), x(311, 47), x(234, 47), x(157, 47), x(80, 47), 142),
Faux4(True, y(8, 1), y(7), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 460}\} \vee
{Faux6(False, x(3, 47), x(420, 47), x(388, 47), x(311, 47),
x(234, 47), x(157, 47), x(80, 47), 143),
Faux6(False, y(8, 1), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 461})} \wedge
\forall_{\{x(3, 48), x(80, 48), x(157, 48), x(234, 48), x(311, 48), x(388, 48), x(420, 48)\}} (\{Faux4(True, x(3, 48), y(7),
x(420, 48), x(388, 48), x(311, 48), x(234, 48), x(157, 48), x(80, 48), 142),
Faux4(True, y(8, 1), y(7), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 475}\} \vee
{Faux6(False, x(3, 48), x(420, 48), x(388, 48), x(311, 48),
x(234, 48), x(157, 48), x(80, 48), 143),
Faux6(False, y(8, 1), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 476})} \wedge
\forall_{\{x(3, 49), x(80, 49), x(157, 49), x(234, 49), x(311, 49), x(388, 49), x(420, 49)\}} (\{Faux4(True, x(3, 49), y(7),
x(420, 49), x(388, 49), x(311, 49), x(234, 49), x(157, 49), x(80, 49), 142),
Faux4(True, y(10, 1), y(7), y(11, 3), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 489}\} \vee
{Faux6(False, x(3, 49), x(420, 49), x(388, 49), x(311, 49),
x(234, 49), x(157, 49), x(80, 49), 143),
Faux6(False, y(10, 1), y(11, 3), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 490})} \wedge
\forall_{\{x(3, 50), x(80, 50), x(157, 50), x(234, 50), x(311, 50), x(388, 50), x(420, 50)\}} (\{Faux4(True, x(3, 50), y(7),
x(420, 50), x(388, 50), x(311, 50), x(234, 50), x(157, 50), x(80, 50), 142),
Faux4(True, y(11, 1), y(7), y(8, 3), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 503}\} \vee
{Faux6(False, x(3, 50), x(420, 50), x(388, 50), x(311, 50),
x(234, 50), x(157, 50), x(80, 50), 143),
Faux6(False, y(11, 1), y(8, 3), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 504})} \wedge
\forall_{\{x(3, 51), x(80, 51), x(157, 51), x(234, 51), x(311, 51), x(388, 51), x(420, 51)\}} (\{Faux4(True, x(3, 51), y(7),
x(420, 51), x(388, 51), x(311, 51), x(234, 51), x(157, 51), x(80, 51), 142),
Faux4(True, y(8, 1), y(7), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 517}\} \vee
{Faux6(False, x(3, 51), x(420, 51), x(388, 51), x(311, 51),
x(234, 51), x(157, 51), x(80, 51), 143),
Faux6(False, y(8, 1), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 518})} \wedge
\forall_{\{x(3, 52), x(80, 52), x(157, 52), x(234, 52), x(311, 52), x(388, 52), x(420, 52)\}} (\{Faux4(True, x(3, 52), y(7),
x(420, 52), x(388, 52), x(311, 52), x(234, 52), x(157, 52), x(80, 52), 142),
Faux4(True, y(9, 1), y(7), y(11, 3), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 532}\} \vee
{Faux6(False, x(3, 52), x(420, 52), x(388, 52), x(311, 52),
x(234, 52), x(157, 52), x(80, 52), 143),
Faux6(False, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 533})} \wedge
\forall_{\{x(3, 53), x(80, 53), x(157, 53), x(234, 53), x(311, 53), x(388, 53), x(420, 53)\}} (\{Faux4(True, x(3, 53), y(7),
x(420, 53), x(388, 53), x(311, 53), x(234, 53), x(157, 53), x(80, 53), 142),
Faux4(True, y(11, 1), y(7), y(11, 3), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 546}\} \vee
{Faux6(False, x(3, 53), x(420, 53), x(388, 53), x(311, 53),

```

$x(234, 53), x(157, 53), x(80, 53), 143),$   
 $\text{Faux6}(\text{False}, y(11, 1), y(11, 3), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 547)) \wedge$   
 $\forall_{\{x(3, 54), x(80, 54), x(157, 54), x(234, 54), x(311, 54), x(388, 54), x(420, 54)\}} (\{\text{Faux4}(\text{True}, x(3, 54), y(7),$   
 $x(420, 54), x(388, 54), x(311, 54), x(234, 54), x(157, 54), x(80, 54), 142),$   
 $\text{Faux4}(\text{True}, y(11, 1), y(7), y(8, 3), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 560)\} \vee$   
 $\{\text{Faux6}(\text{False}, x(3, 54), x(420, 54), x(388, 54), x(311, 54),$   
 $x(234, 54), x(157, 54), x(80, 54), 143),$   
 $\text{Faux6}(\text{False}, y(11, 1), y(8, 3), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 561)) \wedge$   
 $\forall_{\{x(3, 55), x(80, 55), x(157, 55), x(234, 55), x(311, 55), x(388, 55), x(420, 55)\}} (\{\text{Faux4}(\text{True}, x(3, 55), y(7),$   
 $x(420, 55), x(388, 55), x(311, 55), x(234, 55), x(157, 55), x(80, 55), 142),$   
 $\text{Faux4}(\text{True}, y(8, 1), y(7), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 574)\} \vee$   
 $\{\text{Faux6}(\text{False}, x(3, 55), x(420, 55), x(388, 55), x(311, 55),$   
 $x(234, 55), x(157, 55), x(80, 55), 143),$   
 $\text{Faux6}(\text{False}, y(8, 1), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 575)) \wedge$   
 $\forall_{\{x(3, 56), x(80, 56), x(157, 56), x(234, 56), x(311, 56), x(388, 56), x(420, 56)\}} (\{\text{Faux4}(\text{True}, x(3, 56), y(7),$   
 $x(420, 56), x(388, 56), x(311, 56), x(234, 56), x(157, 56), x(80, 56), 142),$   
 $\text{Faux4}(\text{True}, y(10, 1), y(7), y(11, 3), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 589)\} \vee$   
 $\{\text{Faux6}(\text{False}, x(3, 56), x(420, 56), x(388, 56), x(311, 56),$   
 $x(234, 56), x(157, 56), x(80, 56), 143),$   
 $\text{Faux6}(\text{False}, y(10, 1), y(11, 3), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 590)) \wedge$   
 $\forall_{\{x(3, 57), x(80, 57), x(157, 57), x(234, 57), x(311, 57), x(388, 57), x(420, 57)\}} (\{\text{Faux4}(\text{True}, x(3, 57), y(7),$   
 $x(420, 57), x(388, 57), x(311, 57), x(234, 57), x(157, 57), x(80, 57), 142),$   
 $\text{Faux4}(\text{True}, y(11, 1), y(7), y(11, 3), y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 603)\} \vee$   
 $\{\text{Faux6}(\text{False}, x(3, 57), x(420, 57), x(388, 57), x(311, 57),$   
 $x(234, 57), x(157, 57), x(80, 57), 143),$   
 $\text{Faux6}(\text{False}, y(11, 1), y(11, 3), y(11, 1), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 604)) \wedge$   
 $\forall_{\{x(3, 58), x(80, 58), x(157, 58), x(234, 58), x(311, 58), x(388, 58), x(420, 58)\}} (\{\text{Faux4}(\text{True}, x(3, 58), y(7),$   
 $x(420, 58), x(388, 58), x(311, 58), x(234, 58), x(157, 58), x(80, 58), 142),$   
 $\text{Faux4}(\text{True}, y(11, 1), y(7), y(9, 3), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 617)\} \vee$   
 $\{\text{Faux6}(\text{False}, x(3, 58), x(420, 58), x(388, 58), x(311, 58),$   
 $x(234, 58), x(157, 58), x(80, 58), 143),$   
 $\text{Faux6}(\text{False}, y(11, 1), y(9, 3), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 618)) \wedge$   
 $\forall_{\{x(3, 59), x(80, 59), x(157, 59), x(234, 59), x(311, 59), x(388, 59), x(420, 59)\}} (\{\text{Faux4}(\text{True}, x(3, 59), y(7),$   
 $x(420, 59), x(388, 59), x(311, 59), x(234, 59), x(157, 59), x(80, 59), 142),$   
 $\text{Faux4}(\text{True}, y(9, 1), y(7), y(11, 3), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 631)\} \vee$   
 $\{\text{Faux6}(\text{False}, x(3, 59), x(420, 59), x(388, 59), x(311, 59),$   
 $x(234, 59), x(157, 59), x(80, 59), 143),$   
 $\text{Faux6}(\text{False}, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 632)) \wedge$   
 $\forall_{\{x(4, 1), x(81, 1), x(158, 1), x(235, 1), x(312, 1), x(389, 1)\}} (\{\text{Faux6}(\text{True}, x(4, 1), x(389, 1),$   
 $x(312, 1), x(235, 1), x(158, 1), x(81, 1), y(6), 144),$   
 $\text{Faux6}(\text{True}, y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7), y(6), 14)\} \vee$   
 $\{\text{P}(\text{False}, x(4, 1), x(389, 1), x(312, 1), x(235, 1), x(158, 1), x(81, 1), 145),$

$$\begin{aligned}
& P(\text{False}, y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7, 15)) \wedge \\
& \forall_{\{x(4, 2), x(81, 2), x(158, 2), x(235, 2), x(312, 2), x(389, 2)\}} (\{Faux6(\text{True}, x(4, 2), x(389, 2), \\
& x(312, 2), x(235, 2), x(158, 2), x(81, 2), y(6, 144), \\
& Faux6(\text{True}, y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7, y(6, 33)) \vee \\
& \{P(\text{False}, x(4, 2), x(389, 2), x(312, 2), x(235, 2), x(158, 2), x(81, 2), 145), \\
& P(\text{False}, y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(7, 34)) \} \wedge \\
& \forall_{\{x(4, 3), x(81, 3), x(158, 3), x(235, 3), x(312, 3), x(389, 3)\}} (\{Faux6(\text{True}, x(4, 3), x(389, 3), \\
& x(312, 3), x(235, 3), x(158, 3), x(81, 3), y(6, 144), \\
& Faux6(\text{True}, y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7, y(6, 39)) \vee \\
& \{P(\text{False}, x(4, 3), x(389, 3), x(312, 3), x(235, 3), x(158, 3), x(81, 3), 145), \\
& P(\text{False}, y(10, 1), y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(7, 40)) \} \wedge \\
& \forall_{\{x(4, 4), x(81, 4), x(158, 4), x(235, 4), x(312, 4), x(389, 4)\}} (\{Faux6(\text{True}, x(4, 4), x(389, 4), \\
& x(312, 4), x(235, 4), x(158, 4), x(81, 4), y(6, 144), \\
& Faux6(\text{True}, y(8, 1), y(8, 2), y(11, 1), y(8, 1), y(10, 1), y(7, y(6, 128)) \vee \\
& \{P(\text{False}, x(4, 4), x(389, 4), x(312, 4), x(235, 4), x(158, 4), x(81, 4), 145), \\
& P(\text{False}, y(8, 1), y(8, 2), y(11, 1), y(8, 1), y(10, 1), y(7, 129)) \} \wedge \\
& \forall_{\{x(4, 5), x(81, 5), x(158, 5), x(235, 5), x(312, 5), x(389, 5)\}} (\{Faux6(\text{True}, x(4, 5), x(389, 5), \\
& x(312, 5), x(235, 5), x(158, 5), x(81, 5), y(6, 144), \\
& Faux6(\text{True}, y(11, 1), y(8, 2), y(11, 1), y(8, 1), y(9, 1), y(7, y(6, 159)) \vee \\
& \{P(\text{False}, x(4, 5), x(389, 5), x(312, 5), x(235, 5), x(158, 5), x(81, 5), 145), \\
& P(\text{False}, y(11, 1), y(8, 2), y(11, 1), y(8, 1), y(9, 1), y(7, 160)) \} \wedge \\
& \forall_{\{x(4, 6), x(81, 6), x(158, 6), x(235, 6), x(312, 6), x(389, 6)\}} (\{Faux6(\text{True}, x(4, 6), x(389, 6), \\
& x(312, 6), x(235, 6), x(158, 6), x(81, 6), y(6, 144), \\
& Faux6(\text{True}, y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7, y(6, 169)) \vee \\
& \{P(\text{False}, x(4, 6), x(389, 6), x(312, 6), x(235, 6), x(158, 6), x(81, 6), 145), \\
& P(\text{False}, y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7, 170)) \} \wedge \\
& \forall_{\{x(4, 7), x(81, 7), x(158, 7), x(235, 7), x(312, 7), x(389, 7)\}} (\{Faux6(\text{True}, x(4, 7), x(389, 7), \\
& x(312, 7), x(235, 7), x(158, 7), x(81, 7), y(6, 144), \\
& Faux6(\text{True}, y(11, 1), y(8, 2), y(11, 1), y(11, 1), y(10, 1), y(7, y(6, 190)) \vee \\
& \{P(\text{False}, x(4, 7), x(389, 7), x(312, 7), x(235, 7), x(158, 7), x(81, 7), 145), \\
& P(\text{False}, y(11, 1), y(8, 2), y(11, 1), y(11, 1), y(10, 1), y(7, 191)) \} \wedge \\
& \forall_{\{x(4, 8), x(81, 8), x(158, 8), x(235, 8), x(312, 8), x(389, 8)\}} (\{Faux6(\text{True}, x(4, 8), x(389, 8), \\
& x(312, 8), x(235, 8), x(158, 8), x(81, 8), y(6, 144), \\
& Faux6(\text{True}, y(8, 1), y(9, 2), y(11, 1), y(10, 1), y(11, 1), y(7, y(6, 200)) \vee \\
& \{P(\text{False}, x(4, 8), x(389, 8), x(312, 8), x(235, 8), x(158, 8), x(81, 8), 145), \\
& P(\text{False}, y(8, 1), y(9, 2), y(11, 1), y(10, 1), y(11, 1), y(7, 201)) \} \wedge \\
& \forall_{\{x(4, 9), x(81, 9), x(158, 9), x(235, 9), x(312, 9), x(389, 9)\}} (\{Faux6(\text{True}, x(4, 9), x(389, 9), \\
& x(312, 9), x(235, 9), x(158, 9), x(81, 9), y(6, 144), \\
& Faux6(\text{True}, y(11, 1), y(11, 2), y(11, 1), y(11, 1), y(9, 1), y(7, y(6, 221)) \vee \\
& \{P(\text{False}, x(4, 9), x(389, 9), x(312, 9), x(235, 9), x(158, 9), x(81, 9), 145), \\
& P(\text{False}, y(11, 1), y(11, 2), y(11, 1), y(11, 1), y(9, 1), y(7, 222)) \} \wedge \\
& \forall_{\{x(4, 10), x(81, 10), x(158, 10), x(235, 10), x(312, 10), x(389, 10)\}} (\{Faux6(\text{True}, x(4, 10), x(389, 10),
\end{aligned}$$

$x(312, 10), x(235, 10), x(158, 10), x(81, 10), y(6), 144),$   
 $\text{Faux6}(\text{True}, y(11, 1), y(10, 2), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 231) \vee$   
 $\{\text{P}(\text{False}, x(4, 10), x(389, 10), x(312, 10), x(235, 10), x(158, 10), x(81, 10), 145),$   
 $\text{P}(\text{False}, y(11, 1), y(10, 2), y(11, 1), y(9, 1), y(11, 1), y(7), 232)\} \wedge$   
 $\forall_{\{x(4, 11), x(81, 11), x(158, 11), x(235, 11), x(312, 11), x(389, 11)\}} (\{\text{Faux6}(\text{True}, x(4, 11), x(389, 11),$   
 $x(312, 11), x(235, 11), x(158, 11), x(81, 11), y(6), 144),$   
 $\text{Faux6}(\text{True}, y(10, 1), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 241) \vee$   
 $\{\text{P}(\text{False}, x(4, 11), x(389, 11), x(312, 11), x(235, 11), x(158, 11), x(81, 11), 145),$   
 $\text{P}(\text{False}, y(10, 1), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), 242)\} \wedge$   
 $\forall_{\{x(4, 12), x(81, 12), x(158, 12), x(235, 12), x(312, 12), x(389, 12)\}} (\{\text{Faux6}(\text{True}, x(4, 12), x(389, 12),$   
 $x(312, 12), x(235, 12), x(158, 12), x(81, 12), y(6), 144),$   
 $\text{Faux6}(\text{True}, y(8, 1), y(8, 3), y(8, 1), y(8, 1), y(10, 1), y(7), y(6), 404) \vee$   
 $\{\text{P}(\text{False}, x(4, 12), x(389, 12), x(312, 12), x(235, 12), x(158, 12), x(81, 12), 145),$   
 $\text{P}(\text{False}, y(8, 1), y(8, 3), y(8, 1), y(8, 1), y(10, 1), y(7), 405)\} \wedge$   
 $\forall_{\{x(4, 13), x(81, 13), x(158, 13), x(235, 13), x(312, 13), x(389, 13)\}} (\{\text{Faux6}(\text{True}, x(4, 13), x(389, 13),$   
 $x(312, 13), x(235, 13), x(158, 13), x(81, 13), y(6), 144),$   
 $\text{Faux6}(\text{True}, y(11, 1), y(8, 3), y(11, 1), y(8, 1), y(9, 1), y(7), y(6), 447) \vee$   
 $\{\text{P}(\text{False}, x(4, 13), x(389, 13), x(312, 13), x(235, 13), x(158, 13), x(81, 13), 145),$   
 $\text{P}(\text{False}, y(11, 1), y(8, 3), y(11, 1), y(8, 1), y(9, 1), y(7), 448)\} \wedge$   
 $\forall_{\{x(4, 14), x(81, 14), x(158, 14), x(235, 14), x(312, 14), x(389, 14)\}} (\{\text{Faux6}(\text{True}, x(4, 14), x(389, 14),$   
 $x(312, 14), x(235, 14), x(158, 14), x(81, 14), y(6), 144),$   
 $\text{Faux6}(\text{True}, y(8, 1), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), y(6), 461) \vee$   
 $\{\text{P}(\text{False}, x(4, 14), x(389, 14), x(312, 14), x(235, 14), x(158, 14), x(81, 14), 145),$   
 $\text{P}(\text{False}, y(8, 1), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), 462)\} \wedge$   
 $\forall_{\{x(4, 15), x(81, 15), x(158, 15), x(235, 15), x(312, 15), x(389, 15)\}} (\{\text{Faux6}(\text{True}, x(4, 15), x(389, 15),$   
 $x(312, 15), x(235, 15), x(158, 15), x(81, 15), y(6), 144),$   
 $\text{Faux6}(\text{True}, y(11, 1), y(8, 3), y(11, 1), y(8, 1), y(10, 1), y(7), y(6), 504) \vee$   
 $\{\text{P}(\text{False}, x(4, 15), x(389, 15), x(312, 15), x(235, 15), x(158, 15), x(81, 15), 145),$   
 $\text{P}(\text{False}, y(11, 1), y(8, 3), y(11, 1), y(8, 1), y(10, 1), y(7), 505)\} \wedge$   
 $\forall_{\{x(4, 16), x(81, 16), x(158, 16), x(235, 16), x(312, 16), x(389, 16)\}} (\{\text{Faux6}(\text{True}, x(4, 16), x(389, 16),$   
 $x(312, 16), x(235, 16), x(158, 16), x(81, 16), y(6), 144),$   
 $\text{Faux6}(\text{True}, y(8, 1), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), y(6), 518) \vee$   
 $\{\text{P}(\text{False}, x(4, 16), x(389, 16), x(312, 16), x(235, 16), x(158, 16), x(81, 16), 145),$   
 $\text{P}(\text{False}, y(8, 1), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), 519)\} \wedge$   
 $\forall_{\{x(4, 17), x(81, 17), x(158, 17), x(235, 17), x(312, 17), x(389, 17)\}} (\{\text{Faux6}(\text{True}, x(4, 17), x(389, 17),$   
 $x(312, 17), x(235, 17), x(158, 17), x(81, 17), y(6), 144),$   
 $\text{Faux6}(\text{True}, y(11, 1), y(11, 3), y(11, 1), y(11, 1), y(9, 1), y(7), y(6), 547) \vee$   
 $\{\text{P}(\text{False}, x(4, 17), x(389, 17), x(312, 17), x(235, 17), x(158, 17), x(81, 17), 145),$   
 $\text{P}(\text{False}, y(11, 1), y(11, 3), y(11, 1), y(11, 1), y(9, 1), y(7), 548)\} \wedge$   
 $\forall_{\{x(4, 18), x(81, 18), x(158, 18), x(235, 18), x(312, 18), x(389, 18)\}} (\{\text{Faux6}(\text{True}, x(4, 18), x(389, 18),$   
 $x(312, 18), x(235, 18), x(158, 18), x(81, 18), y(6), 144),$   
 $\text{Faux6}(\text{True}, y(11, 1), y(8, 3), y(11, 1), y(9, 1), y(11, 1), y(7), y(6), 561) \vee$

$\{P(False, x(4, 18), x(389, 18), x(312, 18), x(235, 18), x(158, 18), x(81, 18), 145),$   
 $P(False, y(11, 1), y(8, 3), y(11, 1), y(9, 1), y(11, 1), y(7), 562)\} \wedge$   
 $\forall_{\{x(4, 19), x(81, 19), x(158, 19), x(235, 19), x(312, 19), x(389, 19)\}} (\{Faux6(True, x(4, 19), x(389, 19),$   
 $x(312, 19), x(235, 19), x(158, 19), x(81, 19), y(6), 144),$   
 $Faux6(True, y(8, 1), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), y(6), 575)\} \vee$   
 $\{P(False, x(4, 19), x(389, 19), x(312, 19), x(235, 19), x(158, 19), x(81, 19), 145),$   
 $P(False, y(8, 1), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), 576)\} \wedge$   
 $\forall_{\{x(4, 20), x(81, 20), x(158, 20), x(235, 20), x(312, 20), x(389, 20)\}} (\{Faux6(True, x(4, 20), x(389, 20),$   
 $x(312, 20), x(235, 20), x(158, 20), x(81, 20), y(6), 144),$   
 $Faux6(True, y(11, 1), y(11, 3), y(11, 1), y(11, 1), y(10, 1), y(7), y(6), 604)\} \vee$   
 $\{P(False, x(4, 20), x(389, 20), x(312, 20), x(235, 20), x(158, 20), x(81, 20), 145),$   
 $P(False, y(11, 1), y(11, 3), y(11, 1), y(11, 1), y(10, 1), y(7), 605)\} \wedge$   
 $\forall_{\{x(4, 21), x(81, 21), x(158, 21), x(235, 21), x(312, 21), x(389, 21)\}} (\{Faux6(True, x(4, 21), x(389, 21),$   
 $x(312, 21), x(235, 21), x(158, 21), x(81, 21), y(6), 144),$   
 $Faux6(True, y(11, 1), y(9, 3), y(11, 1), y(10, 1), y(11, 1), y(7), y(6), 618)\} \vee$   
 $\{P(False, x(4, 21), x(389, 21), x(312, 21), x(235, 21), x(158, 21), x(81, 21), 145),$   
 $P(False, y(11, 1), y(9, 3), y(11, 1), y(10, 1), y(11, 1), y(7), 619)\} \wedge$   
 $\forall_{\{x(4, 22), x(81, 22), x(158, 22), x(235, 22), x(312, 22), x(389, 22)\}} (\{Faux6(True, x(4, 22), x(389, 22),$   
 $x(312, 22), x(235, 22), x(158, 22), x(81, 22), y(6), 144),$   
 $Faux6(True, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(11, 1), y(7), y(6), 632)\} \vee$   
 $\{P(False, x(4, 22), x(389, 22), x(312, 22), x(235, 22), x(158, 22), x(81, 22), 145),$   
 $P(False, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(11, 1), y(7), 633)\} \wedge$   
 $\forall_{\{x(5, 1), x(82, 1), x(159, 1), x(236, 1), x(313, 1), x(390, 1)\}} (\{Faux6(True, x(5, 1), x(390, 1),$   
 $x(313, 1), x(236, 1), x(159, 1), x(82, 1), y(5), 146),$   
 $Faux6(True, y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 8)\} \vee$   
 $\{P1(False, x(5, 1), x(390, 1), x(313, 1), x(236, 1), x(159, 1), x(82, 1), 147),$   
 $P1(False, y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(11, 1), y(7), 9)\} \wedge$   
 $\forall_{\{x(5, 2), x(82, 2), x(159, 2), x(236, 2), x(313, 2), x(390, 2)\}} (\{Faux6(True, x(5, 2), x(390, 2),$   
 $x(313, 2), x(236, 2), x(159, 2), x(82, 2), y(5), 146),$   
 $Faux6(True, y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(11, 1), y(7), y(5), 21)\} \vee$   
 $\{P1(False, x(5, 2), x(390, 2), x(313, 2), x(236, 2), x(159, 2), x(82, 2), 147),$   
 $P1(False, y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(11, 1), y(7), 22)\} \wedge$   
 $\forall_{\{x(5, 3), x(82, 3), x(159, 3), x(236, 3), x(313, 3), x(390, 3)\}} (\{Faux6(True, x(5, 3), x(390, 3),$   
 $x(313, 3), x(236, 3), x(159, 3), x(82, 3), y(5), 146),$   
 $Faux6(True, y(9, 1), y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 27)\} \vee$   
 $\{P1(False, x(5, 3), x(390, 3), x(313, 3), x(236, 3), x(159, 3), x(82, 3), 147),$   
 $P1(False, y(9, 1), y(11, 1), y(10, 1), y(11, 1), y(8, 1), y(7), 28)\} \wedge$   
 $\forall_{\{x(5, 4), x(82, 4), x(159, 4), x(236, 4), x(313, 4), x(390, 4)\}} (\{Faux6(True, x(5, 4), x(390, 4),$   
 $x(313, 4), x(236, 4), x(159, 4), x(82, 4), y(5), 146),$   
 $Faux6(True, y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 108)\} \vee$   
 $\{P1(False, x(5, 4), x(390, 4), x(313, 4), x(236, 4), x(159, 4), x(82, 4), 147),$   
 $P1(False, y(8, 1), y(10, 2), y(8, 1), y(9, 1), y(11, 1), y(7), 109)\} \wedge$

$$\begin{aligned}
& \forall_{\{x(5,5), x(82,5), x(159,5), x(236,5), x(313,5), x(390,5)\}} (\{\text{Faux6}(\text{True}, x(5, 5), x(390, 5), \\
& \quad x(313, 5), x(236, 5), x(159, 5), x(82, 5), y(5), 146), \\
& \quad \text{Faux6}(\text{True}, y(10, 1), y(8, 2), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 118)\} \vee \\
& \quad \{\text{P1}(\text{False}, x(5, 5), x(390, 5), x(313, 5), x(236, 5), x(159, 5), x(82, 5), 147), \\
& \quad \text{P1}(\text{False}, y(10, 1), y(8, 2), y(9, 1), y(11, 1), y(8, 1), y(7), 119)\}) \wedge \\
& \forall_{\{x(5,6), x(82,6), x(159,6), x(236,6), x(313,6), x(390,6)\}} (\{\text{Faux6}(\text{True}, x(5, 6), x(390, 6), \\
& \quad x(313, 6), x(236, 6), x(159, 6), x(82, 6), y(5), 146), \\
& \quad \text{Faux6}(\text{True}, y(8, 1), y(9, 2), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 139)\} \vee \\
& \quad \{\text{P1}(\text{False}, x(5, 6), x(390, 6), x(313, 6), x(236, 6), x(159, 6), x(82, 6), 147), \\
& \quad \text{P1}(\text{False}, y(8, 1), y(9, 2), y(8, 1), y(10, 1), y(11, 1), y(7), 140)\}) \wedge \\
& \forall_{\{x(5,7), x(82,7), x(159,7), x(236,7), x(313,7), x(390,7)\}} (\{\text{Faux6}(\text{True}, x(5, 7), x(390, 7), \\
& \quad x(313, 7), x(236, 7), x(159, 7), x(82, 7), y(5), 146), \\
& \quad \text{Faux6}(\text{True}, y(9, 1), y(11, 2), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 149)\} \vee \\
& \quad \{\text{P1}(\text{False}, x(5, 7), x(390, 7), x(313, 7), x(236, 7), x(159, 7), x(82, 7), 147), \\
& \quad \text{P1}(\text{False}, y(9, 1), y(11, 2), y(10, 1), y(11, 1), y(8, 1), y(7), 150)\}) \wedge \\
& \forall_{\{x(5,8), x(82,8), x(159,8), x(236,8), x(313,8), x(390,8)\}} (\{\text{Faux6}(\text{True}, x(5, 8), x(390, 8), \\
& \quad x(313, 8), x(236, 8), x(159, 8), x(82, 8), y(5), 146), \\
& \quad \text{Faux6}(\text{True}, y(10, 1), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 180)\} \vee \\
& \quad \{\text{P1}(\text{False}, x(5, 8), x(390, 8), x(313, 8), x(236, 8), x(159, 8), x(82, 8), 147), \\
& \quad \text{P1}(\text{False}, y(10, 1), y(11, 2), y(9, 1), y(11, 1), y(11, 1), y(7), 181)\}) \wedge \\
& \forall_{\{x(5,9), x(82,9), x(159,9), x(236,9), x(313,9), x(390,9)\}} (\{\text{Faux6}(\text{True}, x(5, 9), x(390, 9), \\
& \quad x(313, 9), x(236, 9), x(159, 9), x(82, 9), y(5), 146), \\
& \quad \text{Faux6}(\text{True}, y(9, 1), y(11, 2), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 211)\} \vee \\
& \quad \{\text{P1}(\text{False}, x(5, 9), x(390, 9), x(313, 9), x(236, 9), x(159, 9), x(82, 9), 147), \\
& \quad \text{P1}(\text{False}, y(9, 1), y(11, 2), y(10, 1), y(11, 1), y(11, 1), y(7), 212)\}) \wedge \\
& \forall_{\{x(5,10), x(82,10), x(159,10), x(236,10), x(313,10), x(390,10)\}} (\{\text{Faux6}(\text{True}, x(5, 10), x(390, 10), \\
& \quad x(313, 10), x(236, 10), x(159, 10), x(82, 10), y(5), 146), \\
& \quad \text{Faux6}(\text{True}, y(8, 1), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), y(5), 362)\} \vee \\
& \quad \{\text{P1}(\text{False}, x(5, 10), x(390, 10), x(313, 10), x(236, 10), x(159, 10), x(82, 10), 147), \\
& \quad \text{P1}(\text{False}, y(8, 1), y(8, 3), y(8, 1), y(9, 1), y(11, 1), y(7), 363)\}) \wedge \\
& \forall_{\{x(5,11), x(82,11), x(159,11), x(236,11), x(313,11), x(390,11)\}} (\{\text{Faux6}(\text{True}, x(5, 11), x(390, 11), \\
& \quad x(313, 11), x(236, 11), x(159, 11), x(82, 11), y(5), 146), \\
& \quad \text{Faux6}(\text{True}, y(8, 1), y(10, 3), y(9, 1), y(11, 1), y(8, 1), y(7), y(5), 376)\} \vee \\
& \quad \{\text{P1}(\text{False}, x(5, 11), x(390, 11), x(313, 11), x(236, 11), x(159, 11), x(82, 11), 147), \\
& \quad \text{P1}(\text{False}, y(8, 1), y(10, 3), y(9, 1), y(11, 1), y(8, 1), y(7), 377)\}) \wedge \\
& \forall_{\{x(5,12), x(82,12), x(159,12), x(236,12), x(313,12), x(390,12)\}} (\{\text{Faux6}(\text{True}, x(5, 12), x(390, 12), \\
& \quad x(313, 12), x(236, 12), x(159, 12), x(82, 12), y(5), 146), \\
& \quad \text{Faux6}(\text{True}, y(10, 1), y(8, 3), y(11, 1), y(8, 1), y(8, 1), y(7), y(5), 390)\} \vee \\
& \quad \{\text{P1}(\text{False}, x(5, 12), x(390, 12), x(313, 12), x(236, 12), x(159, 12), x(82, 12), 147), \\
& \quad \text{P1}(\text{False}, y(10, 1), y(8, 3), y(11, 1), y(8, 1), y(8, 1), y(7), 391)\}) \wedge \\
& \forall_{\{x(5,13), x(82,13), x(159,13), x(236,13), x(313,13), x(390,13)\}} (\{\text{Faux6}(\text{True}, x(5, 13), x(390, 13), \\
& \quad x(313, 13), x(236, 13), x(159, 13), x(82, 13), y(5), 146),
\end{aligned}$$

$\text{Faux6}(\text{True}, y(8, 1), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), y(5), 419) \vee$   
 $\{\text{P1}(\text{False}, x(5, 13), x(390, 13), x(313, 13), x(236, 13), x(159, 13), x(82, 13), 147),$   
 $\text{P1}(\text{False}, y(8, 1), y(9, 3), y(8, 1), y(10, 1), y(11, 1), y(7), 420)\} \wedge$   
 $\forall_{\{x(5, 14), x(82, 14), x(159, 14), x(236, 14), x(313, 14), x(390, 14)\}} (\{\text{Faux6}(\text{True}, x(5, 14), x(390, 14),$   
 $x(313, 14), x(236, 14), x(159, 14), x(82, 14), y(5), 146),$   
 $\text{Faux6}(\text{True}, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(8, 1), y(7), y(5), 433) \vee$   
 $\{\text{P1}(\text{False}, x(5, 14), x(390, 14), x(313, 14), x(236, 14), x(159, 14), x(82, 14), 147),$   
 $\text{P1}(\text{False}, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(8, 1), y(7), 434)\} \wedge$   
 $\forall_{\{x(5, 15), x(82, 15), x(159, 15), x(236, 15), x(313, 15), x(390, 15)\}} (\{\text{Faux6}(\text{True}, x(5, 15), x(390, 15),$   
 $x(313, 15), x(236, 15), x(159, 15), x(82, 15), y(5), 146),$   
 $\text{Faux6}(\text{True}, y(8, 1), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), y(5), 476) \vee$   
 $\{\text{P1}(\text{False}, x(5, 15), x(390, 15), x(313, 15), x(236, 15), x(159, 15), x(82, 15), 147),$   
 $\text{P1}(\text{False}, y(8, 1), y(10, 3), y(9, 1), y(11, 1), y(11, 1), y(7), 477)\} \wedge$   
 $\forall_{\{x(5, 16), x(82, 16), x(159, 16), x(236, 16), x(313, 16), x(390, 16)\}} (\{\text{Faux6}(\text{True}, x(5, 16), x(390, 16),$   
 $x(313, 16), x(236, 16), x(159, 16), x(82, 16), y(5), 146),$   
 $\text{Faux6}(\text{True}, y(10, 1), y(11, 3), y(11, 1), y(11, 1), y(8, 1), y(7), y(5), 490) \vee$   
 $\{\text{P1}(\text{False}, x(5, 16), x(390, 16), x(313, 16), x(236, 16), x(159, 16), x(82, 16), 147),$   
 $\text{P1}(\text{False}, y(10, 1), y(11, 3), y(11, 1), y(11, 1), y(8, 1), y(7), 491)\} \wedge$   
 $\forall_{\{x(5, 17), x(82, 17), x(159, 17), x(236, 17), x(313, 17), x(390, 17)\}} (\{\text{Faux6}(\text{True}, x(5, 17), x(390, 17),$   
 $x(313, 17), x(236, 17), x(159, 17), x(82, 17), y(5), 146),$   
 $\text{Faux6}(\text{True}, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(11, 1), y(7), y(5), 533) \vee$   
 $\{\text{P1}(\text{False}, x(5, 17), x(390, 17), x(313, 17), x(236, 17), x(159, 17), x(82, 17), 147),$   
 $\text{P1}(\text{False}, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(11, 1), y(7), 534)\} \wedge$   
 $\forall_{\{x(5, 18), x(82, 18), x(159, 18), x(236, 18), x(313, 18), x(390, 18)\}} (\{\text{Faux6}(\text{True}, x(5, 18), x(390, 18),$   
 $x(313, 18), x(236, 18), x(159, 18), x(82, 18), y(5), 146),$   
 $\text{Faux6}(\text{True}, y(10, 1), y(11, 3), y(11, 1), y(11, 1), y(11, 1), y(7), y(5), 590) \vee$   
 $\{\text{P1}(\text{False}, x(5, 18), x(390, 18), x(313, 18), x(236, 18), x(159, 18), x(82, 18), 147),$   
 $\text{P1}(\text{False}, y(10, 1), y(11, 3), y(11, 1), y(11, 1), y(11, 1), y(7), 591)\} \wedge$   
 $\forall_{\{x(6, 1), x(83, 1), x(160, 1), x(237, 1), x(314, 1), x(391, 1)\}} (\{\text{Faux6}(\text{True}, x(6, 1), x(391, 1),$   
 $x(314, 1), x(237, 1), x(160, 1), x(83, 1), y(4), 148),$   
 $\text{Faux6}(\text{True}, y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(7), y(4), 77) \vee$   
 $\{\text{P2}(\text{False}, x(6, 1), x(391, 1), x(314, 1), x(237, 1), x(160, 1), x(83, 1), 149),$   
 $\text{P2}(\text{False}, y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(7), 78)\} \wedge$   
 $\forall_{\{x(6, 2), x(83, 2), x(160, 2), x(237, 2), x(314, 2), x(391, 2)\}} (\{\text{Faux6}(\text{True}, x(6, 2), x(391, 2),$   
 $x(314, 2), x(237, 2), x(160, 2), x(83, 2), y(4), 148),$   
 $\text{Faux6}(\text{True}, y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(7), y(4), 83) \vee$   
 $\{\text{P2}(\text{False}, x(6, 2), x(391, 2), x(314, 2), x(237, 2), x(160, 2), x(83, 2), 149),$   
 $\text{P2}(\text{False}, y(8, 1), y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(7), 84)\} \wedge$   
 $\forall_{\{x(6, 3), x(83, 3), x(160, 3), x(237, 3), x(314, 3), x(391, 3)\}} (\{\text{Faux6}(\text{True}, x(6, 3), x(391, 3),$   
 $x(314, 3), x(237, 3), x(160, 3), x(83, 3), y(4), 148),$   
 $\text{Faux6}(\text{True}, y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7), y(4), 89) \vee$   
 $\{\text{P2}(\text{False}, x(6, 3), x(391, 3), x(314, 3), x(237, 3), x(160, 3), x(83, 3), 149),$

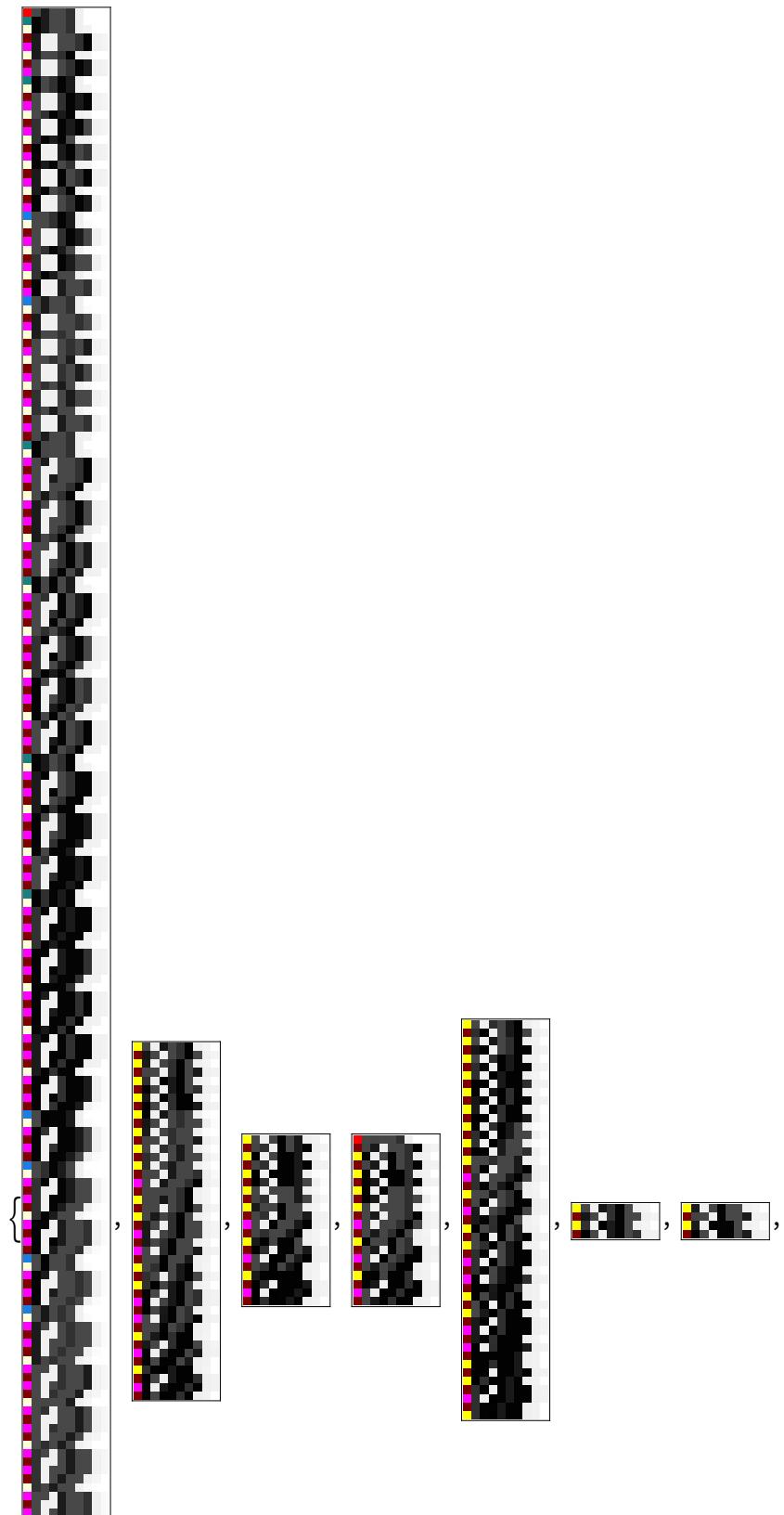
$P2(\text{False}, y(9, 1), y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(7, 90)) \wedge$   
 $\forall_{\{x(6, 4), x(83, 4), x(160, 4), x(237, 4), x(314, 4), x(391, 4)\}} (\{\text{Faux6}(\text{True}, x(6, 4), x(391, 4),$   
 $x(314, 4), x(237, 4), x(160, 4), x(83, 4), y(4), 148),$   
 $\text{Faux6}(\text{True}, y(8, 1), y(8, 2), y(8, 1), y(8, 1), y(10, 1), y(7, y(4), 315)\}) \vee$   
 $\{P2(\text{False}, x(6, 4), x(391, 4), x(314, 4), x(237, 4), x(160, 4), x(83, 4), 149),$   
 $P2(\text{False}, y(8, 1), y(8, 2), y(8, 1), y(8, 1), y(10, 1), y(7, 316)\}) \wedge$   
 $\forall_{\{x(6, 5), x(83, 5), x(160, 5), x(237, 5), x(314, 5), x(391, 5)\}} (\{\text{Faux6}(\text{True}, x(6, 5), x(391, 5),$   
 $x(314, 5), x(237, 5), x(160, 5), x(83, 5), y(4), 148),$   
 $\text{Faux6}(\text{True}, y(8, 1), y(9, 2), y(8, 1), y(10, 1), y(8, 1), y(7, y(4), 325)\}) \vee$   
 $\{P2(\text{False}, x(6, 5), x(391, 5), x(314, 5), x(237, 5), x(160, 5), x(83, 5), 149),$   
 $P2(\text{False}, y(8, 1), y(9, 2), y(8, 1), y(10, 1), y(8, 1), y(7, 326)\}) \wedge$   
 $\forall_{\{x(6, 6), x(83, 6), x(160, 6), x(237, 6), x(314, 6), x(391, 6)\}} (\{\text{Faux6}(\text{True}, x(6, 6), x(391, 6),$   
 $x(314, 6), x(237, 6), x(160, 6), x(83, 6), y(4), 148),$   
 $\text{Faux6}(\text{True}, y(9, 1), y(8, 2), y(10, 1), y(8, 1), y(8, 1), y(7, y(4), 335)\}) \vee$   
 $\{P2(\text{False}, x(6, 6), x(391, 6), x(314, 6), x(237, 6), x(160, 6), x(83, 6), 149),$   
 $P2(\text{False}, y(9, 1), y(8, 2), y(10, 1), y(8, 1), y(8, 1), y(7, 336)\}) \wedge$   
 $\forall_{\{x(7, 1), x(84, 1), x(161, 1), x(238, 1), x(315, 1), x(392, 1)\}} (\{\text{Faux6}(\text{True}, x(7, 1), x(392, 1),$   
 $x(315, 1), x(238, 1), x(161, 1), x(84, 1), y(3), 150),$   
 $\text{Faux6}(\text{True}, y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7, y(3), 95)\}) \vee$   
 $\{P3(\text{False}, x(7, 1), x(392, 1), x(315, 1), x(238, 1), x(161, 1), x(84, 1), 151),$   
 $P3(\text{False}, y(8, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7, 96)\}) \wedge$   
 $\forall_{\{x(7, 2), x(84, 2), x(161, 2), x(238, 2), x(315, 2), x(392, 2)\}} (\{\text{Faux6}(\text{True}, x(7, 2), x(392, 2),$   
 $x(315, 2), x(238, 2), x(161, 2), x(84, 2), y(3), 150),$   
 $\text{Faux6}(\text{True}, y(8, 1), y(8, 2), y(8, 1), y(8, 1), y(9, 1), y(7, y(3), 345)\}) \vee$   
 $\{P3(\text{False}, x(7, 2), x(392, 2), x(315, 2), x(238, 2), x(161, 2), x(84, 2), 151),$   
 $P3(\text{False}, y(8, 1), y(8, 2), y(8, 1), y(8, 1), y(9, 1), y(7, 346)\}) \wedge$   
 $\forall_{\{x(8, 1), x(85, 1), x(162, 1), x(239, 1), x(316, 1), x(393, 1)\}} (\{\text{Faux6}(\text{True}, x(8, 1), x(393, 1),$   
 $x(316, 1), x(239, 1), x(162, 1), x(85, 1), y(2), 152),$   
 $\text{Faux6}(\text{True}, y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7, y(2), 45)\}) \vee$   
 $\{P4(\text{False}, x(8, 1), x(393, 1), x(316, 1), x(239, 1), x(162, 1), x(85, 1), 153),$   
 $P4(\text{False}, y(11, 1), y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(7, 46)\}) \wedge$   
 $\forall_{\{x(8, 2), x(85, 2), x(162, 2), x(239, 2), x(316, 2), x(393, 2)\}} (\{\text{Faux6}(\text{True}, x(8, 2), x(393, 2),$   
 $x(316, 2), x(239, 2), x(162, 2), x(85, 2), y(2), 152),$   
 $\text{Faux6}(\text{True}, y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(7, y(2), 52)\}) \vee$   
 $\{P4(\text{False}, x(8, 2), x(393, 2), x(316, 2), x(239, 2), x(162, 2), x(85, 2), 153),$   
 $P4(\text{False}, y(8, 1), y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(7, 53)\}) \wedge$   
 $\forall_{\{x(8, 3), x(85, 3), x(162, 3), x(239, 3), x(316, 3), x(393, 3)\}} (\{\text{Faux6}(\text{True}, x(8, 3), x(393, 3),$   
 $x(316, 3), x(239, 3), x(162, 3), x(85, 3), y(2), 152),$   
 $\text{Faux6}(\text{True}, y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7, y(2), 58)\}) \vee$   
 $\{P4(\text{False}, x(8, 3), x(393, 3), x(316, 3), x(239, 3), x(162, 3), x(85, 3), 153),$   
 $P4(\text{False}, y(9, 1), y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(7, 59)\}) \wedge$   
 $\forall_{\{x(8, 4), x(85, 4), x(162, 4), x(239, 4), x(316, 4), x(393, 4)\}} (\{\text{Faux6}(\text{True}, x(8, 4), x(393, 4),$

```

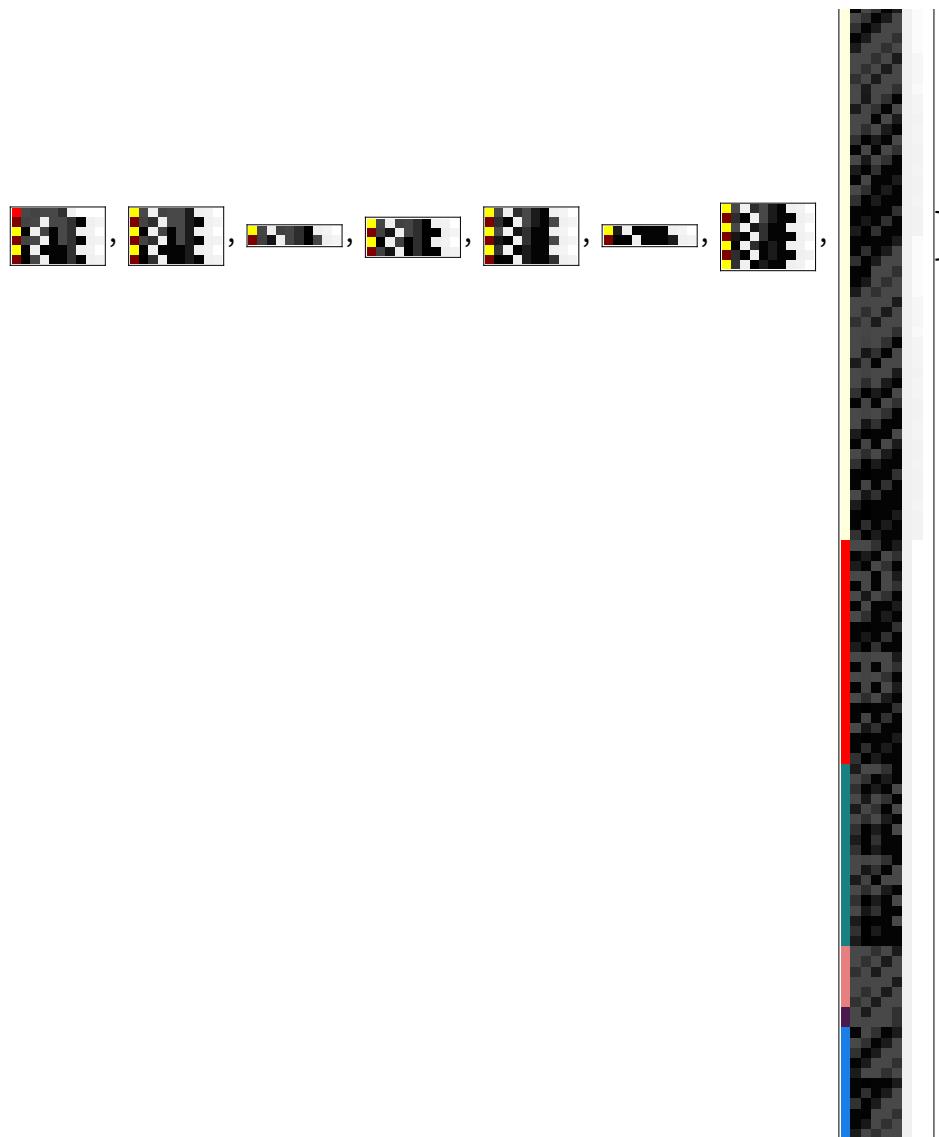
x(316, 4), x(239, 4), x(162, 4), x(85, 4), y(2), 152),
Faux6(True, y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 64} v
{P4(False, x(8, 4), x(393, 4), x(316, 4), x(239, 4), x(162, 4), x(85, 4), 153),
P4(False, y(11, 1), y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(7), 65})} &
V{x(8,5),x(85,5),x(162,5),x(239,5),x(316,5),x(393,5)} ({Faux6(True, x(8, 5), x(393, 5),
x(316, 5), x(239, 5), x(162, 5), x(85, 5), y(2), 152),
Faux6(True, y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 71} v
{P4(False, x(8, 5), x(393, 5), x(316, 5), x(239, 5), x(162, 5), x(85, 5), 153),
P4(False, y(10, 1), y(8, 1), y(8, 1), y(9, 1), y(8, 1), y(7), 72})} &
V{x(8,6),x(85,6),x(162,6),x(239,6),x(316,6),x(393,6)} ({Faux6(True, x(8, 6), x(393, 6),
x(316, 6), x(239, 6), x(162, 6), x(85, 6), y(2), 152),
Faux6(True, y(11, 1), y(11, 2), y(11, 1), y(11, 1), y(10, 1), y(7), y(2), 251} v
{P4(False, x(8, 6), x(393, 6), x(316, 6), x(239, 6), x(162, 6), x(85, 6), 153),
P4(False, y(11, 1), y(11, 2), y(11, 1), y(11, 1), y(10, 1), y(7), 252})} &
V{x(8,7),x(85,7),x(162,7),x(239,7),x(316,7),x(393,7)} ({Faux6(True, x(8, 7), x(393, 7),
x(316, 7), x(239, 7), x(162, 7), x(85, 7), y(2), 152),
Faux6(True, y(11, 1), y(9, 2), y(11, 1), y(10, 1), y(8, 1), y(7), y(2), 262} v
{P4(False, x(8, 7), x(393, 7), x(316, 7), x(239, 7), x(162, 7), x(85, 7), 153),
P4(False, y(11, 1), y(9, 2), y(11, 1), y(10, 1), y(8, 1), y(7), 263})} &
V{x(8,8),x(85,8),x(162,8),x(239,8),x(316,8),x(393,8)} ({Faux6(True, x(8, 8), x(393, 8),
x(316, 8), x(239, 8), x(162, 8), x(85, 8), y(2), 152),
Faux6(True, y(9, 1), y(11, 2), y(10, 1), y(8, 1), y(8, 1), y(7), y(2), 273} v
{P4(False, x(8, 8), x(393, 8), x(316, 8), x(239, 8), x(162, 8), x(85, 8), 153),
P4(False, y(9, 1), y(11, 2), y(10, 1), y(8, 1), y(8, 1), y(7), 274})} &
V{x(8,9),x(85,9),x(162,9),x(239,9),x(316,9),x(393,9)} ({Faux6(True, x(8, 9), x(393, 9),
x(316, 9), x(239, 9), x(162, 9), x(85, 9), y(2), 152),
Faux6(True, y(11, 1), y(11, 2), y(8, 1), y(8, 1), y(9, 1), y(7), y(2), 283} v
{P4(False, x(8, 9), x(393, 9), x(316, 9), x(239, 9), x(162, 9), x(85, 9), 153),
P4(False, y(11, 1), y(11, 2), y(8, 1), y(8, 1), y(9, 1), y(7), 284})} &
V{x(8,10),x(85,10),x(162,10),x(239,10),x(316,10),x(393,10)} ({Faux6(True, x(8, 10), x(393, 10),
x(316, 10), x(239, 10), x(162, 10), x(85, 10), y(2), 152),
Faux6(True, y(11, 1), y(10, 2), y(8, 1), y(9, 1), y(8, 1), y(7), y(2), 294} v
{P4(False, x(8, 10), x(393, 10), x(316, 10), x(239, 10), x(162, 10), x(85, 10), 153),
P4(False, y(11, 1), y(10, 2), y(8, 1), y(9, 1), y(8, 1), y(7), 295})} &
V{x(8,11),x(85,11),x(162,11),x(239,11),x(316,11),x(393,11)} ({Faux6(True, x(8, 11), x(393, 11),
x(316, 11), x(239, 11), x(162, 11), x(85, 11), y(2), 152),
Faux6(True, y(10, 1), y(8, 2), y(9, 1), y(8, 1), y(8, 1), y(7), y(2), 305} v
{P4(False, x(8, 11), x(393, 11), x(316, 11), x(239, 11), x(162, 11), x(85, 11), 153),
P4(False, y(10, 1), y(8, 2), y(9, 1), y(8, 1), y(8, 1), y(7), 306})} &
V{x(10),x(87),x(164),x(241),x(318)} {H(True, x(10), x(318), x(241), x(164), x(87), y(7), 156),
H(True, y(9, 1), y(11, 3), y(10, 1), y(11, 1), y(11, 1), y(7), 634)})}

```

The NNF-C. proof up to 660  
steps (splitting expressions + rest separated) as color diagram:







No immediately repeating unification sequence.

Loop Criterion Tableau not satisfied.

No splitting duplicates.

No immediate sequence of isomorphic non-splitting expressions.

Loop Criterion NNF not satisfied.

Out[16]= {34.6125, False}