

the 0 th Minimal Constraint set is:

$$\begin{aligned} &[x^{0_5}] + x^{1_{13}} + k_{0_5} = 0 \\ &x^{1_{13}} + y^{1_6} + [x^{2_7}] + k_{1_7} = 0 \\ &x^{1_6} + x^{2_{14}} + k_{1_6} = 0 \\ &x^{2_{14}} + y^{2_1} + x^{3_0} + k_{2_0} = 0 \\ &x^{2_1} + x^{3_9} + k_{2_1} = 0 \\ &[x^{2_5}] + x^{3_{13}} + k_{2_5} = 0 \\ &x^{3_9} + y^{3_2} + x^{4_3} + k_{3_3} = 0 \\ &x^{3_{13}} + [y^{3_6}] + x^{4_7} + k_{3_7} = 0 \\ &x^{3_0} + x^{4_8} + k_{3_0} = 0 \\ &x^{3_2} + x^{4_{10}} + k_{3_2} = 0 \\ &[x^{3_5}] + x^{4_{13}} + k_{3_5} = 0 \\ &[x^{3_6}] + x^{4_{14}} + k_{3_6} = 0 \\ &x^{4_{14}} + [y^{4_1}] + x^{5_0} + k_{4_0} = 0 \\ &x^{4_8} + y^{4_0} + x^{5_2} + k_{4_2} = 0 \\ &x^{4_{10}} + y^{4_5} + x^{5_4} + k_{4_4} = 0 \\ &x^{4_{13}} + [y^{4_6}] + x^{5_7} + k_{4_7} = 0 \\ &x^{4_0} + x^{5_8} + k_{4_0} = 0 \\ &x^{4_3} + x^{5_{11}} + k_{4_3} = 0 \\ &x^{4_5} + x^{5_{13}} + k_{4_5} = 0 \\ &x^{4_7} + x^{5_{15}} + k_{4_7} = 0 \\ &x^{5_{15}} + y^{5_3} + x^{6_1} + k_{5_1} = 0 \\ &x^{5_8} + y^{5_0} + x^{6_2} + k_{5_2} = 0 \\ &x^{5_{11}} + y^{5_7} + x^{6_5} + k_{5_5} = 0 \\ &x^{5_{13}} + y^{5_6} + x^{6_7} + k_{5_7} = 0 \\ &x^{5_2} + x^{6_{10}} + k_{5_2} = 0 \\ &x^{5_3} + x^{6_{11}} + k_{5_3} = 0 \\ &x^{5_4} + x^{6_{12}} + k_{5_4} = 0 \\ &x^{5_6} + x^{6_{14}} + k_{5_6} = 0 \\ &x^{6_{14}} + y^{6_1} + x^{7_0} + k_{6_0} = 0 \\ &x^{6_{10}} + y^{6_5} + x^{7_4} + k_{6_4} = 0 \\ &x^{6_{11}} + y^{6_7} + x^{7_5} + k_{6_5} = 0 \\ &x^{6_{12}} + y^{6_4} + x^{7_6} + k_{6_6} = 0 \\ &x^{6_2} + x^{7_{10}} + k_{6_2} = 0 \\ &x^{6_4} + x^{7_{12}} + k_{6_4} = 0 \\ &[x^{6_6}] + x^{7_{14}} + k_{6_6} = 0 \\ &x^{7_{14}} + [y^{7_1}] + x^{8_0} + k_{7_0} = 0 \\ &x^{7_{10}} + y^{7_5} + x^{8_4} + k_{7_4} = 0 \\ &x^{7_{12}} + y^{7_4} + x^{8_6} + k_{7_6} = 0 \\ &x^{7_0} + x^{8_8} + k_{7_0} = 0 \\ &[x^{7_2}] + x^{8_{10}} + k_{7_2} = 0 \\ &x^{7_6} + x^{8_{14}} + k_{7_6} = 0 \\ &[x^{7_7}] + x^{8_{15}} + k_{7_7} = 0 \\ &x^{8_{14}} + y^{8_1} + x^{9_0} + k_{8_0} = 0 \end{aligned}$$

$$\begin{aligned}
&x^8_{15} + [y^8_3] + x^9_1 + k_{8_1} = 0 \\
&x^8_8 + y^8_0 + x^9_2 + k_{8_2} = 0 \\
&x^8_{10} + [y^8_5] + x^9_4 + k_{8_4} = 0 \\
&x^8_1 + x^9_9 + k_{8_1} = 0 \\
&[x^8_2] + x^9_{10} + k_{8_2} = 0 \\
&x^8_4 + x^9_{12} + k_{8_4} = 0 \\
&x^8_6 + x^9_{14} + k_{8_6} = 0 \\
&x^9_{14} + y^9_1 + x^{10}_0 + k_{9_0} = 0 \\
&x^9_9 + y^9_2 + x^{10}_3 + k_{9_3} = 0 \\
&x^9_{10} + y^9_5 + [x^{10}_4] + k_{9_4} = 0 \\
&x^9_{12} + y^9_4 + x^{10}_6 + k_{9_6} = 0 \\
&x^9_0 + x^{10}_8 + k_{9_0} = 0 \\
&x^9_5 + x^{10}_{13} + k_{9_5} = 0 \\
&x^{10}_8 + y^{10}_0 + x^{11}_2 + k_{10_2} = 0 \\
&x^{10}_{13} + y^{10}_6 + x^{11}_7 + k_{10_7} = 0 \\
&x^{10}_3 + x^{11}_{11} + k_{10_3} = 0 \\
&x^{11}_{11} + y^{11}_7 + x^{12}_5 + k_{11_5} = 0 \\
&x^{11}_2 + x^{12}_{10} + k_{11_2} = 0 \\
&x^{12}_{10} + y^{12}_5 + x^{13}_4 + k_{12_4} = 0 \\
&[x^{12}_4] + x^{13}_{12} + k_{12_4} = 0 \\
&x^{13}_{12} + y^{13}_4 + [x^{14}_6] + k_{13_6} = 0 \\
&S(x^1_6) + y^1_6 = 0 \\
&S(x^2_1) + y^2_1 = 0 \\
&S(x^3_2) + y^3_2 = 0 \\
&S(x^4_0) + y^4_0 = 0 \\
&S(x^4_5) + y^4_5 = 0 \\
&S(x^5_0) + y^5_0 = 0 \\
&S(x^5_3) + y^5_3 = 0 \\
&S(x^5_6) + y^5_6 = 0 \\
&S(x^5_7) + y^5_7 = 0 \\
&S(x^6_1) + y^6_1 = 0 \\
&S(x^6_4) + y^6_4 = 0 \\
&S(x^6_5) + y^6_5 = 0 \\
&S(x^6_7) + y^6_7 = 0 \\
&S(x^7_4) + y^7_4 = 0 \\
&S(x^7_5) + y^7_5 = 0 \\
&S(x^8_0) + y^8_0 = 0 \\
&S(x^8_1) + y^8_1 = 0 \\
&S(x^9_1) + y^9_1 = 0 \\
&S(x^9_2) + y^9_2 = 0 \\
&S(x^9_4) + y^9_4 = 0 \\
&S(x^9_5) + y^9_5 = 0 \\
&S(x^{10}_0) + y^{10}_0 = 0 \\
&S(x^{10}_6) + y^{10}_6 = 0
\end{aligned}$$

$$S(x^{11}_7) + y^{11}_7 = 0$$

$$S(x^{12}_5) + y^{12}_5 = 0$$

$$S(x^{13}_4) + y^{13}_4 = 0$$

the 1 th Minimal Constraint set is:

$$[x^7_7] + x^{8}_{15} + k_{7_7} = 0$$

$$x^{8}_{15} + [y^8_3] + x^9_1 + k_{8_1} = 0$$

$$x^9_1 + x^{10}_9 + k_{9_1} = 0$$

$$x^{10}_9 + y^{10}_2 + x^{11}_3 + k_{10_3} = 0$$

$$x^{10}_2 + x^{11}_{10} + k_{10_2} = 0$$

$$[x^{10}_5] + x^{11}_{13} + k_{10_5} = 0$$

$$x^{11}_{10} + [y^{11}_5] + [x^{12}_4] + k_{11_4} = 0$$

$$x^{11}_{13} + [y^{11}_6] + x^{12}_7 + k_{11_7} = 0$$

$$x^{11}_3 + x^{12}_{11} + k_{11_3} = 0$$

$$x^{12}_{11} + y^{12}_7 + x^{13}_5 + k_{12_5} = 0$$

$$x^{13}_5 + x^{14}_{13} + k_{13_5} = 0$$

$$x^{14}_{13} + [y^{14}_6] + [x^{15}_7] + k_{14_7} = 0$$

$$S(x^{10}_2) + y^{10}_2 = 0$$

$$S(x^{12}_7) + y^{12}_7 = 0$$

the 2 th Minimal Constraint set is:

$$[x^0_3] + x^1_{11} + k_{0_3} = 0$$

$$[x^0_5] + x^1_{13} + k_{0_5} = 0$$

$$x^1_{11} + y^1_7 + [x^2_5] + k_{1_5} = 0$$

$$x^1_{13} + y^1_6 + [x^2_7] + k_{1_7} = 0$$

$$x^1_6 + x^2_{14} + k_{1_6} = 0$$

$$x^1_7 + x^2_{15} + k_{1_7} = 0$$

$$x^2_{14} + y^2_1 + x^3_0 + k_{2_0} = 0$$

$$x^2_{15} + y^2_3 + x^3_1 + k_{2_1} = 0$$

$$x^2_1 + x^3_9 + k_{2_1} = 0$$

$$x^2_3 + x^3_{11} + k_{2_3} = 0$$

$$[x^2_7] + x^3_{15} + k_{2_7} = 0$$

$$x^3_{15} + y^3_3 + [x^4_1] + k_{3_1} = 0$$

$$x^3_9 + y^3_2 + x^4_3 + k_{3_3} = 0$$

$$x^3_{11} + y^3_7 + x^4_5 + k_{3_5} = 0$$

$$x^3_0 + x^4_8 + k_{3_0} = 0$$

$$x^3_1 + x^4_9 + k_{3_1} = 0$$

$$x^3_2 + x^4_{10} + k_{3_2} = 0$$

$$x^3_3 + x^4_{11} + k_{3_3} = 0$$

$$[x^3_4] + x^4_{12} + k_{3_4} = 0$$

$$[x^3_6] + x^4_{14} + k_{3_6} = 0$$

$$x^3_7 + x^4_{15} + k_{3_7} = 0$$

$$x^4_{14} + [y^4_1] + x^5_0 + k_{4_0} = 0$$

$$x^4_{15} + y^4_3 + x^5_1 + k_{4_1} = 0$$

$$x^4_8 + y^4_0 + x^5_2 + k_{4_2} = 0$$

$$x^4_9 + y^4_2 + x^5_3 + k_{4_3} = 0$$

$$\begin{aligned}
&x^4_{10} + y^4_{5} + x^5_{4} + k_{4_4} = 0 \\
&x^4_{11} + y^4_{7} + x^5_{5} + k_{4_5} = 0 \\
&x^4_{12} + [y^4_{4}] + x^5_{6} + k_{4_6} = 0 \\
&x^4_{0} + x^5_{8} + k_{4_0} = 0 \\
&x^4_{2} + x^5_{10} + k_{4_2} = 0 \\
&[x^4_{4}] + x^5_{12} + k_{4_4} = 0 \\
&[x^4_{6}] + x^5_{14} + k_{4_6} = 0 \\
&x^4_{7} + x^5_{15} + k_{4_7} = 0 \\
&x^5_{14} + y^5_{1} + [x^6_{0}] + k_{5_0} = 0 \\
&x^5_{15} + y^5_{3} + x^6_{1} + k_{5_1} = 0 \\
&x^5_{8} + y^5_{0} + x^6_{2} + k_{5_2} = 0 \\
&x^5_{10} + y^5_{5} + x^6_{4} + k_{5_4} = 0 \\
&x^5_{12} + y^5_{4} + [x^6_{6}] + k_{5_6} = 0 \\
&x^5_{2} + x^6_{10} + k_{5_2} = 0 \\
&x^5_{6} + x^6_{14} + k_{5_6} = 0 \\
&x^6_{14} + y^6_{1} + x^7_{0} + k_{6_0} = 0 \\
&x^6_{10} + y^6_{5} + x^7_{4} + k_{6_4} = 0 \\
&x^6_{2} + x^7_{10} + k_{6_2} = 0 \\
&x^6_{4} + x^7_{12} + k_{6_4} = 0 \\
&x^6_{5} + x^7_{13} + k_{6_5} = 0 \\
&x^7_{10} + y^7_{5} + x^8_{4} + k_{7_4} = 0 \\
&x^7_{12} + y^7_{4} + x^8_{6} + k_{7_6} = 0 \\
&x^7_{13} + y^7_{6} + x^8_{7} + k_{7_7} = 0 \\
&x^7_{0} + x^8_{8} + k_{7_0} = 0 \\
&[x^7_{1}] + x^8_{9} + k_{7_1} = 0 \\
&[x^7_{2}] + x^8_{10} + k_{7_2} = 0 \\
&x^7_{5} + x^8_{13} + k_{7_5} = 0 \\
&x^7_{6} + x^8_{14} + k_{7_6} = 0 \\
&x^8_{14} + y^8_{1} + x^9_{0} + k_{8_0} = 0 \\
&x^8_{8} + y^8_{0} + x^9_{2} + k_{8_2} = 0 \\
&x^8_{9} + [y^8_{2}] + x^9_{3} + k_{8_3} = 0 \\
&x^8_{10} + [y^8_{5}] + x^9_{4} + k_{8_4} = 0 \\
&x^8_{13} + y^8_{6} + x^9_{7} + k_{8_7} = 0 \\
&x^8_{0} + x^9_{8} + k_{8_0} = 0 \\
&x^8_{1} + x^9_{9} + k_{8_1} = 0 \\
&x^8_{4} + x^9_{12} + k_{8_4} = 0 \\
&[x^8_{5}] + x^9_{13} + k_{8_5} = 0 \\
&x^8_{7} + x^9_{15} + k_{8_7} = 0 \\
&x^9_{15} + y^9_{3} + x^{10}_{1} + k_{9_1} = 0 \\
&x^9_{8} + y^9_{0} + x^{10}_{2} + k_{9_2} = 0 \\
&x^9_{9} + y^9_{2} + x^{10}_{3} + k_{9_3} = 0 \\
&x^9_{12} + y^9_{4} + x^{10}_{6} + k_{9_6} = 0 \\
&x^9_{13} + y^9_{6} + [x^{10}_{7}] + k_{9_7} = 0 \\
&x^9_{6} + x^{10}_{14} + k_{9_6} = 0
\end{aligned}$$

$$\begin{aligned}
& x^{9_7} + x^{10_{15}} + k_{9_7} = 0 \\
& x^{10_{14}} + y^{10_1} + x^{11_0} + k_{10_0} = 0 \\
& x^{10_{15}} + y^{10_3} + x^{11_1} + k_{10_1} = 0 \\
& x^{10_2} + x^{11_{10}} + k_{10_2} = 0 \\
& x^{10_6} + x^{11_{14}} + k_{10_6} = 0 \\
& x^{11_{14}} + y^{11_1} + x^{12_0} + k_{11_0} = 0 \\
& x^{11_{10}} + [y^{11_5}] + [x^{12_4}] + k_{11_4} = 0 \\
& x^{11_0} + x^{12_8} + k_{11_0} = 0 \\
& x^{12_8} + y^{12_0} + x^{13_2} + k_{12_2} = 0 \\
& x^{13_2} + x^{14_{10}} + k_{13_2} = 0 \\
& x^{14_{10}} + [y^{14_5}] + [x^{15_4}] + k_{14_4} = 0 \\
& S(x^{1_6}) + y^{1_6} = 0 \\
& S(x^{1_7}) + y^{1_7} = 0 \\
& S(x^{2_1}) + y^{2_1} = 0 \\
& S(x^{2_3}) + y^{2_3} = 0 \\
& S(x^{3_2}) + y^{3_2} = 0 \\
& S(x^{3_3}) + y^{3_3} = 0 \\
& S(x^{3_7}) + y^{3_7} = 0 \\
& S(x^{4_0}) + y^{4_0} = 0 \\
& S(x^{4_2}) + y^{4_2} = 0 \\
& S(x^{4_3}) + y^{4_3} = 0 \\
& S(x^{4_5}) + y^{4_5} = 0 \\
& S(x^{4_7}) + y^{4_7} = 0 \\
& S(x^{5_0}) + y^{5_0} = 0 \\
& S(x^{5_1}) + y^{5_1} = 0 \\
& S(x^{5_3}) + y^{5_3} = 0 \\
& S(x^{5_4}) + y^{5_4} = 0 \\
& S(x^{5_5}) + y^{5_5} = 0 \\
& S(x^{6_1}) + y^{6_1} = 0 \\
& S(x^{6_5}) + y^{6_5} = 0 \\
& S(x^{7_4}) + y^{7_4} = 0 \\
& S(x^{7_5}) + y^{7_5} = 0 \\
& S(x^{7_6}) + y^{7_6} = 0 \\
& S(x^{8_0}) + y^{8_0} = 0 \\
& S(x^{8_1}) + y^{8_1} = 0 \\
& S(x^{8_6}) + y^{8_6} = 0 \\
& S(x^{9_0}) + y^{9_0} = 0 \\
& S(x^{9_2}) + y^{9_2} = 0 \\
& S(x^{9_3}) + y^{9_3} = 0 \\
& S(x^{9_4}) + y^{9_4} = 0 \\
& S(x^{9_6}) + y^{9_6} = 0 \\
& S(x^{10_1}) + y^{10_1} = 0 \\
& S(x^{10_3}) + y^{10_3} = 0 \\
& S(x^{11_1}) + y^{11_1} = 0
\end{aligned}$$

$$S(x^{12}_0) + y^{12}_0 = 0$$

the 3 th Minimal Constraint set is:

$$[x^0_3] + x^{11}_1 + k_{0_3} = 0$$

$$[x^0_5] + x^{13}_1 + k_{0_5} = 0$$

$$x^{11}_1 + y^{17}_1 + [x^2_5] + k_{1_5} = 0$$

$$x^{13}_1 + y^{16}_1 + [x^2_7] + k_{1_7} = 0$$

$$x^{16}_1 + x^{214}_2 + k_{1_6} = 0$$

$$x^{17}_1 + x^{215}_2 + k_{1_7} = 0$$

$$x^{214}_2 + y^{21}_2 + x^{30}_3 + k_{2_0} = 0$$

$$x^{215}_2 + y^{23}_2 + x^{31}_3 + k_{2_1} = 0$$

$$x^{21}_2 + x^{39}_3 + k_{2_1} = 0$$

$$x^{23}_2 + x^{311}_3 + k_{2_3} = 0$$

$$[x^2_7] + x^{315}_3 + k_{2_7} = 0$$

$$x^{315}_3 + y^{33}_3 + [x^4_1] + k_{3_1} = 0$$

$$x^{39}_3 + y^{32}_3 + x^{43}_4 + k_{3_3} = 0$$

$$x^{311}_3 + y^{37}_3 + x^{45}_4 + k_{3_5} = 0$$

$$x^{30}_3 + x^{48}_4 + k_{3_0} = 0$$

$$x^{31}_3 + x^{49}_4 + k_{3_1} = 0$$

$$x^{32}_3 + x^{410}_4 + k_{3_2} = 0$$

$$x^{33}_3 + x^{411}_4 + k_{3_3} = 0$$

$$[x^3_4] + x^{412}_4 + k_{3_4} = 0$$

$$[x^3_6] + x^{414}_4 + k_{3_6} = 0$$

$$x^{37}_3 + x^{415}_4 + k_{3_7} = 0$$

$$x^{414}_4 + [y^4_1] + x^{50}_5 + k_{4_0} = 0$$

$$x^{415}_4 + y^{43}_4 + x^{51}_5 + k_{4_1} = 0$$

$$x^{48}_4 + y^{40}_4 + x^{52}_5 + k_{4_2} = 0$$

$$x^{49}_4 + y^{42}_4 + x^{53}_5 + k_{4_3} = 0$$

$$x^{410}_4 + y^{45}_4 + x^{54}_5 + k_{4_4} = 0$$

$$x^{411}_4 + y^{47}_4 + x^{55}_5 + k_{4_5} = 0$$

$$x^{412}_4 + [y^4_4] + x^{56}_5 + k_{4_6} = 0$$

$$x^{40}_4 + x^{58}_5 + k_{4_0} = 0$$

$$x^{42}_4 + x^{510}_5 + k_{4_2} = 0$$

$$[x^4_4] + x^{512}_5 + k_{4_4} = 0$$

$$[x^4_6] + x^{514}_5 + k_{4_6} = 0$$

$$x^{47}_4 + x^{515}_5 + k_{4_7} = 0$$

$$x^{514}_5 + y^{51}_5 + [x^6_0] + k_{5_0} = 0$$

$$x^{515}_5 + y^{53}_5 + x^{61}_6 + k_{5_1} = 0$$

$$x^{58}_5 + y^{50}_5 + x^{62}_6 + k_{5_2} = 0$$

$$x^{510}_5 + y^{55}_5 + x^{64}_6 + k_{5_4} = 0$$

$$x^{512}_5 + y^{54}_5 + [x^6_6] + k_{5_6} = 0$$

$$x^{52}_5 + x^{610}_6 + k_{5_2} = 0$$

$$x^{56}_5 + x^{614}_6 + k_{5_6} = 0$$

$$x^{614}_6 + y^{61}_6 + x^{70}_7 + k_{6_0} = 0$$

$$x^{610}_6 + y^{65}_6 + x^{74}_7 + k_{6_4} = 0$$

$$\begin{aligned}
&x^6_2 + x^7_{10} + k_{6_2} = 0 \\
&x^6_4 + x^7_{12} + k_{6_4} = 0 \\
&x^6_5 + x^7_{13} + k_{6_5} = 0 \\
&x^7_{10} + y^7_5 + x^8_4 + k_{7_4} = 0 \\
&x^7_{12} + y^7_4 + x^8_6 + k_{7_6} = 0 \\
&x^7_{13} + y^7_6 + x^8_7 + k_{7_7} = 0 \\
&x^7_0 + x^8_8 + k_{7_0} = 0 \\
&[x^7_1] + x^8_9 + k_{7_1} = 0 \\
&[x^7_2] + x^8_{10} + k_{7_2} = 0 \\
&x^7_5 + x^8_{13} + k_{7_5} = 0 \\
&x^7_6 + x^8_{14} + k_{7_6} = 0 \\
&x^8_{14} + y^8_1 + x^9_0 + k_{8_0} = 0 \\
&x^8_8 + y^8_0 + x^9_2 + k_{8_2} = 0 \\
&x^8_9 + [y^8_2] + x^9_3 + k_{8_3} = 0 \\
&x^8_{10} + [y^8_5] + x^9_4 + k_{8_4} = 0 \\
&x^8_{13} + y^8_6 + x^9_7 + k_{8_7} = 0 \\
&x^8_0 + x^9_8 + k_{8_0} = 0 \\
&x^8_1 + x^9_9 + k_{8_1} = 0 \\
&x^8_4 + x^9_{12} + k_{8_4} = 0 \\
&[x^8_5] + x^9_{13} + k_{8_5} = 0 \\
&x^8_7 + x^9_{15} + k_{8_7} = 0 \\
&x^9_{15} + y^9_3 + x^{10}_1 + k_{9_1} = 0 \\
&x^9_8 + y^9_0 + x^{10}_2 + k_{9_2} = 0 \\
&x^9_9 + y^9_2 + x^{10}_3 + k_{9_3} = 0 \\
&x^9_{12} + y^9_4 + x^{10}_6 + k_{9_6} = 0 \\
&x^9_{13} + y^9_6 + [x^{10}_7] + k_{9_7} = 0 \\
&x^9_6 + x^{10}_{14} + k_{9_6} = 0 \\
&x^9_7 + x^{10}_{15} + k_{9_7} = 0 \\
&x^{10}_{14} + y^{10}_1 + x^{11}_0 + k_{10_0} = 0 \\
&x^{10}_{15} + y^{10}_3 + x^{11}_1 + k_{10_1} = 0 \\
&x^{10}_2 + x^{11}_{10} + k_{10_2} = 0 \\
&x^{10}_6 + x^{11}_{14} + k_{10_6} = 0 \\
&x^{11}_{14} + y^{11}_1 + x^{12}_0 + k_{11_0} = 0 \\
&x^{11}_{10} + [y^{11}_5] + [x^{12}_4] + k_{11_4} = 0 \\
&x^{11}_0 + x^{12}_8 + k_{11_0} = 0 \\
&x^{12}_8 + y^{12}_0 + x^{13}_2 + k_{12_2} = 0 \\
&[x^{12}_1] + x^{13}_9 + k_{12_1} = 0 \\
&x^{13}_9 + y^{13}_2 + [x^{14}_3] + k_{13_3} = 0 \\
&S(x^1_6) + y^1_6 = 0 \\
&S(x^1_7) + y^1_7 = 0 \\
&S(x^2_1) + y^2_1 = 0 \\
&S(x^2_3) + y^2_3 = 0 \\
&S(x^3_2) + y^3_2 = 0 \\
&S(x^3_3) + y^3_3 = 0
\end{aligned}$$

$$S(x^{3_7}) + y^{3_7} = 0$$

$$S(x^{4_0}) + y^{4_0} = 0$$

$$S(x^{4_2}) + y^{4_2} = 0$$

$$S(x^{4_3}) + y^{4_3} = 0$$

$$S(x^{4_5}) + y^{4_5} = 0$$

$$S(x^{4_7}) + y^{4_7} = 0$$

$$S(x^{5_0}) + y^{5_0} = 0$$

$$S(x^{5_1}) + y^{5_1} = 0$$

$$S(x^{5_3}) + y^{5_3} = 0$$

$$S(x^{5_4}) + y^{5_4} = 0$$

$$S(x^{5_5}) + y^{5_5} = 0$$

$$S(x^{6_1}) + y^{6_1} = 0$$

$$S(x^{6_5}) + y^{6_5} = 0$$

$$S(x^{7_4}) + y^{7_4} = 0$$

$$S(x^{7_5}) + y^{7_5} = 0$$

$$S(x^{7_6}) + y^{7_6} = 0$$

$$S(x^{8_0}) + y^{8_0} = 0$$

$$S(x^{8_1}) + y^{8_1} = 0$$

$$S(x^{8_6}) + y^{8_6} = 0$$

$$S(x^{9_0}) + y^{9_0} = 0$$

$$S(x^{9_2}) + y^{9_2} = 0$$

$$S(x^{9_3}) + y^{9_3} = 0$$

$$S(x^{9_4}) + y^{9_4} = 0$$

$$S(x^{9_6}) + y^{9_6} = 0$$

$$S(x^{10_1}) + y^{10_1} = 0$$

$$S(x^{10_3}) + y^{10_3} = 0$$

$$S(x^{11_1}) + y^{11_1} = 0$$

$$S(x^{12_0}) + y^{12_0} = 0$$

$$S(x^{13_2}) + y^{13_2} = 0$$

the 4 th Minimal Constraint set is:

$$[x^{0_3}] + x^{1_11} + k_{0_3} = 0$$

$$[x^{0_4}] + x^{1_12} + k_{0_4} = 0$$

$$[x^{0_5}] + x^{1_13} + k_{0_5} = 0$$

$$x^{1_11} + y^{1_7} + [x^{2_5}] + k_{1_5} = 0$$

$$x^{1_12} + [y^{1_4}] + x^{2_6} + k_{1_6} = 0$$

$$x^{1_13} + y^{1_6} + [x^{2_7}] + k_{1_7} = 0$$

$$x^{1_6} + x^{2_14} + k_{1_6} = 0$$

$$x^{1_7} + x^{2_15} + k_{1_7} = 0$$

$$x^{2_14} + y^{2_1} + x^{3_0} + k_{2_0} = 0$$

$$x^{2_15} + y^{2_3} + x^{3_1} + k_{2_1} = 0$$

$$x^{2_1} + x^{3_9} + k_{2_1} = 0$$

$$x^{2_3} + x^{3_11} + k_{2_3} = 0$$

$$x^{2_6} + x^{3_14} + k_{2_6} = 0$$

$$x^{3_14} + y^{3_1} + x^{4_0} + k_{3_0} = 0$$

$$\begin{aligned}
&x^3_9 + y^3_2 + x^4_3 + k_{3_3} = 0 \\
&x^3_{11} + y^3_7 + x^4_5 + k_{3_5} = 0 \\
&x^3_0 + x^4_8 + k_{3_0} = 0 \\
&x^3_2 + x^4_{10} + k_{3_2} = 0 \\
&x^3_7 + x^4_{15} + k_{3_7} = 0 \\
&x^4_{15} + y^4_3 + x^5_1 + k_{4_1} = 0 \\
&x^4_8 + y^4_0 + x^5_2 + k_{4_2} = 0 \\
&x^4_{10} + y^4_5 + x^5_4 + k_{4_4} = 0 \\
&[x^4_6] + x^5_{14} + k_{4_6} = 0 \\
&x^5_{14} + y^5_1 + [x^6_0] + k_{5_0} = 0 \\
&x^5_2 + x^6_{10} + k_{5_2} = 0 \\
&x^5_4 + x^6_{12} + k_{5_4} = 0 \\
&x^6_{10} + y^6_5 + x^7_4 + k_{6_4} = 0 \\
&x^6_{12} + y^6_4 + x^7_6 + k_{6_6} = 0 \\
&x^6_4 + x^7_{12} + k_{6_4} = 0 \\
&x^6_5 + x^7_{13} + k_{6_5} = 0 \\
&[x^6_6] + x^7_{14} + k_{6_6} = 0 \\
&x^7_{14} + [y^7_1] + x^8_0 + k_{7_0} = 0 \\
&x^7_{12} + y^7_4 + x^8_6 + k_{7_6} = 0 \\
&x^7_{13} + y^7_6 + x^8_7 + k_{7_7} = 0 \\
&[x^7_1] + x^8_9 + k_{7_1} = 0 \\
&[x^7_7] + x^8_{15} + k_{7_7} = 0 \\
&x^8_{15} + [y^8_3] + x^9_1 + k_{8_1} = 0 \\
&x^8_9 + [y^8_2] + x^9_3 + k_{8_3} = 0 \\
&x^8_0 + x^9_8 + k_{8_0} = 0 \\
&x^8_6 + x^9_{14} + k_{8_6} = 0 \\
&x^8_7 + x^9_{15} + k_{8_7} = 0 \\
&x^9_{14} + y^9_1 + x^{10}_0 + k_{9_0} = 0 \\
&x^9_{15} + y^9_3 + x^{10}_1 + k_{9_1} = 0 \\
&x^9_8 + y^9_0 + x^{10}_2 + k_{9_2} = 0 \\
&x^9_0 + x^{10}_8 + k_{9_0} = 0 \\
&x^{10}_8 + y^{10}_0 + x^{11}_2 + k_{10_2} = 0 \\
&x^{10}_1 + x^{11}_9 + k_{10_1} = 0 \\
&x^{10}_2 + x^{11}_{10} + k_{10_2} = 0 \\
&x^{11}_9 + y^{11}_2 + x^{12}_3 + k_{11_3} = 0 \\
&x^{11}_{10} + [y^{11}_5] + [x^{12}_4] + k_{11_4} = 0 \\
&x^{12}_3 + x^{13}_{11} + k_{12_3} = 0 \\
&x^{13}_{11} + [y^{13}_7] + [x^{14}_5] + k_{13_5} = 0 \\
&S(x^1_6) + y^1_6 = 0 \\
&S(x^1_7) + y^1_7 = 0 \\
&S(x^2_1) + y^2_1 = 0 \\
&S(x^2_3) + y^2_3 = 0 \\
&S(x^3_1) + y^3_1 = 0 \\
&S(x^3_2) + y^3_2 = 0
\end{aligned}$$

$$S(x^{3_7}) + y^{3_7} = 0$$

$$S(x^{4_0}) + y^{4_0} = 0$$

$$S(x^{4_3}) + y^{4_3} = 0$$

$$S(x^{4_5}) + y^{4_5} = 0$$

$$S(x^{5_1}) + y^{5_1} = 0$$

$$S(x^{6_4}) + y^{6_4} = 0$$

$$S(x^{6_5}) + y^{6_5} = 0$$

$$S(x^{7_4}) + y^{7_4} = 0$$

$$S(x^{7_6}) + y^{7_6} = 0$$

$$S(x^{9_0}) + y^{9_0} = 0$$

$$S(x^{9_1}) + y^{9_1} = 0$$

$$S(x^{9_3}) + y^{9_3} = 0$$

$$S(x^{10_0}) + y^{10_0} = 0$$

$$S(x^{11_2}) + y^{11_2} = 0$$

the 5 th Minimal Constraint set is:

$$[x^{10_4}] + x^{11_{12}} + k_{10_4} = 0$$

$$x^{11_{12}} + [y^{11_4}] + x^{12_6} + k_{11_6} = 0$$

$$[x^{11_5}] + x^{12_{13}} + k_{11_5} = 0$$

$$x^{12_{13}} + y^{12_6} + [x^{13_7}] + k_{12_7} = 0$$

$$S(x^{12_6}) + y^{12_6} = 0$$

the 6 th Minimal Constraint set is:

$$[x^{7_7}] + x^{8_{15}} + k_{7_7} = 0$$

$$x^{8_{15}} + [y^{8_3}] + x^{9_1} + k_{8_1} = 0$$

$$x^{9_1} + x^{10_9} + k_{9_1} = 0$$

$$x^{10_9} + y^{10_2} + x^{11_3} + k_{10_3} = 0$$

$$x^{10_2} + x^{11_{10}} + k_{10_2} = 0$$

$$[x^{10_7}] + x^{11_{15}} + k_{10_7} = 0$$

$$x^{11_{15}} + y^{11_3} + [x^{12_1}] + k_{11_1} = 0$$

$$x^{11_{10}} + [y^{11_5}] + [x^{12_4}] + k_{11_4} = 0$$

$$S(x^{10_2}) + y^{10_2} = 0$$

$$S(x^{11_3}) + y^{11_3} = 0$$

the 7 th Minimal Constraint set is:

$$[x^{7_2}] + x^{8_{10}} + k_{7_2} = 0$$

$$x^{8_{10}} + [y^{8_5}] + x^{9_4} + k_{8_4} = 0$$

$$x^{9_4} + x^{10_{12}} + k_{9_4} = 0$$

$$x^{10_{12}} + [y^{10_4}] + [x^{11_6}] + k_{10_6} = 0$$

the 8 th Minimal Constraint set is:

$$[x^{7_1}] + x^{8_9} + k_{7_1} = 0$$

$$x^{8_9} + [y^{8_2}] + x^{9_3} + k_{8_3} = 0$$

$$x^{9_3} + x^{10_{11}} + k_{9_3} = 0$$

$$x^{10_{11}} + [y^{10_7}] + [x^{11_5}] + k_{10_5} = 0$$

the 9 th Minimal Constraint set is:

$$[x^{0_5}] + x^{1_{13}} + k_{0_5} = 0$$

$$x^{1_{13}} + y^{1_6} + [x^{2_7}] + k_{1_7} = 0$$

$$\begin{aligned}
&x^{1_6} + x^{2_{14}} + k_{1_6} = 0 \\
&x^{2_{14}} + y^{2_1} + x^{3_0} + k_{2_0} = 0 \\
&x^{2_1} + x^{3_9} + k_{2_1} = 0 \\
&[x^{2_5}] + x^{3_{13}} + k_{2_5} = 0 \\
&x^{3_9} + y^{3_2} + x^{4_3} + k_{3_3} = 0 \\
&x^{3_{13}} + [y^{3_6}] + x^{4_7} + k_{3_7} = 0 \\
&x^{3_0} + x^{4_8} + k_{3_0} = 0 \\
&x^{3_2} + x^{4_{10}} + k_{3_2} = 0 \\
&[x^{3_5}] + x^{4_{13}} + k_{3_5} = 0 \\
&[x^{3_6}] + x^{4_{14}} + k_{3_6} = 0 \\
&x^{4_{14}} + [y^{4_1}] + x^{5_0} + k_{4_0} = 0 \\
&x^{4_8} + y^{4_0} + x^{5_2} + k_{4_2} = 0 \\
&x^{4_{10}} + y^{4_5} + x^{5_4} + k_{4_4} = 0 \\
&x^{4_{13}} + [y^{4_6}] + x^{5_7} + k_{4_7} = 0 \\
&x^{4_0} + x^{5_8} + k_{4_0} = 0 \\
&x^{4_3} + x^{5_{11}} + k_{4_3} = 0 \\
&[x^{4_4}] + x^{5_{12}} + k_{4_4} = 0 \\
&x^{4_5} + x^{5_{13}} + k_{4_5} = 0 \\
&x^{4_7} + x^{5_{15}} + k_{4_7} = 0 \\
&x^{5_{15}} + y^{5_3} + x^{6_1} + k_{5_1} = 0 \\
&x^{5_8} + y^{5_0} + x^{6_2} + k_{5_2} = 0 \\
&x^{5_{11}} + y^{5_7} + x^{6_5} + k_{5_5} = 0 \\
&x^{5_{12}} + y^{5_4} + [x^{6_6}] + k_{5_6} = 0 \\
&x^{5_{13}} + y^{5_6} + x^{6_7} + k_{5_7} = 0 \\
&x^{5_2} + x^{6_{10}} + k_{5_2} = 0 \\
&x^{5_3} + x^{6_{11}} + k_{5_3} = 0 \\
&x^{5_6} + x^{6_{14}} + k_{5_6} = 0 \\
&x^{6_{14}} + y^{6_1} + x^{7_0} + k_{6_0} = 0 \\
&x^{6_{10}} + y^{6_5} + x^{7_4} + k_{6_4} = 0 \\
&x^{6_{11}} + y^{6_7} + x^{7_5} + k_{6_5} = 0 \\
&x^{6_2} + x^{7_{10}} + k_{6_2} = 0 \\
&[x^{6_6}] + x^{7_{14}} + k_{6_6} = 0 \\
&x^{7_{14}} + [y^{7_1}] + x^{8_0} + k_{7_0} = 0 \\
&x^{7_{10}} + y^{7_5} + x^{8_4} + k_{7_4} = 0 \\
&x^{7_0} + x^{8_8} + k_{7_0} = 0 \\
&x^{7_4} + x^{8_{12}} + k_{7_4} = 0 \\
&x^{8_8} + y^{8_0} + x^{9_2} + k_{8_2} = 0 \\
&x^{8_{12}} + y^{8_4} + x^{9_6} + k_{8_6} = 0 \\
&[x^{8_5}] + x^{9_{13}} + k_{8_5} = 0 \\
&x^{9_{13}} + y^{9_6} + [x^{10_7}] + k_{9_7} = 0 \\
&x^{9_2} + x^{10_{10}} + k_{9_2} = 0 \\
&x^{10_{10}} + [y^{10_5}] + [x^{11_4}] + k_{10_4} = 0 \\
&S(x^{1_6}) + y^{1_6} = 0 \\
&S(x^{2_1}) + y^{2_1} = 0
\end{aligned}$$

$$S(x^3_2) + y^3_2 = 0$$

$$S(x^4_0) + y^4_0 = 0$$

$$S(x^4_5) + y^4_5 = 0$$

$$S(x^5_0) + y^5_0 = 0$$

$$S(x^5_3) + y^5_3 = 0$$

$$S(x^5_4) + y^5_4 = 0$$

$$S(x^5_6) + y^5_6 = 0$$

$$S(x^5_7) + y^5_7 = 0$$

$$S(x^6_1) + y^6_1 = 0$$

$$S(x^6_5) + y^6_5 = 0$$

$$S(x^6_7) + y^6_7 = 0$$

$$S(x^7_5) + y^7_5 = 0$$

$$S(x^8_0) + y^8_0 = 0$$

$$S(x^8_4) + y^8_4 = 0$$

$$S(x^9_6) + y^9_6 = 0$$

the 10 th Minimal Constraint set is:

$$[x^0_4] + x^1_{12} + k_{0_4} = 0$$

$$[x^0_5] + x^1_{13} + k_{0_5} = 0$$

$$x^1_{12} + [y^1_4] + x^2_6 + k_{1_6} = 0$$

$$x^1_{13} + y^1_6 + [x^2_7] + k_{1_7} = 0$$

$$x^1_6 + x^2_{14} + k_{1_6} = 0$$

$$x^2_{14} + y^2_1 + x^3_0 + k_{2_0} = 0$$

$$x^2_1 + x^3_9 + k_{2_1} = 0$$

$$[x^2_5] + x^3_{13} + k_{2_5} = 0$$

$$x^2_6 + x^3_{14} + k_{2_6} = 0$$

$$[x^2_7] + x^3_{15} + k_{2_7} = 0$$

$$x^3_{14} + y^3_1 + x^4_0 + k_{3_0} = 0$$

$$x^3_{15} + y^3_3 + [x^4_1] + k_{3_1} = 0$$

$$x^3_9 + y^3_2 + x^4_3 + k_{3_3} = 0$$

$$x^3_{13} + [y^3_6] + x^4_7 + k_{3_7} = 0$$

$$x^3_0 + x^4_8 + k_{3_0} = 0$$

$$x^3_1 + x^4_9 + k_{3_1} = 0$$

$$x^3_2 + x^4_{10} + k_{3_2} = 0$$

$$x^3_3 + x^4_{11} + k_{3_3} = 0$$

$$[x^3_4] + x^4_{12} + k_{3_4} = 0$$

$$[x^3_5] + x^4_{13} + k_{3_5} = 0$$

$$x^4_8 + y^4_0 + x^5_2 + k_{4_2} = 0$$

$$x^4_9 + y^4_2 + x^5_3 + k_{4_3} = 0$$

$$x^4_{10} + y^4_5 + x^5_4 + k_{4_4} = 0$$

$$x^4_{11} + y^4_7 + x^5_5 + k_{4_5} = 0$$

$$x^4_{12} + [y^4_4] + x^5_6 + k_{4_6} = 0$$

$$x^4_{13} + [y^4_6] + x^5_7 + k_{4_7} = 0$$

$$x^4_2 + x^5_{10} + k_{4_2} = 0$$

$$x^4_3 + x^5_{11} + k_{4_3} = 0$$

$$\begin{aligned}
&[x^{4_4}] + x^{5_12} + k_{4_4} = 0 \\
&x^{4_5} + x^{5_13} + k_{4_5} = 0 \\
&x^{5_10} + y^{5_5} + x^{6_4} + k_{5_4} = 0 \\
&x^{5_11} + y^{5_7} + x^{6_5} + k_{5_5} = 0 \\
&x^{5_12} + y^{5_4} + [x^{6_6}] + k_{5_6} = 0 \\
&x^{5_13} + y^{5_6} + x^{6_7} + k_{5_7} = 0 \\
&x^{5_2} + x^{6_10} + k_{5_2} = 0 \\
&x^{5_3} + x^{6_11} + k_{5_3} = 0 \\
&x^{6_10} + y^{6_5} + x^{7_4} + k_{6_4} = 0 \\
&x^{6_11} + y^{6_7} + x^{7_5} + k_{6_5} = 0 \\
&x^{6_4} + x^{7_12} + k_{6_4} = 0 \\
&x^{7_12} + y^{7_4} + x^{8_6} + k_{7_6} = 0 \\
&x^{7_5} + x^{8_13} + k_{7_5} = 0 \\
&x^{8_13} + y^{8_6} + x^{9_7} + k_{8_7} = 0 \\
&[x^{8_3}] + x^{9_11} + k_{8_3} = 0 \\
&x^{9_11} + y^{9_7} + [x^{10_5}] + k_{9_5} = 0 \\
&S(x^{1_6}) + y^{1_6} = 0 \\
&S(x^{2_1}) + y^{2_1} = 0 \\
&S(x^{3_1}) + y^{3_1} = 0 \\
&S(x^{3_2}) + y^{3_2} = 0 \\
&S(x^{3_3}) + y^{3_3} = 0 \\
&S(x^{4_0}) + y^{4_0} = 0 \\
&S(x^{4_2}) + y^{4_2} = 0 \\
&S(x^{4_5}) + y^{4_5} = 0 \\
&S(x^{4_7}) + y^{4_7} = 0 \\
&S(x^{5_4}) + y^{5_4} = 0 \\
&S(x^{5_5}) + y^{5_5} = 0 \\
&S(x^{5_6}) + y^{5_6} = 0 \\
&S(x^{5_7}) + y^{5_7} = 0 \\
&S(x^{6_5}) + y^{6_5} = 0 \\
&S(x^{6_7}) + y^{6_7} = 0 \\
&S(x^{7_4}) + y^{7_4} = 0 \\
&S(x^{8_6}) + y^{8_6} = 0 \\
&S(x^{9_7}) + y^{9_7} = 0
\end{aligned}$$

the 11 th Minimal Constraint set is:

$$\begin{aligned}
&[x^{0_5}] + x^{1_13} + k_{0_5} = 0 \\
&x^{1_13} + y^{1_6} + [x^{2_7}] + k_{1_7} = 0 \\
&x^{1_6} + x^{2_14} + k_{1_6} = 0 \\
&x^{2_14} + y^{2_1} + x^{3_0} + k_{2_0} = 0 \\
&x^{2_1} + x^{3_9} + k_{2_1} = 0 \\
&[x^{2_5}] + x^{3_13} + k_{2_5} = 0 \\
&x^{3_9} + y^{3_2} + x^{4_3} + k_{3_3} = 0 \\
&x^{3_13} + [y^{3_6}] + x^{4_7} + k_{3_7} = 0 \\
&x^{3_0} + x^{4_8} + k_{3_0} = 0
\end{aligned}$$

$$\begin{aligned}
& x^3_2 + x^4_{10} + k_{3_2} = 0 \\
& [x^3_4] + x^4_{12} + k_{3_4} = 0 \\
& [x^3_5] + x^4_{13} + k_{3_5} = 0 \\
& [x^3_6] + x^4_{14} + k_{3_6} = 0 \\
& x^4_{14} + [y^4_1] + x^5_0 + k_{4_0} = 0 \\
& x^4_8 + y^4_0 + x^5_2 + k_{4_2} = 0 \\
& x^4_{10} + y^4_5 + x^5_4 + k_{4_4} = 0 \\
& x^4_{12} + [y^4_4] + x^5_6 + k_{4_6} = 0 \\
& x^4_{13} + [y^4_6] + x^5_7 + k_{4_7} = 0 \\
& x^4_0 + x^5_8 + k_{4_0} = 0 \\
& x^4_3 + x^5_{11} + k_{4_3} = 0 \\
& [x^4_4] + x^5_{12} + k_{4_4} = 0 \\
& x^4_5 + x^5_{13} + k_{4_5} = 0 \\
& x^4_7 + x^5_{15} + k_{4_7} = 0 \\
& x^5_{15} + y^5_3 + x^6_1 + k_{5_1} = 0 \\
& x^5_8 + y^5_0 + x^6_2 + k_{5_2} = 0 \\
& x^5_{11} + y^5_7 + x^6_5 + k_{5_5} = 0 \\
& x^5_{12} + y^5_4 + [x^6_6] + k_{5_6} = 0 \\
& x^5_{13} + y^5_6 + x^6_7 + k_{5_7} = 0 \\
& x^5_2 + x^6_{10} + k_{5_2} = 0 \\
& x^5_3 + x^6_{11} + k_{5_3} = 0 \\
& x^6_{10} + y^6_5 + x^7_4 + k_{6_4} = 0 \\
& x^6_{11} + y^6_7 + x^7_5 + k_{6_5} = 0 \\
& x^6_1 + x^7_9 + k_{6_1} = 0 \\
& x^6_2 + x^7_{10} + k_{6_2} = 0 \\
& x^7_9 + [y^7_2] + [x^8_3] + k_{7_3} = 0 \\
& x^7_{10} + y^7_5 + x^8_4 + k_{7_4} = 0 \\
& x^7_4 + x^8_{12} + k_{7_4} = 0 \\
& x^8_{12} + y^8_4 + x^9_6 + k_{8_6} = 0 \\
& [x^8_5] + x^9_{13} + k_{8_5} = 0 \\
& x^9_{13} + y^9_6 + [x^{10}_7] + k_{9_7} = 0 \\
& S(x^1_6) + y^1_6 = 0 \\
& S(x^2_1) + y^2_1 = 0 \\
& S(x^3_2) + y^3_2 = 0 \\
& S(x^4_0) + y^4_0 = 0 \\
& S(x^4_5) + y^4_5 = 0 \\
& S(x^5_0) + y^5_0 = 0 \\
& S(x^5_3) + y^5_3 = 0 \\
& S(x^5_4) + y^5_4 = 0 \\
& S(x^5_6) + y^5_6 = 0 \\
& S(x^5_7) + y^5_7 = 0 \\
& S(x^6_5) + y^6_5 = 0 \\
& S(x^6_7) + y^6_7 = 0 \\
& S(x^7_5) + y^7_5 = 0
\end{aligned}$$

$$S(x^{8_4}) + y^{8_4} = 0$$

$$S(x^{9_6}) + y^{9_6} = 0$$

the 12 th Minimal Constraint set is:

$$[x^{0_5}] + x^{1_13} + k_{0_5} = 0$$

$$x^{1_13} + y^{1_6} + [x^{2_7}] + k_{1_7} = 0$$

$$x^{1_6} + x^{2_14} + k_{1_6} = 0$$

$$x^{2_14} + y^{2_1} + x^{3_0} + k_{2_0} = 0$$

$$x^{2_1} + x^{3_9} + k_{2_1} = 0$$

$$[x^{2_5}] + x^{3_13} + k_{2_5} = 0$$

$$x^{3_9} + y^{3_2} + x^{4_3} + k_{3_3} = 0$$

$$x^{3_13} + [y^{3_6}] + x^{4_7} + k_{3_7} = 0$$

$$x^{3_0} + x^{4_8} + k_{3_0} = 0$$

$$x^{3_2} + x^{4_10} + k_{3_2} = 0$$

$$[x^{3_5}] + x^{4_13} + k_{3_5} = 0$$

$$[x^{3_6}] + x^{4_14} + k_{3_6} = 0$$

$$x^{4_14} + [y^{4_1}] + x^{5_0} + k_{4_0} = 0$$

$$x^{4_8} + y^{4_0} + x^{5_2} + k_{4_2} = 0$$

$$x^{4_10} + y^{4_5} + x^{5_4} + k_{4_4} = 0$$

$$x^{4_13} + [y^{4_6}] + x^{5_7} + k_{4_7} = 0$$

$$x^{4_0} + x^{5_8} + k_{4_0} = 0$$

$$x^{4_3} + x^{5_11} + k_{4_3} = 0$$

$$[x^{4_4}] + x^{5_12} + k_{4_4} = 0$$

$$x^{4_5} + x^{5_13} + k_{4_5} = 0$$

$$x^{4_7} + x^{5_15} + k_{4_7} = 0$$

$$x^{5_15} + y^{5_3} + x^{6_1} + k_{5_1} = 0$$

$$x^{5_8} + y^{5_0} + x^{6_2} + k_{5_2} = 0$$

$$x^{5_11} + y^{5_7} + x^{6_5} + k_{5_5} = 0$$

$$x^{5_12} + y^{5_4} + [x^{6_6}] + k_{5_6} = 0$$

$$x^{5_13} + y^{5_6} + x^{6_7} + k_{5_7} = 0$$

$$x^{5_2} + x^{6_10} + k_{5_2} = 0$$

$$x^{5_3} + x^{6_11} + k_{5_3} = 0$$

$$x^{5_6} + x^{6_14} + k_{5_6} = 0$$

$$x^{6_14} + y^{6_1} + x^{7_0} + k_{6_0} = 0$$

$$x^{6_10} + y^{6_5} + x^{7_4} + k_{6_4} = 0$$

$$x^{6_11} + y^{6_7} + x^{7_5} + k_{6_5} = 0$$

$$[x^{6_0}] + x^{7_8} + k_{6_0} = 0$$

$$x^{6_2} + x^{7_10} + k_{6_2} = 0$$

$$x^{7_8} + y^{7_0} + [x^{8_2}] + k_{7_2} = 0$$

$$x^{7_10} + y^{7_5} + x^{8_4} + k_{7_4} = 0$$

$$x^{7_4} + x^{8_12} + k_{7_4} = 0$$

$$x^{8_12} + y^{8_4} + x^{9_6} + k_{8_6} = 0$$

$$[x^{8_5}] + x^{9_13} + k_{8_5} = 0$$

$$x^{9_13} + y^{9_6} + [x^{10_7}] + k_{9_7} = 0$$

$$S(x^{1_6}) + y^{1_6} = 0$$

$$S(x^{2_1}) + y^{2_1} = 0$$

$$S(x^{3_2}) + y^{3_2} = 0$$

$$S(x^{4_0}) + y^{4_0} = 0$$

$$S(x^{4_5}) + y^{4_5} = 0$$

$$S(x^{5_0}) + y^{5_0} = 0$$

$$S(x^{5_3}) + y^{5_3} = 0$$

$$S(x^{5_4}) + y^{5_4} = 0$$

$$S(x^{5_6}) + y^{5_6} = 0$$

$$S(x^{5_7}) + y^{5_7} = 0$$

$$S(x^{6_1}) + y^{6_1} = 0$$

$$S(x^{6_5}) + y^{6_5} = 0$$

$$S(x^{6_7}) + y^{6_7} = 0$$

$$S(x^{7_0}) + y^{7_0} = 0$$

$$S(x^{7_5}) + y^{7_5} = 0$$

$$S(x^{8_4}) + y^{8_4} = 0$$

$$S(x^{9_6}) + y^{9_6} = 0$$

the 13 th Minimal Constraint set is:

$$[x^{0_3}] + x^{1_{11}} + k_{0_3} = 0$$

$$[x^{0_4}] + x^{1_{12}} + k_{0_4} = 0$$

$$[x^{0_5}] + x^{1_{13}} + k_{0_5} = 0$$

$$x^{1_{11}} + y^{1_7} + [x^{2_5}] + k_{1_5} = 0$$

$$x^{1_{12}} + [y^{1_4}] + x^{2_6} + k_{1_6} = 0$$

$$x^{1_{13}} + y^{1_6} + [x^{2_7}] + k_{1_7} = 0$$

$$x^{1_6} + x^{2_{14}} + k_{1_6} = 0$$

$$x^{1_7} + x^{2_{15}} + k_{1_7} = 0$$

$$x^{2_{14}} + y^{2_1} + x^{3_0} + k_{2_0} = 0$$

$$x^{2_{15}} + y^{2_3} + x^{3_1} + k_{2_1} = 0$$

$$x^{2_1} + x^{3_9} + k_{2_1} = 0$$

$$x^{2_3} + x^{3_{11}} + k_{2_3} = 0$$

$$x^{2_6} + x^{3_{14}} + k_{2_6} = 0$$

$$x^{3_{14}} + y^{3_1} + x^{4_0} + k_{3_0} = 0$$

$$x^{3_9} + y^{3_2} + x^{4_3} + k_{3_3} = 0$$

$$x^{3_{11}} + y^{3_7} + x^{4_5} + k_{3_5} = 0$$

$$x^{3_0} + x^{4_8} + k_{3_0} = 0$$

$$x^{3_2} + x^{4_{10}} + k_{3_2} = 0$$

$$x^{3_7} + x^{4_{15}} + k_{3_7} = 0$$

$$x^{4_{15}} + y^{4_3} + x^{5_1} + k_{4_1} = 0$$

$$x^{4_8} + y^{4_0} + x^{5_2} + k_{4_2} = 0$$

$$x^{4_{10}} + y^{4_5} + x^{5_4} + k_{4_4} = 0$$

$$[x^{4_1}] + x^{5_9} + k_{4_1} = 0$$

$$[x^{4_4}] + x^{5_{12}} + k_{4_4} = 0$$

$$[x^{4_6}] + x^{5_{14}} + k_{4_6} = 0$$

$$x^{5_{14}} + y^{5_1} + [x^{6_0}] + k_{5_0} = 0$$

$$x^{5_9} + y^{5_2} + [x^{6_3}] + k_{5_3} = 0$$

$$x^{5_{12}} + y^{5_{4}} + [x^{6_{6}}] + k_{5_{6}} = 0$$

$$S(x^{1_{6}}) + y^{1_{6}} = 0$$

$$S(x^{1_{7}}) + y^{1_{7}} = 0$$

$$S(x^{2_{1}}) + y^{2_{1}} = 0$$

$$S(x^{2_{3}}) + y^{2_{3}} = 0$$

$$S(x^{3_{1}}) + y^{3_{1}} = 0$$

$$S(x^{3_{2}}) + y^{3_{2}} = 0$$

$$S(x^{3_{7}}) + y^{3_{7}} = 0$$

$$S(x^{4_{0}}) + y^{4_{0}} = 0$$

$$S(x^{4_{3}}) + y^{4_{3}} = 0$$

$$S(x^{4_{5}}) + y^{4_{5}} = 0$$

$$S(x^{5_{1}}) + y^{5_{1}} = 0$$

$$S(x^{5_{2}}) + y^{5_{2}} = 0$$

$$S(x^{5_{4}}) + y^{5_{4}} = 0$$

the 14 th Minimal Constraint set is:

$$[x^{6_{3}}] + x^{7_{11}} + k_{6_{3}} = 0$$

$$x^{7_{11}} + [y^{7_{7}}] + [x^{8_{5}}] + k_{7_{5}} = 0$$

the 15 th Minimal Constraint set is:

$$[x^{3_{5}}] + x^{4_{13}} + k_{3_{5}} = 0$$

$$x^{4_{13}} + [y^{4_{6}}] + x^{5_{7}} + k_{4_{7}} = 0$$

$$x^{5_{7}} + x^{6_{15}} + k_{5_{7}} = 0$$

$$x^{6_{15}} + [y^{6_{3}}] + [x^{7_{1}}] + k_{6_{1}} = 0$$

the 16 th Minimal Constraint set is:

$$[x^{2_{5}}] + x^{3_{13}} + k_{2_{5}} = 0$$

$$[x^{2_{7}}] + x^{3_{15}} + k_{2_{7}} = 0$$

$$x^{3_{15}} + y^{3_{3}} + [x^{4_{1}}] + k_{3_{1}} = 0$$

$$x^{3_{13}} + [y^{3_{6}}] + x^{4_{7}} + k_{3_{7}} = 0$$

$$x^{3_{3}} + x^{4_{11}} + k_{3_{3}} = 0$$

$$x^{4_{11}} + y^{4_{7}} + x^{5_{5}} + k_{4_{5}} = 0$$

$$x^{5_{5}} + x^{6_{13}} + k_{5_{5}} = 0$$

$$x^{6_{13}} + [y^{6_{6}}] + [x^{7_{7}}] + k_{6_{7}} = 0$$

$$S(x^{3_{3}}) + y^{3_{3}} = 0$$

$$S(x^{4_{7}}) + y^{4_{7}} = 0$$

the 17 th Minimal Constraint set is:

$$[x^{3_{6}}] + x^{4_{14}} + k_{3_{6}} = 0$$

$$x^{4_{14}} + [y^{4_{1}}] + x^{5_{0}} + k_{4_{0}} = 0$$

$$x^{5_{0}} + x^{6_{8}} + k_{5_{0}} = 0$$

$$x^{6_{8}} + [y^{6_{0}}] + [x^{7_{2}}] + k_{6_{2}} = 0$$

the 18 th Minimal Constraint set is:

$$[x^{1_{4}}] + x^{2_{12}} + k_{1_{4}} = 0$$

$$x^{2_{12}} + y^{2_{4}} + [x^{3_{6}}] + k_{2_{6}} = 0$$

$$x^{2_{4}} + x^{3_{12}} + k_{2_{4}} = 0$$

$$x^{3_{12}} + [y^{3_{4}}] + [x^{4_{6}}] + k_{3_{6}} = 0$$

$$S(x^{2_{4}}) + y^{2_{4}} = 0$$