the 0 th Minimal Constraint set is:

$[x^2\_4] + x^3\_7 + k\_2\_2 = 0$

$[x^3\_6] + x^4\_3 + k\_3\_3 = 0$

$x^3\_7 + [y^3\_6] + x^4\_8 + k\_4\_4 = 0$

$x^4\_2 + x^5\_1 + k\_4\_1 = 0$

$x^4\_3 + y^4\_2 + [x^5\_4] + k\_5\_2 = 0$

$x^4\_8 + x^5\_13 + k\_4\_4 = 0$

$x^5\_0 + x^6\_5 + k\_5\_0 = 0$

$x^5\_1 + y^5\_0 + x^6\_0 + k\_6\_0 = 0$

$[x^5\_4] + x^6\_7 + k\_5\_2 = 0$

$x^5\_12 + x^6\_15 + k\_5\_6 = 0$

$x^5\_13 + y^5\_12 + x^6\_10 + k\_6\_5 = 0$

$x^6\_0 + x^7\_5 + k\_6\_0 = 0$

$x^6\_4 + x^7\_7 + k\_6\_2 = 0$

$x^6\_5 + y^6\_4 + x^7\_12 + k\_7\_6 = 0$

$x^6\_7 + [y^6\_6] + x^7\_8 + k\_7\_4 = 0$

$x^6\_10 + x^7\_9 + k\_6\_5 = 0$

$[x^6\_12] + x^7\_15 + k\_6\_6 = 0$

$[x^6\_14] + x^7\_11 + k\_6\_7 = 0$

$x^6\_15 + [y^6\_14] + [x^7\_14] + k\_7\_7 = 0$

$[x^7\_2] + x^8\_1 + k\_7\_1 = 0$

$x^7\_4 + x^8\_7 + k\_7\_2 = 0$

$x^7\_5 + y^7\_4 + x^8\_12 + k\_8\_6 = 0$

$x^7\_6 + x^8\_3 + k\_7\_3 = 0$

$x^7\_7 + y^7\_6 + x^8\_8 + k\_8\_4 = 0$

$x^7\_9 + y^7\_8 + x^8\_6 + k\_8\_3 = 0$

$[x^7\_10] + x^8\_9 + k\_7\_5 = 0$

$x^7\_11 + [y^7\_10] + x^8\_2 + k\_8\_1 = 0$

$x^7\_12 + x^8\_15 + k\_7\_6 = 0$

$x^7\_15 + [y^7\_14] + x^8\_14 + k\_8\_7 = 0$

$x^8\_0 + x^9\_5 + k\_8\_0 = 0$

$x^8\_1 + y^8\_0 + [x^9\_0] + k\_9\_0 = 0$

$x^8\_3 + y^8\_2 + x^9\_4 + k\_9\_2 = 0$

$x^8\_7 + y^8\_6 + x^9\_8 + k\_9\_4 = 0$

$x^8\_9 + y^8\_8 + [x^9\_6] + k\_9\_3 = 0$

$x^8\_12 + x^9\_15 + k\_8\_6 = 0$

$x^8\_15 + y^8\_14 + x^9\_14 + k\_9\_7 = 0$

$x^9\_5 + y^9\_4 + x^10\_12 + k\_10\_6 = 0$

$x^9\_8 + x^10\_13 + k\_9\_4 = 0$

$x^9\_15 + y^9\_14 + x^10\_14 + k\_10\_7 = 0$

$x^10\_13 + y^10\_12 + x^11\_10 + k\_11\_5 = 0$

$x^10\_14 + x^11\_11 + k\_10\_7 = 0$

$[x^11\_6] + x^12\_3 + k\_11\_3 = 0$

$x^11\_11 + y^11\_10 + x^12\_2 + k\_12\_1 = 0$

x^12_3 + y^12_2 + [x^13_4] + k_13_2= 0
S(x^4_2) + y^4_2= 0
S(x^5_0) + y^5_0= 0
S(x^5_12) + y^5_12= 0
S(x^6_4) + y^6_4= 0
S(x^7_4) + y^7_4= 0
S(x^7_6) + y^7_6= 0
S(x^7_8) + y^7_8= 0
S(x^8_0) + y^8_0= 0
S(x^8_2) + y^8_2= 0
S(x^8_6) + y^8_6= 0
S(x^8_8) + y^8_8= 0
S(x^8_14) + y^8_14= 0
S(x^9_4) + y^9_4= 0
S(x^9_14) + y^9_14= 0
S(x^10_12) + y^10_12= 0
S(x^11_10) + y^11_10= 0
S(x^12_2) + y^12_2= 0
the 1 th Minimal Constraint set is:
 [x^6_12] + x^7_15 + k_6_6= 0
 x^7_15 + [y^7_14] + x^8_14 + k_8_7= 0
 x^8_14 + x^9_11 + k_8_7= 0
 [x^9_2] + x^10_1 + k_9_1= 0
 x^9_10 + x^10_9 + k_9_5= 0
 x^9_11 + y^9_10 + x^10_2 + k_10_1= 0
 x^10_1 + [y^10_0] + x^11_0 + k_11_0= 0
 x^10_2 + x^11_1 + k_10_1= 0
 x^10_9 + [y^10_8] + [x^11_6] + k_11_3= 0
 x^11_1 + y^11_0 + x^12_0 + k_12_0= 0
 x^12_0 + x^13_5 + k_12_0= 0
 x^13_5 + [y^13_4] + [x^14_12] + k_14_6= 0
 S(x^9_10) + y^9_10= 0
 S(x^11_0) + y^11_0= 0
the 2 th Minimal Constraint set is:
 [x^2_4] + x^3_7 + k_2_2= 0
 [x^3_4] + x^4_7 + k_3_2= 0
 x^3_7 + [y^3_6] + x^4_8 + k_4_4= 0
 x^4_6 + x^5_3 + k_4_3= 0
 x^4_7 + y^4_6 + [x^5_8] + k_5_4= 0
 x^4_8 + x^5_13 + k_4_4= 0
 x^5_2 + x^6_1 + k_5_1= 0
 x^5_3 + y^5_2 + x^6_4 + k_6_2= 0
 x^5_12 + x^6_15 + k_5_6= 0
 x^5_13 + y^5_12 + x^6_10 + k_6_5= 0

$x^6_0 + x^7_5 + k\_6\_0 = 0$

$x^6_1 + y^6_0 + x^7_0 + k\_7\_0 = 0$

$x^6_4 + x^7_7 + k\_6\_2 = 0$

$[x^6_6] + x^7_3 + k\_6\_3 = 0$

$x^6_{10} + x^7_9 + k\_6\_5 = 0$

$[x^6_{14}] + x^7_{11} + k\_6\_7 = 0$

$x^6_{15} + [y^6_{14}] + [x^7_{14}] + k\_7\_7 = 0$

$x^7_0 + x^8_5 + k\_7\_0 = 0$

$x^7_3 + [y^7_2] + x^8_4 + k\_8\_2 = 0$

$x^7_4 + x^8_7 + k\_7\_2 = 0$

$x^7_5 + y^7_4 + x^8_{12} + k\_8\_6 = 0$

$x^7_6 + x^8_3 + k\_7\_3 = 0$

$x^7_7 + y^7_6 + x^8_8 + k\_8\_4 = 0$

$x^7_8 + x^8_{13} + k\_7\_4 = 0$

$x^7_9 + y^7_8 + x^8_6 + k\_8\_3 = 0$

$x^7_{11} + [y^7_{10}] + x^8_2 + k\_8\_1 = 0$

$[x^7_{14}] + x^8_{11} + k\_7\_7 = 0$

$x^8_3 + y^8_2 + x^9_4 + k\_9\_2 = 0$

$x^8_5 + y^8_4 + x^9_{12} + k\_9\_6 = 0$

$x^8_7 + y^8_6 + x^9_8 + k\_9\_4 = 0$

$x^8_8 + x^9_{13} + k\_8\_4 = 0$

$x^8_{10} + x^9_9 + k\_8\_5 = 0$

$x^8_{11} + y^8_{10} + [x^9_2] + k\_9\_1 = 0$

$x^8_{13} + y^8_{12} + x^9_{10} + k\_9\_5 = 0$

$x^9_4 + x^{10}_7 + k\_9\_2 = 0$

$x^9_9 + y^9_8 + x^{10}_6 + k\_10\_3 = 0$

$x^9_{10} + x^{10}_9 + k\_9\_5 = 0$

$x^9_{13} + y^9_{12} + x^{10}_{10} + k\_10\_5 = 0$

$x^{10}_7 + y^{10}_6 + x^{11}_8 + k\_11\_4 = 0$

$x^{10}_9 + [y^{10}_8] + [x^{11}_6] + k\_11\_3 = 0$

$x^{10}_{10} + x^{11}_9 + k\_10\_5 = 0$

$x^{11}_9 + y^{11}_8 + x^{12}_6 + k\_12\_3 = 0$

$x^{12}_6 + x^{13}_3 + k\_12\_3 = 0$

$x^{13}_3 + [y^{13}_2] + [x^{14}_4] + k\_14\_2 = 0$

$S(x^4_6) + y^4_6 = 0$

$S(x^5_2) + y^5_2 = 0$

$S(x^5_{12}) + y^5_{12} = 0$

$S(x^6_0) + y^6_0 = 0$

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

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

$S(x^7_8) + y^7_8 = 0$

$S(x^8_2) + y^8_2 = 0$

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

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

S(x^8_10) + y^8_10= 0
S(x^8_12) + y^8_12= 0
S(x^9_8) + y^9_8= 0
S(x^9_12) + y^9_12= 0
S(x^10_6) + y^10_6= 0
S(x^11_8) + y^11_8= 0
the 3 th Minimal Constraint set is:
[x^2_4] + x^3_7 + k_2_2= 0
[x^3_4] + x^4_7 + k_3_2= 0
x^3_7 + [y^3_6] + x^4_8 + k_4_4= 0
x^4_6 + x^5_3 + k_4_3= 0
x^4_7 + y^4_6 + [x^5_8] + k_5_4= 0
x^4_8 + x^5_13 + k_4_4= 0
x^5_2 + x^6_1 + k_5_1= 0
x^5_3 + y^5_2 + x^6_4 + k_6_2= 0
x^5_12 + x^6_15 + k_5_6= 0
x^5_13 + y^5_12 + x^6_10 + k_6_5= 0
x^6_0 + x^7_5 + k_6_0= 0
x^6_1 + y^6_0 + x^7_0 + k_7_0= 0
x^6_4 + x^7_7 + k_6_2= 0
[x^6_6] + x^7_3 + k_6_3= 0
x^6_10 + x^7_9 + k_6_5= 0
[x^6_14] + x^7_11 + k_6_7= 0
x^6_15 + [y^6_14] + [x^7_14] + k_7_7= 0
x^7_0 + x^8_5 + k_7_0= 0
x^7_3 + [y^7_2] + x^8_4 + k_8_2= 0
x^7_4 + x^8_7 + k_7_2= 0
x^7_5 + y^7_4 + x^8_12 + k_8_6= 0
x^7_6 + x^8_3 + k_7_3= 0
x^7_7 + y^7_6 + x^8_8 + k_8_4= 0
x^7_8 + x^8_13 + k_7_4= 0
x^7_9 + y^7_8 + x^8_6 + k_8_3= 0
x^7_11 + [y^7_10] + x^8_2 + k_8_1= 0
[x^7_14] + x^8_11 + k_7_7= 0
x^8_3 + y^8_2 + x^9_4 + k_9_2= 0
x^8_5 + y^8_4 + x^9_12 + k_9_6= 0
x^8_7 + y^8_6 + x^9_8 + k_9_4= 0
x^8_8 + x^9_13 + k_8_4= 0
x^8_10 + x^9_9 + k_8_5= 0
x^8_11 + y^8_10 + [x^9_2] + k_9_1= 0
x^8_13 + y^8_12 + x^9_10 + k_9_5= 0
x^9_4 + x^10_7 + k_9_2= 0
x^9_9 + y^9_8 + x^10_6 + k_10_3= 0
x^9_10 + x^10_9 + k_9_5= 0

x^9_13 + y^9_12 + x^10_10 + k_10_5= 0
x^10_7 + y^10_6 + x^11_8 + k_11_4= 0
x^10_9 + [y^10_8] + [x^11_6] + k_11_3= 0
x^10_10 + x^11_9 + k_10_5= 0
[x^11_4] + x^12_7 + k_11_2= 0
x^11_9 + y^11_8 + x^12_6 + k_12_3= 0
x^12_7 + y^12_6 + [x^13_8] + k_13_4= 0
S(x^4_6) + y^4_6= 0
S(x^5_2) + y^5_2= 0
S(x^5_12) + y^5_12= 0
S(x^6_0) + y^6_0= 0
S(x^7_4) + y^7_4= 0
S(x^7_6) + y^7_6= 0
S(x^7_8) + y^7_8= 0
S(x^8_2) + y^8_2= 0
S(x^8_4) + y^8_4= 0
S(x^8_6) + y^8_6= 0
S(x^8_10) + y^8_10= 0
S(x^8_12) + y^8_12= 0
S(x^9_8) + y^9_8= 0
S(x^9_12) + y^9_12= 0
S(x^10_6) + y^10_6= 0
S(x^11_8) + y^11_8= 0
S(x^12_6) + y^12_6= 0
the 4 th Minimal Constraint set is:
 [x^3_4] + x^4_7 + k_3_2= 0
 [x^3_6] + x^4_3 + k_3_3= 0
 x^4_2 + x^5_1 + k_4_1= 0
 x^4_3 + y^4_2 + [x^5_4] + k_5_2= 0
 x^4_6 + x^5_3 + k_4_3= 0
 x^4_7 + y^4_6 + [x^5_8] + k_5_4= 0
 x^5_0 + x^6_5 + k_5_0= 0
 x^5_1 + y^5_0 + x^6_0 + k_6_0= 0
 x^5_2 + x^6_1 + k_5_1= 0
 x^5_3 + y^5_2 + x^6_4 + k_6_2= 0
 [x^5_4] + x^6_7 + k_5_2= 0
 x^6_1 + y^6_0 + x^7_0 + k_7_0= 0
 x^6_5 + y^6_4 + x^7_12 + k_7_6= 0
 [x^6_6] + x^7_3 + k_6_3= 0
 x^6_7 + [y^6_6] + x^7_8 + k_7_4= 0
 [x^6_12] + x^7_15 + k_6_6= 0
 x^7_0 + x^8_5 + k_7_0= 0
 x^7_3 + [y^7_2] + x^8_4 + k_8_2= 0
 x^7_8 + x^8_13 + k_7_4= 0

x^7_12 + x^8_15 + k_7_6= 0
x^7_15 + [y^7_14] + x^8_14 + k_8_7= 0
x^8_5 + y^8_4 + x^9_12 + k_9_6= 0
x^8_12 + x^9_15 + k_8_6= 0
x^8_13 + y^8_12 + x^9_10 + k_9_5= 0
x^8_15 + y^8_14 + x^9_14 + k_9_7= 0
x^9_10 + x^10_9 + k_9_5= 0
x^9_12 + x^10_15 + k_9_6= 0
x^9_15 + y^9_14 + x^10_14 + k_10_7= 0
x^10_9 + [y^10_8] + [x^11_6] + k_11_3= 0
x^10_15 + y^10_14 + x^11_14 + k_11_7= 0
x^11_14 + x^12_11 + k_11_7= 0
x^12_11 + [y^12_10] + [x^13_2] + k_13_1= 0
S(x^4_2) + y^4_2= 0
S(x^4_6) + y^4_6= 0
S(x^5_0) + y^5_0= 0
S(x^5_2) + y^5_2= 0
S(x^6_0) + y^6_0= 0
S(x^6_4) + y^6_4= 0
S(x^8_4) + y^8_4= 0
S(x^8_12) + y^8_12= 0
S(x^8_14) + y^8_14= 0
S(x^9_14) + y^9_14= 0
S(x^10_14) + y^10_14= 0
the 5 th Minimal Constraint set is:
[x^9_0] + x^10_5 + k_9_0= 0
x^10_5 + [y^10_4] + x^11_12 + k_11_6= 0
[x^10_8] + x^11_13 + k_10_4= 0
x^11_13 + y^11_12 + [x^12_10] + k_12_5= 0
S(x^11_12) + y^11_12= 0
the 6 th Minimal Constraint set is:
[x^6_12] + x^7_15 + k_6_6= 0
x^7_15 + [y^7_14] + x^8_14 + k_8_7= 0
x^8_14 + x^9_11 + k_8_7= 0
[x^9_6] + x^10_3 + k_9_3= 0
x^9_10 + x^10_9 + k_9_5= 0
x^9_11 + y^9_10 + x^10_2 + k_10_1= 0
x^10_3 + y^10_2 + [x^11_4] + k_11_2= 0
x^10_9 + [y^10_8] + [x^11_6] + k_11_3= 0
S(x^9_10) + y^9_10= 0
S(x^10_2) + y^10_2= 0
the 7 th Minimal Constraint set is:
[x^6_6] + x^7_3 + k_6_3= 0
x^7_3 + [y^7_2] + x^8_4 + k_8_2= 0

x^8_4 + x^9_7 + k_8_2= 0
x^9_7 + [y^9_6] + [x^10_8] + k_10_4= 0
the 8 th Minimal Constraint set is:
 [x^2_4] + x^3_7 + k_2_2= 0
 x^3_7 + [y^3_6] + x^4_8 + k_4_4= 0
 x^4_8 + x^5_13 + k_4_4= 0
 [x^5_4] + x^6_7 + k_5_2= 0
 x^5_12 + x^6_15 + k_5_6= 0
 x^5_13 + y^5_12 + x^6_10 + k_6_5= 0
 x^6_7 + [y^6_6] + x^7_8 + k_7_4= 0
 x^6_10 + x^7_9 + k_6_5= 0
 x^6_15 + [y^6_14] + [x^7_14] + k_7_7= 0
 x^7_9 + y^7_8 + x^8_6 + k_8_3= 0
 x^8_6 + x^9_3 + k_8_3= 0
 x^9_3 + [y^9_2] + [x^10_4] + k_10_2= 0
 S(x^5_12) + y^5_12= 0
 S(x^7_8) + y^7_8= 0
the 9 th Minimal Constraint set is:
 [x^6_14] + x^7_11 + k_6_7= 0
 x^7_11 + [y^7_10] + x^8_2 + k_8_1= 0
 x^8_2 + x^9_1 + k_8_1= 0
 x^9_1 + [y^9_0] + [x^10_0] + k_10_0= 0
the 10 th Minimal Constraint set is:
 [x^2_4] + x^3_7 + k_2_2= 0
 x^3_7 + [y^3_6] + x^4_8 + k_4_4= 0
 x^4_8 + x^5_13 + k_4_4= 0
 x^5_12 + x^6_15 + k_5_6= 0
 x^5_13 + y^5_12 + x^6_10 + k_6_5= 0
 [x^5_14] + x^6_11 + k_5_7= 0
 x^6_11 + y^6_10 + [x^7_2] + k_7_1= 0
 x^6_15 + [y^6_14] + [x^7_14] + k_7_7= 0
 S(x^5_12) + y^5_12= 0
 S(x^6_10) + y^6_10= 0
the 11 th Minimal Constraint set is:
 [x^5_8] + x^6_13 + k_5_4= 0
 x^6_13 + [y^6_12] + [x^7_10] + k_7_5= 0
the 12 th Minimal Constraint set is:
 [x^2_0] + x^3_5 + k_2_0= 0
 x^3_5 + [y^3_4] + x^4_12 + k_4_6= 0
 x^4_12 + x^5_15 + k_4_6= 0
 x^5_15 + [y^5_14] + [x^6_14] + k_6_7= 0
the 13 th Minimal Constraint set is:
 [x^2_8] + x^3_13 + k_2_4= 0
 x^3_13 + [y^3_12] + x^4_10 + k_4_5= 0

x^4_10 + x^5_9 + k_4_5= 0

x^5_9 + [y^5_8] + [x^6_6] + k_6_3= 0

the 14 th Minimal Constraint set is:

[x^1_2] + x^2_1 + k_1_1= 0

[x^1_6] + x^2_3 + k_1_3= 0

x^2_1 + [y^2_0] + x^3_0 + k_3_0= 0

x^2_2 + x^3_1 + k_2_1= 0

x^2_3 + y^2_2 + [x^3_4] + k_3_2= 0

x^3_1 + y^3_0 + x^4_0 + k_4_0= 0

x^4_0 + x^5_5 + k_4_0= 0

x^5_5 + [y^5_4] + [x^6_12] + k_6_6= 0

S(x^2_2) + y^2_2= 0

S(x^3_0) + y^3_0= 0

the 15 th Minimal Constraint set is:

[x^1_0] + x^2_5 + k_1_0= 0

x^2_5 + [y^2_4] + [x^3_12] + k_3_6= 0