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