the 0 th Minimal Constraint set is:

y^0\_3 + x^1\_7 + k\_3= 0

y^0\_3 + [y^0\_9] + [x^1\_15] + k\_3= 0

[y^0\_7] + [y^0\_10] + x^1\_8 + k\_7= 0

y^1\_0 + x^2\_4 + k\_9= 0

y^1\_0 + y^1\_10 + x^2\_12 + k\_9= 0

y^1\_2 + y^1\_8 + [y^1\_15] + [x^2\_2] + k\_8= 0

y^1\_2 + x^2\_6 + k\_8= 0

y^1\_3 + [y^1\_9] + [y^1\_12] + x^2\_3 + k\_13= 0

y^1\_3 + x^2\_7 + k\_13= 0

y^1\_7 + y^1\_10 + x^2\_8 + k\_11= 0

y^2\_0 + x^3\_4 + k\_1= 0

y^2\_0 + y^2\_10 + x^3\_12 + k\_1= 0

y^2\_1 + x^3\_5 + k\_7= 0

y^2\_1 + y^2\_11 + x^3\_13 + k\_7= 0

[y^2\_2] + y^2\_8 + [x^3\_14] + k\_0= 0

y^2\_3 + y^2\_9 + y^2\_12 + x^3\_3 + k\_5= 0

y^2\_4 + y^2\_11 + x^3\_9 + k\_2= 0

y^2\_6 + y^2\_9 + x^3\_11 + k\_4= 0

y^2\_7 + y^2\_10 + x^3\_8 + k\_3= 0

y^3\_0 + y^3\_10 + y^3\_13 + x^4\_0 + k\_15= 0

y^3\_0 + y^3\_10 + x^4\_12 + k\_15= 0

y^3\_3 + y^3\_9 + y^3\_12 + x^4\_3 + k\_14= 0

y^3\_4 + y^3\_11 + x^4\_9 + k\_8= 0

y^3\_5 + y^3\_8 + x^4\_10 + k\_12= 0

y^4\_0 + y^4\_10 + x^5\_12 + k\_7= 0

y^4\_3 + y^4\_9 + y^4\_12 + x^5\_3 + k\_6= 0

y^5\_3 + [y^5\_9] + y^5\_12 + [x^6\_3] + k\_12= 0

S(x^1\_7) + y^1\_7= 0

S(x^1\_8) + y^1\_8= 0

S(x^2\_3) + y^2\_3= 0

S(x^2\_4) + y^2\_4= 0

S(x^2\_6) + y^2\_6= 0

S(x^2\_7) + y^2\_7= 0

S(x^2\_8) + y^2\_8= 0

S(x^2\_12) + y^2\_12= 0

S(x^3\_3) + y^3\_3= 0

S(x^3\_4) + y^3\_4= 0

S(x^3\_5) + y^3\_5= 0

S(x^3\_8) + y^3\_8= 0

S(x^3\_9) + y^3\_9= 0

S(x^3\_11) + y^3\_11= 0

S(x^3\_12) + y^3\_12= 0

S(x^3\_13) + y^3\_13= 0

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

S(x^4\_3) + y^4\_3= 0

S(x^4\_9) + y^4\_9= 0

S(x^4\_10) + y^4\_10= 0

S(x^4\_12) + y^4\_12= 0

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

S(x^5\_12) + y^5\_12= 0

the 1 th Minimal Constraint set is:

y^0\_1 + x^1\_5 + k\_1= 0

y^0\_1 + y^0\_11 + x^1\_13 + k\_1= 0

[y^0\_2] + [y^0\_8] + x^1\_14 + k\_2= 0

[y^0\_4] + y^0\_11 + [x^1\_9] + k\_4= 0

[y^0\_7] + [y^0\_10] + x^1\_8 + k\_7= 0

y^1\_0 + y^1\_10 + y^1\_13 + x^2\_0 + k\_9= 0

y^1\_0 + y^1\_10 + x^2\_12 + k\_9= 0

y^1\_1 + y^1\_11 + y^1\_14 + x^2\_1 + k\_15= 0

y^1\_1 + y^1\_11 + x^2\_13 + k\_15= 0

y^1\_5 + y^1\_8 + x^2\_10 + k\_14= 0

y^2\_0 + y^2\_10 + y^2\_13 + x^3\_0 + k\_1= 0

y^2\_1 + x^3\_5 + k\_7= 0

[y^2\_2] + y^2\_8 + [y^2\_15] + x^3\_2 + k\_0= 0

[y^2\_2] + y^2\_8 + [x^3\_14] + k\_0= 0

y^2\_3 + y^2\_9 + y^2\_12 + x^3\_3 + k\_5= 0

y^2\_3 + y^2\_9 + x^3\_15 + k\_5= 0

y^3\_0 + x^4\_4 + k\_15= 0

y^3\_2 + y^3\_8 + y^3\_15 + x^4\_2 + k\_9= 0

y^3\_3 + x^4\_7 + k\_14= 0

y^3\_5 + y^3\_8 + x^4\_10 + k\_12= 0

y^4\_2 + x^5\_6 + k\_1= 0

y^4\_4 + [y^4\_11] + [x^5\_9] + k\_0= 0

y^4\_7 + y^4\_10 + x^5\_8 + k\_5= 0

[y^5\_5] + y^5\_8 + [x^6\_10] + k\_10= 0

y^5\_6 + [y^5\_9] + [x^6\_11] + k\_8= 0

S(x^1\_5) + y^1\_5= 0

S(x^1\_8) + y^1\_8= 0

S(x^1\_13) + y^1\_13= 0

S(x^1\_14) + y^1\_14= 0

S(x^2\_0) + y^2\_0= 0

S(x^2\_1) + y^2\_1= 0

S(x^2\_10) + y^2\_10= 0

S(x^2\_12) + y^2\_12= 0

S(x^2\_13) + y^2\_13= 0

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

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

S(x^3\_3) + y^3\_3= 0

S(x^3\_5) + y^3\_5= 0

S(x^3\_15) + y^3\_15= 0

S(x^4\_2) + y^4\_2= 0

S(x^4\_4) + y^4\_4= 0

S(x^4\_7) + y^4\_7= 0

S(x^4\_10) + y^4\_10= 0

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

S(x^5\_8) + y^5\_8= 0

the 2 th Minimal Constraint set is:

y^0\_0 + x^1\_4 + k\_0= 0

y^0\_0 + [y^0\_10] + [x^1\_12] + k\_0= 0

y^0\_1 + x^1\_5 + k\_1= 0

y^0\_1 + y^0\_11 + x^1\_13 + k\_1= 0

y^0\_3 + [y^0\_9] + [y^0\_12] + x^1\_3 + k\_3= 0

y^0\_3 + [y^0\_9] + [x^1\_15] + k\_3= 0

[y^0\_4] + y^0\_11 + [x^1\_9] + k\_4= 0

y^1\_0 + y^1\_10 + y^1\_13 + x^2\_0 + k\_9= 0

y^1\_0 + y^1\_10 + x^2\_12 + k\_9= 0

y^1\_1 + x^2\_5 + k\_15= 0

y^1\_1 + y^1\_11 + x^2\_13 + k\_15= 0

y^1\_2 + y^1\_8 + [y^1\_15] + [x^2\_2] + k\_8= 0

y^1\_2 + x^2\_6 + k\_8= 0

y^1\_3 + x^2\_7 + k\_13= 0

y^1\_4 + y^1\_11 + x^2\_9 + k\_10= 0

y^1\_5 + y^1\_8 + x^2\_10 + k\_14= 0

y^2\_0 + y^2\_10 + y^2\_13 + x^3\_0 + k\_1= 0

y^2\_0 + x^3\_4 + k\_1= 0

y^2\_0 + y^2\_10 + x^3\_12 + k\_1= 0

[y^2\_2] + y^2\_8 + [y^2\_15] + x^3\_2 + k\_0= 0

y^2\_3 + y^2\_9 + y^2\_12 + x^3\_3 + k\_5= 0

y^2\_3 + y^2\_9 + x^3\_15 + k\_5= 0

y^2\_5 + y^2\_8 + x^3\_10 + k\_6= 0

y^2\_6 + y^2\_9 + x^3\_11 + k\_4= 0

y^2\_7 + y^2\_10 + x^3\_8 + k\_3= 0

y^3\_0 + y^3\_10 + x^4\_12 + k\_15= 0

y^3\_2 + y^3\_8 + y^3\_15 + x^4\_2 + k\_9= 0

y^3\_3 + y^3\_9 + y^3\_12 + x^4\_3 + k\_14= 0

y^3\_4 + y^3\_11 + x^4\_9 + k\_8= 0

[y^3\_6] + y^3\_9 + [x^4\_11] + k\_10= 0

y^4\_2 + x^5\_6 + k\_1= 0

y^4\_3 + y^4\_9 + y^4\_12 + x^5\_3 + k\_6= 0

y^5\_3 + [y^5\_9] + [x^6\_15] + k\_12= 0

y^5\_6 + [y^5\_9] + [x^6\_11] + k\_8= 0

S(x^1\_3) + y^1\_3= 0

S(x^1\_4) + y^1\_4= 0

S(x^1\_5) + y^1\_5= 0

S(x^1\_13) + y^1\_13= 0

S(x^2\_0) + y^2\_0= 0

S(x^2\_5) + y^2\_5= 0

S(x^2\_6) + y^2\_6= 0

S(x^2\_7) + y^2\_7= 0

S(x^2\_9) + y^2\_9= 0

S(x^2\_10) + y^2\_10= 0

S(x^2\_12) + y^2\_12= 0

S(x^2\_13) + y^2\_13= 0

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

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

S(x^3\_3) + y^3\_3= 0

S(x^3\_4) + y^3\_4= 0

S(x^3\_8) + y^3\_8= 0

S(x^3\_10) + y^3\_10= 0

S(x^3\_11) + y^3\_11= 0

S(x^3\_12) + y^3\_12= 0

S(x^3\_15) + y^3\_15= 0

S(x^4\_2) + y^4\_2= 0

S(x^4\_3) + y^4\_3= 0

S(x^4\_9) + y^4\_9= 0

S(x^4\_12) + y^4\_12= 0

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

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

the 3 th Minimal Constraint set is:

y^0\_0 + x^1\_4 + k\_0= 0

y^0\_0 + [y^0\_10] + [x^1\_12] + k\_0= 0

y^0\_1 + x^1\_5 + k\_1= 0

y^0\_1 + y^0\_11 + x^1\_13 + k\_1= 0

[y^0\_2] + [y^0\_8] + x^1\_14 + k\_2= 0

y^0\_3 + x^1\_7 + k\_3= 0

y^0\_3 + [y^0\_9] + [x^1\_15] + k\_3= 0

[y^0\_4] + y^0\_11 + [x^1\_9] + k\_4= 0

[y^0\_6] + [y^0\_9] + x^1\_11 + k\_6= 0

y^1\_0 + y^1\_10 + y^1\_13 + x^2\_0 + k\_9= 0

y^1\_0 + x^2\_4 + k\_9= 0

y^1\_1 + y^1\_11 + y^1\_14 + x^2\_1 + k\_15= 0

y^1\_1 + y^1\_11 + x^2\_13 + k\_15= 0

y^1\_2 + x^2\_6 + k\_8= 0

y^1\_2 + y^1\_8 + x^2\_14 + k\_8= 0

y^1\_4 + y^1\_11 + x^2\_9 + k\_10= 0

y^1\_5 + y^1\_8 + x^2\_10 + k\_14= 0

y^1\_7 + y^1\_10 + x^2\_8 + k\_11= 0

y^2\_0 + y^2\_10 + y^2\_13 + x^3\_0 + k\_1= 0

y^2\_1 + y^2\_11 + y^2\_14 + x^3\_1 + k\_7= 0

[y^2\_2] + y^2\_8 + [x^3\_14] + k\_0= 0

y^2\_4 + y^2\_11 + x^3\_9 + k\_2= 0

y^2\_6 + y^2\_9 + x^3\_11 + k\_4= 0

y^3\_0 + x^4\_4 + k\_15= 0

y^3\_1 + y^3\_11 + [y^3\_14] + [x^4\_1] + k\_11= 0

[y^3\_6] + y^3\_9 + [x^4\_11] + k\_10= 0

y^4\_4 + [y^4\_11] + [x^5\_9] + k\_0= 0

S(x^1\_4) + y^1\_4= 0

S(x^1\_5) + y^1\_5= 0

S(x^1\_7) + y^1\_7= 0

S(x^1\_11) + y^1\_11= 0

S(x^1\_13) + y^1\_13= 0

S(x^1\_14) + y^1\_14= 0

S(x^2\_0) + y^2\_0= 0

S(x^2\_1) + y^2\_1= 0

S(x^2\_4) + y^2\_4= 0

S(x^2\_6) + y^2\_6= 0

S(x^2\_8) + y^2\_8= 0

S(x^2\_9) + y^2\_9= 0

S(x^2\_10) + y^2\_10= 0

S(x^2\_13) + y^2\_13= 0

S(x^2\_14) + y^2\_14= 0

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

S(x^3\_1) + y^3\_1= 0

S(x^3\_9) + y^3\_9= 0

S(x^3\_11) + y^3\_11= 0

S(x^4\_4) + y^4\_4= 0

the 4 th Minimal Constraint set is:

y^0\_0 + [y^0\_10] + [y^0\_13] + x^1\_0 + k\_0= 0

y^0\_0 + [y^0\_10] + [x^1\_12] + k\_0= 0

y^1\_0 + x^2\_4 + k\_9= 0

[y^1\_6] + [y^1\_9] + x^2\_11 + k\_12= 0

y^2\_4 + y^2\_11 + x^3\_9 + k\_2= 0

[y^3\_6] + y^3\_9 + [x^4\_11] + k\_10= 0

S(x^1\_0) + y^1\_0= 0

S(x^2\_4) + y^2\_4= 0

S(x^2\_11) + y^2\_11= 0

S(x^3\_9) + y^3\_9= 0

the 5 th Minimal Constraint set is:

y^0\_3 + x^1\_7 + k\_3= 0

y^0\_3 + [y^0\_9] + [x^1\_15] + k\_3= 0

[y^0\_5] + [y^0\_8] + x^1\_10 + k\_5= 0

y^1\_7 + y^1\_10 + x^2\_8 + k\_11= 0

[y^2\_2] + y^2\_8 + [x^3\_14] + k\_0= 0

S(x^1\_7) + y^1\_7= 0

S(x^1\_10) + y^1\_10= 0

S(x^2\_8) + y^2\_8= 0

the 6 th Minimal Constraint set is:

y^0\_3 + [y^0\_9] + [y^0\_12] + x^1\_3 + k\_3= 0

y^0\_3 + [y^0\_9] + [x^1\_15] + k\_3= 0

y^1\_3 + [y^1\_9] + [x^2\_15] + k\_13= 0

S(x^1\_3) + y^1\_3= 0

the 7 th Minimal Constraint set is:

[y^0\_2] + [x^1\_6] + k\_2= 0

the 8 th Minimal Constraint set is:

[y^2\_2] + [x^3\_6] + k\_0= 0

the 9 th Minimal Constraint set is:

[y^4\_1] + [x^5\_5] + k\_3= 0