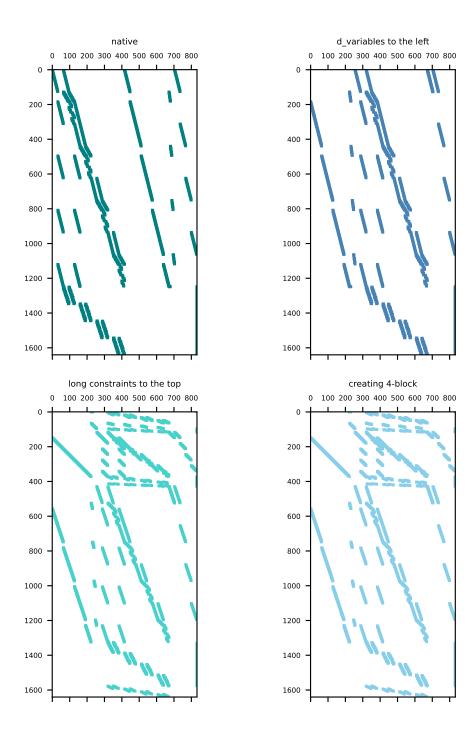
1 Matrix Structure differential.lblock.LBlock, 4 rounds



2 Constraints

$$x_{0} + x_{64} - 2x_{416} + 1a_{0} \ge 0$$

$$x_{0} - x_{416} \ge 0$$

$$-x_{416} + 1a_{0} \ge 0$$

$$x_{64} - x_{416} \ge 0$$

$$x_{1} + x_{65} - 2x_{417} + 1a_{1} \ge 0$$

$$x_{1} - x_{417} \ge 0$$

$$-x_{417} + 1a_{1} \ge 0$$

$$x_{2} + x_{66} - 2x_{418} + 1a_{2} \ge 0$$

$$x_{2} - x_{418} \ge 0$$

$$-x_{418} + 1a_{2} \ge 0$$

$$x_{66} - x_{418} \ge 0$$

$$-x_{418} + 1a_{3} \ge 0$$

$$x_{3} - x_{419} \ge 0$$

$$-x_{419} + 1a_{3} \ge 0$$

$$x_{67} - x_{419} \ge 0$$

$$x_{4} + x_{68} - 2x_{420} + 1a_{4} \ge 0$$

$$x_{68} - x_{420} \ge 0$$

$$x_{5} + x_{69} - 2x_{421} + 1a_{5} \ge 0$$

$$x_{69} - x_{421} \ge 0$$

$$x_{70} - x_{422} \ge 0$$

$$x_{70} - x_{422} \ge 0$$

$$x_{70} - x_{422} \ge 0$$

$$x_{71} - x_{423} \ge 0$$

$$-x_{423} + 1a_{7} \ge 0$$

$$x_{71} - x_{423} \ge 0$$

$$-x_{424} + 1a_{8} \ge 0$$

$$x_{72} - x_{424} \ge 0$$

$$-x_{424} + 1a_{8} \ge 0$$

$$x_{71} - x_{423} \ge 0$$

$$x_{71} - x_{423} \ge 0$$

$$-x_{424} + 1a_{8} \ge 0$$

$$x_{72} - x_{424} \ge 0$$

$$-x_{424} + 1a_{9} \ge 0$$

$$x_{71} - x_{425} \ge 0$$

$$-x_{425} + 1a_{9} \ge 0$$

$$x_{73} - x_{425} \ge 0$$

$$-x_{425} + 1a_{9} \ge 0$$

$$x_{73} - x_{425} \ge 0$$

$$-x_{425} + 1a_{9} \ge 0$$

$$x_{73} - x_{425} \ge 0$$

$$-x_{425} + 1a_{9} \ge 0$$

$$x_{73} - x_{425} \ge 0$$

$$x_{10} - x_{426} \ge 0$$

$$-x_{426} + 1a_{10} \ge 0$$

$$x_{74} - x_{426} \ge 0$$

$$x_{11} + x_{75} - 2x_{427} + 1a_{11} \ge 0$$

$$x_{11} - x_{427} \ge 0$$

$$-x_{427} + 1a_{11} \ge 0$$

$$x_{75} - x_{427} \ge 0$$

$$x_{12} + x_{76} - 2x_{428} + 1a_{12} \ge 0$$

$$x_{12} - x_{428} \ge 0$$

$$-x_{428} + 1a_{12} \ge 0$$

$$x_{76} - x_{428} \ge 0$$

$$-x_{428} + 1a_{13} \ge 0$$

$$x_{13} - x_{429} \ge 0$$

$$-x_{429} + 1a_{13} \ge 0$$

$$x_{17} - x_{429} \ge 0$$

$$-x_{429} + 1a_{13} \ge 0$$

$$x_{17} - x_{429} \ge 0$$

$$x_{14} + x_{78} - 2x_{430} + 1a_{14} \ge 0$$

$$x_{14} - x_{430} \ge 0$$

$$-x_{430} + 1a_{14} \ge 0$$

$$x_{78} - x_{430} \ge 0$$

$$x_{15} + x_{79} - 2x_{431} + 1a_{15} \ge 0$$

$$x_{15} - x_{431} \ge 0$$

$$-x_{431} + 1a_{15} \ge 0$$

$$x_{79} - x_{431} \ge 0$$

$$x_{16} - x_{432} \ge 0$$

$$-x_{431} + 1a_{16} \ge 0$$

$$x_{16} - x_{432} \ge 0$$

$$x_{17} - x_{433} \ge 0$$

$$x_{18} + x_{81} - 2x_{433} + 1a_{17} \ge 0$$

$$x_{17} - x_{433} \ge 0$$

$$x_{18} - x_{434} \ge 0$$

$$-x_{433} + 1a_{17} \ge 0$$

$$x_{17} - x_{433} \ge 0$$

$$x_{18} - x_{434} \ge 0$$

$$-x_{434} + 1a_{18} \ge 0$$

$$x_{19} - x_{435} \ge 0$$

$$-x_{435} + 1a_{19} \ge 0$$

$$x_{19} - x_{435} \ge 0$$

$$-x_{436} + 1a_{20} \ge 0$$

$$x_{20} - x_{436} \ge 0$$

$$-x_{436} + 1a_{20} \ge 0$$

$$x_{84} - x_{436} \ge 0$$

$$-x_{436} + 1a_{20} \ge 0$$

$$x_{84} - x_{436} \ge 0$$

$$\begin{array}{c} x_{21} + x_{85} - 2x_{437} + 1a_{21} \geq 0 \\ x_{21} - x_{437} \geq 0 \\ -x_{437} + 1a_{21} \geq 0 \\ x_{85} - x_{437} \geq 0 \\ x_{22} + x_{86} - 2x_{438} + 1a_{22} \geq 0 \\ x_{22} - x_{438} \geq 0 \\ -x_{438} + 1a_{22} \geq 0 \\ x_{86} - x_{438} \geq 0 \\ x_{23} + x_{87} - 2x_{439} + 1a_{23} \geq 0 \\ x_{23} - x_{439} \geq 0 \\ -x_{439} + 1a_{23} \geq 0 \\ x_{24} - x_{439} \geq 0 \\ -x_{440} + 1a_{24} \geq 0 \\ x_{24} - x_{440} \geq 0 \\ -x_{440} + 1a_{24} \geq 0 \\ x_{25} - x_{441} \geq 0 \\ x_{25} - x_{441} \geq 0 \\ x_{25} - x_{441} \geq 0 \\ x_{26} - x_{442} \geq 0 \\ x_{26} - x_{442} \geq 0 \\ x_{26} - x_{442} \geq 0 \\ x_{27} - x_{443} \geq 0 \\ x_{29} - x_{444} + 1a_{28} \geq 0 \\ x_{29} - x_{444} \geq 0 \\ x_{29} + x_{93} - 2x_{445} + 1a_{29} \geq 0 \\ x_{29} - x_{445} \geq 0 \\ x_{29} - x_{446} \geq 0 \\ x_{29} - x_{447} \geq 0 \\ x_{29} - x_{446} \geq 0 \\ x_{29} - x_{447} \geq 0 \\ x_{29}$$

```
x_{95} - x_{447} \ge 0
                                                                 x_{64} - d_{224} \ge 0
                                                                 x_{65} - d_{224} \ge 0
                                                                 x_{66} - d_{224} \ge 0
                                                                 x_{67} - d_{224} \ge 0
                                     -x_{64} - x_{65} - x_{66} - x_{67} + d_{224} \ge 0
       4x_{64} + 4x_{65} + 4x_{66} + 4x_{67} - x_{96} - x_{97} - x_{98} - x_{99} \ge 0
     -x_{64} - x_{65} - x_{66} - x_{67} + 4x_{96} + 4x_{97} + 4x_{98} + 4x_{99} \ge 0
                                                                 x_{68} - d_{225} \ge 0
                                                                 x_{69} - d_{225} \ge 0
                                                                  x_{70} - d_{225} \ge 0
                                                                  x_{71} - d_{225} \ge 0
                                     -x_{68} - x_{69} - x_{70} - x_{71} + d_{225} \ge 0
  4x_{68} + 4x_{69} + 4x_{70} + 4x_{71} - x_{100} - x_{101} - x_{102} - x_{103} \ge 0
-x_{68} - x_{69} - x_{70} - x_{71} + 4x_{100} + 4x_{101} + 4x_{102} + 4x_{103} \ge 0
                                                                 x_{72} - d_{226} \ge 0
                                                                  x_{73} - d_{226} \ge 0
                                                                  x_{74} - d_{226} \ge 0
                                                                  x_{75} - d_{226} \ge 0
                                     -x_{72} - x_{73} - x_{74} - x_{75} + d_{226} \ge 0
  4x_{72} + 4x_{73} + 4x_{74} + 4x_{75} - x_{104} - x_{105} - x_{106} - x_{107} \ge 0
-x_{72} - x_{73} - x_{74} - x_{75} + 4x_{104} + 4x_{105} + 4x_{106} + 4x_{107} \ge 0
                                                                 x_{76} - d_{227} \ge 0
                                                                  x_{77} - d_{227} \ge 0
                                                                 x_{78} - d_{227} \ge 0
                                                                  x_{79} - d_{227} \ge 0
                                     -x_{76} - x_{77} - x_{78} - x_{79} + d_{227} \ge 0
  4x_{76} + 4x_{77} + 4x_{78} + 4x_{79} - x_{108} - x_{109} - x_{110} - x_{111} \ge 0
-x_{76} - x_{77} - x_{78} - x_{79} + 4x_{108} + 4x_{109} + 4x_{110} + 4x_{111} \ge 0
                                                                 x_{80} - d_{228} \ge 0
                                                                 x_{81} - d_{228} \ge 0
                                                                 x_{82} - d_{228} \ge 0
                                                                 x_{83} - d_{228} \ge 0
                                     -x_{80} - x_{81} - x_{82} - x_{83} + d_{228} \ge 0
  4x_{80} + 4x_{81} + 4x_{82} + 4x_{83} - x_{112} - x_{113} - x_{114} - x_{115} \ge 0
-x_{80} - x_{81} - x_{82} - x_{83} + 4x_{112} + 4x_{113} + 4x_{114} + 4x_{115} \ge 0
                                                                 x_{84} - d_{229} \ge 0
                                                                  x_{85} - d_{229} \ge 0
                                                                 x_{86} - d_{229} \ge 0
                                                                 x_{87} - d_{229} \ge 0
                                     -x_{84} - x_{85} - x_{86} - x_{87} + d_{229} \ge 0
  4x_{84} + 4x_{85} + 4x_{86} + 4x_{87} - x_{116} - x_{117} - x_{118} - x_{119} \ge 0
-x_{84} - x_{85} - x_{86} - x_{87} + 4x_{116} + 4x_{117} + 4x_{118} + 4x_{119} \ge 0
```

$$x_{88} - d_{230} \ge 0$$

$$x_{89} - d_{230} \ge 0$$

$$x_{90} - d_{230} \ge 0$$

$$x_{91} - d_{230} \ge 0$$

$$x_{91} - d_{230} \ge 0$$

$$-x_{88} - x_{89} - x_{90} - x_{91} + d_{230} \ge 0$$

$$4x_{88} + 4x_{89} + 4x_{90} + 4x_{91} - x_{120} - x_{121} - x_{122} - x_{123} \ge 0$$

$$-x_{88} - x_{89} - x_{90} - x_{91} + 4x_{120} + 4x_{121} + 4x_{122} + 4x_{123} \ge 0$$

$$x_{92} - d_{231} \ge 0$$

$$x_{93} - d_{231} \ge 0$$

$$x_{94} - d_{231} \ge 0$$

$$x_{94} - d_{231} \ge 0$$

$$x_{95} - d_{231} \ge 0$$

$$-x_{92} - x_{93} - x_{94} - x_{95} + d_{231} \ge 0$$

$$-x_{92} - x_{93} - x_{94} - x_{95} + 4x_{124} + x_{125} - x_{126} - x_{127} \ge 0$$

$$-x_{92} - x_{93} - x_{94} - x_{95} + 4x_{124} + 4x_{125} + 4x_{126} + 4x_{127} \ge 0$$

$$x_{100} - d_0 \ge 0$$

$$x_{128} - d_0 \ge 0$$

$$x_{130} - d_0 \ge 0$$

$$x_{128} - d_0 \ge 0$$

$$x_{133} + x_{101} + x_{129} - 2d_1 \ge 0$$

$$x_{101} - d_1 \ge 0$$

$$x_{134} - d_0 \ge 0$$

$$x_{144} - d_2 \ge 0$$

$$x_{154} - d_0 \ge 0$$

$$x_{155} - d_0 \ge$$

$$x_{111} - d_7 \ge 0$$

$$x_{39} - d_7 \ge 0$$

$$x_{135} - d_7 \ge 0$$

$$x_{40} + x_{96} + x_{136} - 2d_8 \ge 0$$

$$x_{40} - d_8 \ge 0$$

$$x_{40} - d_8 \ge 0$$

$$x_{136} - d_8 \ge 0$$

$$x_{136} - d_8 \ge 0$$

$$x_{136} - d_8 \ge 0$$

$$x_{137} - d_9 \ge 0$$

$$x_{137} - d_{10} \ge 0$$

$$x_{138} - d_{10} \ge 0$$

$$x_{138} - d_{10} \ge 0$$

$$x_{138} - d_{10} \ge 0$$

$$x_{139} - d_{11} \ge 0$$

$$x_{139} - d_{11} \ge 0$$

$$x_{140} - d_{12} \ge 0$$

$$x_{144} - d_{12} \ge 0$$

$$x_{140} - d_{13} \ge 0$$

$$x_{140} - d_{14} \ge 0$$

$$x_{140} - d_{14} \ge 0$$

$$x_{140} - d_{14} \ge 0$$

$$x_{141} - d_{13} \ge 0$$

$$x_{142} - d_{14} \ge 0$$

$$x_{143} - d_{15} \ge 0$$

$$x_{147} - d_{15} \ge 0$$

$$x_{147} - d_{15} \ge 0$$

$$x_{148} + x_{116} + x_{144} - 2d_{16} \ge 0$$

$$x_{148} - d_{16} \ge 0$$

$$x_{149} - d_{17} \ge 0$$

$$x_{149} - d_{17} \ge 0$$

$$x_{149} - d_{17} \ge 0$$

$$x_{145} - d_{17} \ge 0$$

$$\begin{array}{c} x_{50} + x_{118} + x_{146} - 2d_{18} \geq 0 \\ x_{118} - d_{18} \geq 0 \\ x_{50} - d_{18} \geq 0 \\ x_{146} - d_{18} \geq 0 \\ x_{146} - d_{18} \geq 0 \\ x_{51} + x_{119} + x_{147} - 2d_{19} \geq 0 \\ x_{119} - d_{19} \geq 0 \\ x_{51} - d_{19} \geq 0 \\ x_{147} - d_{19} \geq 0 \\ x_{52} + x_{124} + x_{148} - 2d_{20} \geq 0 \\ x_{124} - d_{20} \geq 0 \\ x_{124} - d_{20} \geq 0 \\ x_{124} - d_{20} \geq 0 \\ x_{148} - d_{20} \geq 0 \\ x_{148} - d_{20} \geq 0 \\ x_{149} - d_{21} \geq 0 \\ x_{149} - d_{21} \geq 0 \\ x_{149} - d_{21} \geq 0 \\ x_{150} - d_{22} \geq 0 \\ x_{150} - d_{22} \geq 0 \\ x_{150} - d_{22} \geq 0 \\ x_{157} - d_{23} \geq 0 \\ x_{157} - d_{25} \geq 0 \\ x_{258} + x_{114} + x_{155} - 2d_{26} \geq 0 \\ x_{154} - d_{26} \geq 0 \\ x_{154} - d_{26} \geq 0 \\ x_{155} - d_{27} \geq 0 \\ x_{150} - d_{28} \geq 0 \\ x_{100} - d_{28} \geq 0 \\ x_{20} - d_{$$

$$x_{156} - d_{28} \ge 0$$

$$x_{61} + x_{121} + x_{157} - 2d_{29} \ge 0$$

$$x_{121} - d_{29} \ge 0$$

$$x_{61} - d_{29} \ge 0$$

$$x_{157} - d_{29} \ge 0$$

$$x_{157} - d_{29} \ge 0$$

$$x_{157} - d_{29} \ge 0$$

$$x_{122} - d_{30} \ge 0$$

$$x_{122} - d_{30} \ge 0$$

$$x_{122} - d_{30} \ge 0$$

$$x_{158} - d_{30} \ge 0$$

$$x_{158} - d_{30} \ge 0$$

$$x_{158} - d_{31} \ge 0$$

$$x_{133} - d_{31} \ge 0$$

$$x_{134} + x_{160} - 2d_{32} + 1k_0 \ge 0$$

$$x_{160} - d_{32} \ge 0$$

$$x_{129} + x_{161} - 2d_{33} + 1k_1 \ge 0$$

$$x_{160} - d_{32} \ge 0$$

$$x_{130} + x_{162} - 2d_{34} + 1k_2 \ge 0$$

$$x_{130} - d_{34} \ge 0$$

$$-d_{34} + 1k_2 \ge 0$$

$$x_{130} - d_{34} \ge 0$$

$$-d_{34} + 1k_2 \ge 0$$

$$x_{162} - d_{34} \ge 0$$

$$-d_{35} + 1k_3 \ge 0$$

$$x_{163} - d_{35} \ge 0$$

$$x_{132} + x_{164} - 2d_{36} + 1k_4 \ge 0$$

$$x_{164} - d_{36} \ge 0$$

$$-d_{36} + 1k_4 \ge 0$$

$$x_{164} - d_{36} \ge 0$$

$$-d_{37} + 1k_5 \ge 0$$

$$x_{133} - d_{37} \ge 0$$

$$-d_{37} + 1k_5 \ge 0$$

$$x_{134} - d_{38} \ge 0$$

$$-d_{38} + 1k_6 \ge 0$$

$$x_{134} - d_{38} \ge 0$$

$$-d_{38} + 1k_6 \ge 0$$

$$x_{135} - d_{39} \ge 0$$

$$x_{135} - d_{39} \ge 0$$

$$-d_{39} + 1k_{7} \ge 0$$

$$x_{167} - d_{39} \ge 0$$

$$x_{136} + x_{168} - 2d_{40} + 1k_{8} \ge 0$$

$$-d_{40} + 1k_{8} \ge 0$$

$$x_{168} - d_{40} \ge 0$$

$$x_{168} - d_{40} \ge 0$$

$$x_{168} - d_{40} \ge 0$$

$$x_{137} + x_{169} - 2d_{41} + 1k_{9} \ge 0$$

$$x_{137} - d_{41} \ge 0$$

$$-d_{41} + 1k_{9} \ge 0$$

$$x_{169} - d_{41} \ge 0$$

$$x_{138} + x_{170} - 2d_{42} + 1k_{10} \ge 0$$

$$x_{138} - d_{42} \ge 0$$

$$-d_{42} + 1k_{10} \ge 0$$

$$x_{170} - d_{42} \ge 0$$

$$x_{139} + x_{171} - 2d_{43} + 1k_{11} \ge 0$$

$$x_{139} - d_{43} \ge 0$$

$$-d_{43} + 1k_{11} \ge 0$$

$$x_{171} - d_{43} \ge 0$$

$$x_{140} - d_{44} \ge 0$$

$$-d_{44} + 1k_{12} \ge 0$$

$$x_{172} - d_{44} \ge 0$$

$$x_{141} - d_{45} \ge 0$$

$$-d_{44} + 1k_{13} \ge 0$$

$$x_{141} - d_{45} \ge 0$$

$$-d_{45} + 1k_{13} \ge 0$$

$$x_{141} - d_{45} \ge 0$$

$$-d_{45} + 1k_{13} \ge 0$$

$$x_{142} - d_{46} \ge 0$$

$$-d_{46} + 1k_{14} \ge 0$$

$$x_{142} - d_{46} \ge 0$$

$$-d_{46} + 1k_{14} \ge 0$$

$$x_{174} - d_{46} \ge 0$$

$$-d_{46} + 1k_{15} \ge 0$$

$$x_{143} - d_{47} \ge 0$$

$$x_{144} - d_{46} \ge 0$$

$$-d_{47} + 1k_{15} \ge 0$$

$$x_{145} - d_{49} \ge 0$$

$$-d_{48} + 1k_{16} \ge 0$$

$$x_{146} - d_{48} \ge 0$$

$$-d_{49} + 1k_{17} \ge 0$$

$$x_{145} - d_{49} \ge 0$$

$$-d_{49} + 1k_{17} \ge 0$$

$$x_{177} - d_{49} \ge 0$$

$$x_{177} - d_{49} \ge 0$$

$$-d_{49} + 1k_{17} \ge 0$$

$$x_{177} - d_{49} \ge 0$$

$$x_{177} - d_{49} \ge 0$$

$$x_{146} - d_{50} \ge 0$$

$$-d_{50} + 1k_{18} \ge 0$$

$$x_{178} - d_{50} \ge 0$$

$$x_{147} - d_{51} \ge 0$$

$$x_{147} - d_{51} \ge 0$$

$$-d_{51} + 1k_{19} \ge 0$$

$$x_{179} - d_{51} \ge 0$$

$$x_{148} + x_{180} - 2d_{52} + 1k_{20} \ge 0$$

$$x_{148} - d_{52} \ge 0$$

$$-d_{52} + 1k_{20} \ge 0$$

$$x_{180} - d_{52} \ge 0$$

$$x_{149} + x_{181} - 2d_{53} + 1k_{21} \ge 0$$

$$x_{149} - d_{53} \ge 0$$

$$x_{149} - d_{53} \ge 0$$

$$x_{150} + x_{182} - 2d_{54} + 1k_{22} \ge 0$$

$$x_{150} - d_{54} \ge 0$$

$$-d_{54} + 1k_{22} \ge 0$$

$$x_{150} - d_{54} \ge 0$$

$$-d_{54} + 1k_{22} \ge 0$$

$$x_{182} - d_{54} \ge 0$$

$$x_{151} - d_{55} \ge 0$$

$$-d_{55} + 1k_{23} \ge 0$$

$$x_{151} - d_{55} \ge 0$$

$$-d_{55} + 1k_{23} \ge 0$$

$$x_{152} + x_{183} - 2d_{55} + 1k_{23} \ge 0$$

$$x_{152} - d_{56} \ge 0$$

$$-d_{56} + 1k_{24} \ge 0$$

$$x_{153} - d_{55} \ge 0$$

$$-d_{56} + 1k_{24} \ge 0$$

$$x_{153} - d_{55} \ge 0$$

$$-d_{57} + 1k_{25} \ge 0$$

$$x_{153} - d_{57} \ge 0$$

$$x_{154} + x_{185} - 2d_{57} + 1k_{25} \ge 0$$

$$x_{154} - d_{56} \ge 0$$

$$x_{154} - d_{56} \ge 0$$

$$x_{155} - d_{59} \ge 0$$

$$-d_{59} + 1k_{27} \ge 0$$

$$x_{156} - d_{59} \ge 0$$

$$-d_{59} + 1k_{27} \ge 0$$

$$x_{156} - d_{60} \ge 0$$

$$-d_{60} + 1k_{28} \ge 0$$

$$x_{188} - d_{60} \ge 0$$

$$-d_{60} + 1k_{28} \ge 0$$

$$x_{188} - d_{60} \ge 0$$

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x_{157} + x_{189} - 2d_{61} + 1k_{29} \ge 0
                                                                      x_{157} - d_{61} \ge 0
                                                                    -d_{61} + 1k_{29} \ge 0
                                                                      x_{189} - d_{61} \ge 0
                                                x_{158} + x_{190} - 2d_{62} + 1k_{30} \ge 0
                                                                      x_{158} - d_{62} \ge 0
                                                                    -d_{62} + 1k_{30} \ge 0
                                                                      x_{190} - d_{62} \ge 0
                                                x_{159} + x_{191} - 2d_{63} + 1k_{31} \ge 0
                                                                      x_{159} - d_{63} \ge 0
                                                                    -d_{63} + 1k_{31} \ge 0
                                                                      x_{191} - d_{63} \ge 0
                                                                     x_{160} - d_{232} \ge 0
                                                                     x_{161} - d_{232} \ge 0
                                                                     x_{162} - d_{232} \ge 0
                                                                     x_{163} - d_{232} \ge 0
                                     -x_{160} - x_{161} - x_{162} - x_{163} + d_{232} \ge 0
  4x_{160} + 4x_{161} + 4x_{162} + 4x_{163} - x_{192} - x_{193} - x_{194} - x_{195} \ge 0
-x_{160} - x_{161} - x_{162} - x_{163} + 4x_{192} + 4x_{193} + 4x_{194} + 4x_{195} \ge 0
                                                                     x_{164} - d_{233} \ge 0
                                                                     x_{165} - d_{233} \ge 0
                                                                     x_{166} - d_{233} \ge 0
                                                                     x_{167} - d_{233} \ge 0
                                     -x_{164} - x_{165} - x_{166} - x_{167} + d_{233} \ge 0
  4x_{164} + 4x_{165} + 4x_{166} + 4x_{167} - x_{196} - x_{197} - x_{198} - x_{199} \ge 0
-x_{164} - x_{165} - x_{166} - x_{167} + 4x_{196} + 4x_{197} + 4x_{198} + 4x_{199} \ge 0
                                                                     x_{168} - d_{234} \ge 0
                                                                     x_{169} - d_{234} \ge 0
                                                                     x_{170} - d_{234} \ge 0
                                                                     x_{171} - d_{234} \ge 0
                                    -x_{168} - x_{169} - x_{170} - x_{171} + d_{234} \ge 0
  4x_{168} + 4x_{169} + 4x_{170} + 4x_{171} - x_{200} - x_{201} - x_{202} - x_{203} \ge 0
-x_{168} - x_{169} - x_{170} - x_{171} + 4x_{200} + 4x_{201} + 4x_{202} + 4x_{203} \ge 0
                                                                     x_{172} - d_{235} \ge 0
                                                                     x_{173} - d_{235} \ge 0
                                                                     x_{174} - d_{235} \ge 0
                                                                     x_{175} - d_{235} \ge 0
                                     -x_{172} - x_{173} - x_{174} - x_{175} + d_{235} \ge 0
  4x_{172} + 4x_{173} + 4x_{174} + 4x_{175} - x_{204} - x_{205} - x_{206} - x_{207} \ge 0
-x_{172} - x_{173} - x_{174} - x_{175} + 4x_{204} + 4x_{205} + 4x_{206} + 4x_{207} \ge 0
                                                                     x_{176} - d_{236} \ge 0
                                                                     x_{177} - d_{236} \ge 0
                                                                     x_{178} - d_{236} \ge 0
```

$$x_{179} - d_{236} \ge 0$$

$$-x_{176} - x_{177} - x_{178} - x_{179} + d_{236} \ge 0$$

$$4x_{176} + 4x_{177} + 4x_{178} + 4x_{179} - x_{208} - x_{209} - x_{210} - x_{211} \ge 0$$

$$-x_{176} - x_{177} - x_{178} - x_{179} + 4x_{208} + 4x_{209} + 4x_{210} + 4x_{211} \ge 0$$

$$x_{180} - d_{237} \ge 0$$

$$x_{181} - d_{237} \ge 0$$

$$x_{182} - d_{237} \ge 0$$

$$x_{183} - d_{237} \ge 0$$

$$x_{183} - d_{237} \ge 0$$

$$x_{184} - d_{238} \ge 0$$

$$-x_{180} - x_{181} - x_{182} - x_{183} + d_{237} \ge 0$$

$$-x_{180} - x_{181} - x_{182} - x_{183} + d_{237} \ge 0$$

$$4x_{180} + 4x_{181} + 4x_{182} + 4x_{183} - x_{212} - x_{213} - x_{214} - x_{215} \ge 0$$

$$-x_{180} - x_{181} - x_{182} - x_{183} + 4x_{212} + 4x_{213} + 4x_{214} + 4x_{215} \ge 0$$

$$x_{184} - d_{238} \ge 0$$

$$x_{185} - d_{238} \ge 0$$

$$x_{186} - d_{238} \ge 0$$

$$x_{187} - d_{238} \ge 0$$

$$x_{187} - d_{238} \ge 0$$

$$x_{187} - d_{238} \ge 0$$

$$x_{189} - d_{239} \ge 0$$

$$x_{189} - d_{239} \ge 0$$

$$x_{189} - d_{239} \ge 0$$

$$x_{199} - d_{239} \ge 0$$

$$x_{199} - d_{239} \ge 0$$

$$x_{218} - x_{199} - x_{191} + d_{239} \ge 0$$

$$x_{219} - d_{65} \ge 0$$

$$x_{33} - d_{64} \ge 0$$

$$x_{197} - d_{65} \ge 0$$

$$x_{199} - d_{65} \ge 0$$

$$x_{199} - d_{67} \ge 0$$

$$x_{110} - d_{68} \ge 0$$

$$x_{110} - d_{68} \ge 0$$

$$x_{110} - d_{68} \ge 0$$

$$\begin{array}{c} x_{36} - d_{68} \geq 0 \\ x_{132} - d_{68} \geq 0 \\ x_{37} + x_{133} + x_{205} - 2d_{69} \geq 0 \\ x_{205} - d_{69} \geq 0 \\ x_{37} - d_{69} \geq 0 \\ x_{133} - d_{69} \geq 0 \\ x_{133} - d_{69} \geq 0 \\ x_{206} - d_{70} \geq 0 \\ x_{206} - d_{70} \geq 0 \\ x_{38} + x_{134} + x_{206} - 2d_{70} \geq 0 \\ x_{38} - d_{70} \geq 0 \\ x_{39} + x_{135} + x_{207} - 2d_{71} \geq 0 \\ x_{207} - d_{71} \geq 0 \\ x_{39} - d_{71} \geq 0 \\ x_{135} - d_{71} \geq 0 \\ x_{135} - d_{71} \geq 0 \\ x_{192} - d_{72} \geq 0 \\ x_{192} - d_{72} \geq 0 \\ x_{193} - d_{72} \geq 0 \\ x_{193} - d_{73} \geq 0 \\ x_{193} - d_{73} \geq 0 \\ x_{194} - d_{74} \geq 0 \\ x_{194} - d_{74} \geq 0 \\ x_{194} - d_{74} \geq 0 \\ x_{195} - d_{75} \geq 0 \\ x_{43} + x_{139} + x_{195} - 2d_{75} \geq 0 \\ x_{43} + x_{139} + x_{195} - 2d_{75} \geq 0 \\ x_{139} - d_{75} \geq 0 \\ x_{44} + x_{140} + x_{200} - 2d_{76} \geq 0 \\ x_{200} - d_{76} \geq 0 \\ x_{44} - d_{76} \geq 0 \\ x_{201} - d_{77} \geq 0 \\ x_{45} - d_{77} \geq 0 \\ x_{46} + x_{142} + x_{202} - 2d_{78} \geq 0 \\ x_{202} - d_{78} \geq 0 \\ x_{46} - d_{78} \geq 0 \\ x_{142} - d_{78} \geq 0 \\ x_{144} - d_{78} \geq 0$$

$$x_{203} - d_{79} \ge 0$$

$$x_{47} - d_{79} \ge 0$$

$$x_{143} - d_{79} \ge 0$$

$$x_{143} - d_{79} \ge 0$$

$$x_{212} - d_{80} \ge 0$$

$$x_{212} - d_{80} \ge 0$$

$$x_{48} - d_{80} \ge 0$$

$$x_{144} - d_{80} \ge 0$$

$$x_{145} - d_{81} \ge 0$$

$$x_{214} - d_{82} \ge 0$$

$$x_{214} - d_{82} \ge 0$$

$$x_{214} - d_{82} \ge 0$$

$$x_{215} - d_{83} \ge 0$$

$$x_{215} - d_{84} \ge 0$$

$$x_{220} - d_{84} \ge 0$$

$$x_{220} - d_{84} \ge 0$$

$$x_{220} - d_{84} \ge 0$$

$$x_{210} - d_{85} \ge 0$$

$$x_{211} - d_{85} \ge 0$$

$$x_{221} - d_{85} \ge 0$$

$$x_{222} - d_{86} \ge 0$$

$$x_{23} - d_{87} \ge 0$$

$$x_{24} - d_{86} \ge 0$$

$$x_{25} - d_{86} \ge 0$$

$$x_{25} - d_{86} \ge 0$$

$$x_{26} - d_{88} \ge 0$$

$$x_{26} - d_{89} \ge 0$$

$$\begin{array}{c} x_{58} + x_{154} + x_{210} - 2d_{90} \geq 0 \\ x_{210} - d_{90} \geq 0 \\ x_{58} - d_{90} \geq 0 \\ x_{154} - d_{90} \geq 0 \\ x_{59} + x_{155} + x_{211} - 2d_{91} \geq 0 \\ x_{211} - d_{91} \geq 0 \\ x_{59} - d_{91} \geq 0 \\ x_{155} - d_{91} \geq 0 \\ x_{155} - d_{91} \geq 0 \\ x_{216} - d_{92} \geq 0 \\ x_{216} - d_{92} \geq 0 \\ x_{216} - d_{92} \geq 0 \\ x_{60} + x_{156} + x_{217} - 2d_{93} \geq 0 \\ x_{156} - d_{92} \geq 0 \\ x_{156} - d_{92} \geq 0 \\ x_{157} - d_{93} \geq 0 \\ x_{217} - d_{93} \geq 0 \\ x_{217} - d_{93} \geq 0 \\ x_{217} - d_{93} \geq 0 \\ x_{218} - d_{94} \geq 0 \\ x_{219} - d_{95} \geq 0 \\ x_{219} - d_{95} \geq 0 \\ x_{219} - d_{95} \geq 0 \\ x_{224} + x_{256} - 2d_{96} + 1k_{32} \geq 0 \\ x_{224} - d_{96} \geq 0 \\ -d_{96} + 1k_{32} \geq 0 \\ x_{225} - d_{96} \geq 0 \\ x_{226} + x_{258} - 2d_{98} + 1k_{34} \geq 0 \\ x_{226} - d_{98} \geq 0 \\ x_{227} - d_{99} \geq 0 \\ -d_{99} + 1k_{35} \geq 0 \\ x_{228} - d_{100} \geq 0 \\ -d_{99} + 1k_{35} \geq 0 \\ x_{228} - d_{100} \geq 0 \\ -d_{100} + 1k_{36} \geq 0 \\ -d_{100} + 1k_$$

$$x_{229} + x_{261} - 2d_{101} + 1k_{37} \ge 0$$

$$x_{229} - d_{101} \ge 0$$

$$-d_{101} + 1k_{37} \ge 0$$

$$x_{261} - d_{101} \ge 0$$

$$x_{230} + x_{262} - 2d_{102} + 1k_{38} \ge 0$$

$$x_{230} - d_{102} \ge 0$$

$$-d_{102} + 1k_{38} \ge 0$$

$$x_{262} - d_{102} \ge 0$$

$$x_{231} + x_{263} - 2d_{103} + 1k_{39} \ge 0$$

$$x_{263} - d_{103} \ge 0$$

$$-d_{103} + 1k_{39} \ge 0$$

$$x_{263} - d_{103} \ge 0$$

$$-d_{103} + 1k_{39} \ge 0$$

$$x_{263} - d_{103} \ge 0$$

$$x_{232} + x_{264} - 2d_{104} + 1k_{40} \ge 0$$

$$x_{232} - d_{104} \ge 0$$

$$x_{233} + x_{265} - 2d_{105} + 1k_{41} \ge 0$$

$$x_{233} - d_{105} \ge 0$$

$$x_{234} + d_{106} \ge 0$$

$$-d_{105} + 1k_{41} \ge 0$$

$$x_{265} - d_{105} \ge 0$$

$$x_{234} + d_{106} \ge 0$$

$$-d_{106} + 1k_{42} \ge 0$$

$$x_{266} - d_{106} \ge 0$$

$$x_{235} + x_{267} - 2d_{107} + 1k_{43} \ge 0$$

$$x_{235} - d_{107} \ge 0$$

$$-d_{107} + 1k_{43} \ge 0$$

$$x_{267} - d_{107} \ge 0$$

$$-d_{107} + 1k_{43} \ge 0$$

$$x_{267} - d_{107} \ge 0$$

$$-d_{108} + 1k_{44} \ge 0$$

$$x_{268} - d_{108} \ge 0$$

$$-d_{108} + 1k_{44} \ge 0$$

$$x_{268} - d_{108} \ge 0$$

$$-d_{109} + 1k_{45} \ge 0$$

$$x_{269} - d_{109} \ge 0$$

$$x_{238} + x_{270} - 2d_{110} + 1k_{46} \ge 0$$

$$x_{239} - d_{110} \ge 0$$

$$-d_{110} + 1k_{46} \ge 0$$

$$x_{239} - d_{111} \ge 0$$

$$-d_{111} + 1k_{47} \ge 0$$

$$x_{271} - d_{111} \ge 0$$

$$x_{240} + x_{272} - 2d_{112} + 1k_{48} \ge 0$$

$$x_{240} - d_{112} \ge 0$$

$$-d_{112} + 1k_{48} \ge 0$$

$$x_{272} - d_{112} \ge 0$$

$$x_{241} + x_{273} - 2d_{113} + 1k_{49} \ge 0$$

$$x_{241} - d_{113} \ge 0$$

$$-d_{113} + 1k_{49} \ge 0$$

$$x_{273} - d_{113} \ge 0$$

$$x_{242} + x_{274} - 2d_{114} + 1k_{50} \ge 0$$

$$x_{242} - d_{114} \ge 0$$

$$-d_{114} + 1k_{50} \ge 0$$

$$x_{274} - d_{114} \ge 0$$

$$x_{274} - d_{114} \ge 0$$

$$x_{243} - d_{115} \ge 0$$

$$x_{243} - d_{115} \ge 0$$

$$x_{244} - d_{116} \ge 0$$

$$-d_{115} + 1k_{51} \ge 0$$

$$x_{275} - d_{115} \ge 0$$

$$x_{244} - d_{116} \ge 0$$

$$x_{244} - d_{116} \ge 0$$

$$-d_{116} + 1k_{52} \ge 0$$

$$x_{276} - d_{116} \ge 0$$

$$x_{245} - d_{117} \ge 0$$

$$-d_{117} + 1k_{53} \ge 0$$

$$x_{245} - d_{117} \ge 0$$

$$x_{246} + x_{277} - 2d_{117} + 1k_{53} \ge 0$$

$$x_{277} - d_{117} \ge 0$$

$$x_{246} - d_{118} \ge 0$$

$$x_{277} - d_{117} \ge 0$$

$$x_{246} + x_{278} - 2d_{118} + 1k_{54} \ge 0$$

$$x_{278} - d_{118} \ge 0$$

$$x_{247} - d_{119} \ge 0$$

$$x_{247} - d_{119} \ge 0$$

$$x_{248} + x_{279} - 2d_{119} + 1k_{55} \ge 0$$

$$x_{279} - d_{119} \ge 0$$

$$x_{248} - d_{120} \ge 0$$

$$-d_{120} + 1k_{56} \ge 0$$

$$x_{249} - d_{121} \ge 0$$

$$-d_{121} + 1k_{57} \ge 0$$

$$x_{249} - d_{121} \ge 0$$

$$-d_{121} + 1k_{57} \ge 0$$

$$x_{249} - d_{121} \ge 0$$

$$-d_{121} + 1k_{57} \ge 0$$

$$x_{249} - d_{121} \ge 0$$

$$-d_{121} + 1k_{57} \ge 0$$

$$x_{249} - d_{121} \ge 0$$

$$-d_{121} + 1k_{57} \ge 0$$

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x_{250} - d_{122} \ge 0
                                                                   -d_{122} + 1k_{58} \ge 0
                                                                     x_{282} - d_{122} \ge 0
                                               x_{251} + x_{283} - 2d_{123} + 1k_{59} \ge 0
                                                                     x_{251} - d_{123} \ge 0
                                                                   -d_{123} + 1k_{59} \ge 0
                                                                     x_{283} - d_{123} \ge 0
                                               x_{252} + x_{284} - 2d_{124} + 1k_{60} \ge 0
                                                                     x_{252} - d_{124} \ge 0
                                                                   -d_{124} + 1k_{60} \ge 0
                                                                     x_{284} - d_{124} \ge 0
                                               x_{253} + x_{285} - 2d_{125} + 1k_{61} \ge 0
                                                                     x_{253} - d_{125} \ge 0
                                                                   -d_{125} + 1k_{61} \ge 0
                                                                     x_{285} - d_{125} \ge 0
                                               x_{254} + x_{286} - 2d_{126} + 1k_{62} \ge 0
                                                                     x_{254} - d_{126} \ge 0
                                                                   -d_{126} + 1k_{62} \ge 0
                                                                     x_{286} - d_{126} \ge 0
                                               x_{255} + x_{287} - 2d_{127} + 1k_{63} \ge 0
                                                                     x_{255} - d_{127} \ge 0
                                                                   -d_{127} + 1k_{63} \ge 0
                                                                     x_{287} - d_{127} \ge 0
                                                                     x_{256} - d_{240} \ge 0
                                                                     x_{257} - d_{240} \ge 0
                                                                     x_{258} - d_{240} \ge 0
                                                                     x_{259} - d_{240} \ge 0
                                     -x_{256} - x_{257} - x_{258} - x_{259} + d_{240} \ge 0
  4x_{256} + 4x_{257} + 4x_{258} + 4x_{259} - x_{288} - x_{289} - x_{290} - x_{291} \ge 0
-x_{256} - x_{257} - x_{258} - x_{259} + 4x_{288} + 4x_{289} + 4x_{290} + 4x_{291} \ge 0
                                                                     x_{260} - d_{241} \ge 0
                                                                     x_{261} - d_{241} \ge 0
                                                                     x_{262} - d_{241} \ge 0
                                                                     x_{263} - d_{241} \ge 0
                                     -x_{260} - x_{261} - x_{262} - x_{263} + d_{241} \ge 0
  4x_{260} + 4x_{261} + 4x_{262} + 4x_{263} - x_{292} - x_{293} - x_{294} - x_{295} \ge 0
-x_{260} - x_{261} - x_{262} - x_{263} + 4x_{292} + 4x_{293} + 4x_{294} + 4x_{295} \ge 0
                                                                     x_{264} - d_{242} \ge 0
                                                                     x_{265} - d_{242} \ge 0
                                                                     x_{266} - d_{242} \ge 0
                                                                     x_{267} - d_{242} \ge 0
                                     -x_{264} - x_{265} - x_{266} - x_{267} + d_{242} \ge 0
  4x_{264} + 4x_{265} + 4x_{266} + 4x_{267} - x_{296} - x_{297} - x_{298} - x_{299} \ge 0
```

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-x_{264} - x_{265} - x_{266} - x_{267} + 4x_{296} + 4x_{297} + 4x_{298} + 4x_{299} \ge 0
                                                                     x_{268} - d_{243} \ge 0
                                                                     x_{269} - d_{243} \ge 0
                                                                     x_{270} - d_{243} \ge 0
                                                                     x_{271} - d_{243} \ge 0
                                     -x_{268} - x_{269} - x_{270} - x_{271} + d_{243} \ge 0
  4x_{268} + 4x_{269} + 4x_{270} + 4x_{271} - x_{300} - x_{301} - x_{302} - x_{303} \ge 0
-x_{268} - x_{269} - x_{270} - x_{271} + 4x_{300} + 4x_{301} + 4x_{302} + 4x_{303} \ge 0
                                                                     x_{272} - d_{244} \ge 0
                                                                     x_{273} - d_{244} \ge 0
                                                                     x_{274} - d_{244} \ge 0
                                                                     x_{275} - d_{244} \ge 0
                                     -x_{272} - x_{273} - x_{274} - x_{275} + d_{244} \ge 0
  4x_{272} + 4x_{273} + 4x_{274} + 4x_{275} - x_{304} - x_{305} - x_{306} - x_{307} \ge 0
-x_{272} - x_{273} - x_{274} - x_{275} + 4x_{304} + 4x_{305} + 4x_{306} + 4x_{307} \ge 0
                                                                     x_{276} - d_{245} \ge 0
                                                                     x_{277} - d_{245} \ge 0
                                                                     x_{278} - d_{245} \ge 0
                                                                     x_{279} - d_{245} \ge 0
                                     -x_{276} - x_{277} - x_{278} - x_{279} + d_{245} \ge 0
  4x_{276} + 4x_{277} + 4x_{278} + 4x_{279} - x_{308} - x_{309} - x_{310} - x_{311} \ge 0
-x_{276} - x_{277} - x_{278} - x_{279} + 4x_{308} + 4x_{309} + 4x_{310} + 4x_{311} \ge 0
                                                                     x_{280} - d_{246} \ge 0
                                                                     x_{281} - d_{246} \ge 0
                                                                     x_{282} - d_{246} \ge 0
                                                                     x_{283} - d_{246} \ge 0
                                     -x_{280} - x_{281} - x_{282} - x_{283} + d_{246} \ge 0
  4x_{280} + 4x_{281} + 4x_{282} + 4x_{283} - x_{312} - x_{313} - x_{314} - x_{315} \ge 0
-x_{280} - x_{281} - x_{282} - x_{283} + 4x_{312} + 4x_{313} + 4x_{314} + 4x_{315} \ge 0
                                                                     x_{284} - d_{247} \ge 0
                                                                     x_{285} - d_{247} \ge 0
                                                                     x_{286} - d_{247} \ge 0
                                                                     x_{287} - d_{247} \ge 0
                                     -x_{284} - x_{285} - x_{286} - x_{287} + d_{247} \ge 0
  4x_{284} + 4x_{285} + 4x_{286} + 4x_{287} - x_{316} - x_{317} - x_{318} - x_{319} \ge 0
-x_{284} - x_{285} - x_{286} - x_{287} + 4x_{316} + 4x_{317} + 4x_{318} + 4x_{319} \ge 0
                                                x_{32} + x_{128} + x_{292} - 2d_{128} \ge 0
                                                                     x_{292} - d_{128} \ge 0
                                                                      x_{32} - d_{128} \ge 0
                                                                     x_{128} - d_{128} \ge 0
                                                x_{33} + x_{129} + x_{293} - 2d_{129} \ge 0
                                                                     x_{293} - d_{129} \ge 0
                                                                      x_{33} - d_{129} \ge 0
```

$$x_{129} - d_{129} \ge 0$$

$$x_{34} + x_{130} + x_{294} - 2d_{130} \ge 0$$

$$x_{294} - d_{130} \ge 0$$

$$x_{130} - d_{130} \ge 0$$

$$x_{130} - d_{130} \ge 0$$

$$x_{35} + x_{131} + x_{295} - 2d_{131} \ge 0$$

$$x_{295} - d_{131} \ge 0$$

$$x_{35} - d_{131} \ge 0$$

$$x_{36} + x_{132} + x_{300} - 2d_{132} \ge 0$$

$$x_{36} - d_{132} \ge 0$$

$$x_{37} - d_{133} \ge 0$$

$$x_{39} - d_{133} \ge 0$$

$$x_{39} - d_{133} \ge 0$$

$$x_{39} - d_{134} \ge 0$$

$$x_{38} - d_{134} \ge 0$$

$$x_{39} + x_{135} + x_{303} - 2d_{135} \ge 0$$

$$x_{39} - d_{135} \ge 0$$

$$x_{39} - d_{135} \ge 0$$

$$x_{40} + x_{136} + x_{288} - 2d_{136} \ge 0$$

$$x_{288} - d_{136} \ge 0$$

$$x_{40} - d_{136} \ge 0$$

$$x_{40} - d_{136} \ge 0$$

$$x_{41} - d_{137} \ge 0$$

$$x_{42} + x_{138} + x_{290} - 2d_{138} \ge 0$$

$$x_{42} - d_{138} \ge 0$$

$$x_{42} - d_{138} \ge 0$$

$$x_{43} - d_{139} \ge 0$$

$$x_{43} - d_{139} \ge 0$$

$$x_{43} - d_{139} \ge 0$$

$$x_{44} - d_{139} \ge 0$$

$$x_{44} - d_{139} \ge 0$$

$$x_{43} - d_{139} \ge 0$$

$$x_{43} - d_{139} \ge 0$$

$$x_{44} - d_{139} \ge 0$$

$$x_{44} - d_{139} \ge 0$$

$$x_{45} - d_{139} \ge 0$$

$$x_{46} - d_{140} \ge 0$$

$$x_{140} - d_{140} \ge 0$$

$$x_{140} - d_{140} \ge 0$$

$$x_{140} - d_{140} \ge 0$$

$$x_{297} - d_{141} \ge 0$$

$$x_{45} - d_{141} \ge 0$$

$$x_{45} - d_{141} \ge 0$$

$$x_{141} - d_{141} \ge 0$$

$$x_{46} + x_{142} + x_{298} - 2d_{142} \ge 0$$

$$x_{298} - d_{142} \ge 0$$

$$x_{46} - d_{142} \ge 0$$

$$x_{46} - d_{142} \ge 0$$

$$x_{46} - d_{142} \ge 0$$

$$x_{47} - d_{143} \ge 0$$

$$x_{299} - d_{143} \ge 0$$

$$x_{299} - d_{143} \ge 0$$

$$x_{47} - d_{143} \ge 0$$

$$x_{47} - d_{143} \ge 0$$

$$x_{48} + x_{144} + x_{308} - 2d_{144} \ge 0$$

$$x_{308} - d_{144} \ge 0$$

$$x_{48} - d_{144} \ge 0$$

$$x_{49} - d_{145} \ge 0$$

$$x_{50} + x_{146} + x_{310} - 2d_{146} \ge 0$$

$$x_{50} - d_{146} \ge 0$$

$$x_{50} - d_{146} \ge 0$$

$$x_{51} - d_{147} \ge 0$$

$$x_{52} + x_{148} + x_{316} - 2d_{148} \ge 0$$

$$x_{51} - d_{149} \ge 0$$

$$x_{53} - d_{149} \ge 0$$

$$x_{53} - d_{149} \ge 0$$

$$x_{53} - d_{149} \ge 0$$

$$x_{54} - d_{150} \ge 0$$

$$x_{54} - d_{150} \ge 0$$

$$x_{55} + x_{151} + x_{319} - 2d_{151} \ge 0$$

$$x_{319} - d_{151} \ge 0$$

$$x_{55} - d_{151} \ge 0$$

$$x_{151} - d_{151} \ge 0$$

$$x_{56} + x_{152} + x_{304} - 2d_{152} \ge 0$$

$$x_{304} - d_{152} \ge 0$$

$$x_{56} - d_{152} \ge 0$$

$$x_{152} - d_{152} \ge 0$$

$$x_{152} - d_{152} \ge 0$$

$$x_{57} + x_{153} + x_{305} - 2d_{153} \ge 0$$

$$x_{57} - d_{153} \ge 0$$

$$x_{57} - d_{153} \ge 0$$

$$x_{153} - d_{153} \ge 0$$

$$x_{153} - d_{153} \ge 0$$

$$x_{58} + x_{154} + x_{306} - 2d_{154} \ge 0$$

$$x_{306} - d_{154} \ge 0$$

$$x_{306} - d_{154} \ge 0$$

$$x_{58} - d_{154} \ge 0$$

$$x_{154} - d_{154} \ge 0$$

$$x_{59} - d_{155} \ge 0$$

$$x_{59} - d_{155} \ge 0$$

$$x_{60} + x_{155} + x_{307} - 2d_{155} \ge 0$$

$$x_{155} - d_{155} \ge 0$$

$$x_{156} - d_{155} \ge 0$$

$$x_{156} - d_{156} \ge 0$$

$$x_{156} - d_{156} \ge 0$$

$$x_{156} - d_{156} \ge 0$$

$$x_{157} - d_{157} \ge 0$$

$$x_{61} + x_{157} + x_{313} - 2d_{157} \ge 0$$

$$x_{61} + d_{157} \ge 0$$

$$x_{61} + d_{157} \ge 0$$

$$x_{61} + d_{158} \ge 0$$

$$x_{157} - d_{157} \ge 0$$

$$x_{62} + x_{158} + x_{314} - 2d_{158} \ge 0$$

$$x_{157} - d_{157} \ge 0$$

$$x_{157} - d_{157} \ge 0$$

$$x_{157} - d_{157} \ge 0$$

$$x_{158} - d_{158} \ge 0$$

$$x_{158} - d_{158} \ge 0$$

$$x_{159} - d_{159} \ge 0$$

$$x_{315} - d_{159} \ge 0$$

$$x_{315} - d_{159} \ge 0$$

$$x_{320} + x_{352} - 2d_{160} + 1k_{64} \ge 0$$

$$x_{320} - d_{160} \ge 0$$

$$-d_{160} + 1k_{64} \ge 0$$

$$x_{321} - d_{161} \ge 0$$

$$x_{321} - d_{161} \ge 0$$

$$-d_{161} + 1k_{65} \ge 0$$

$$x_{321} - d_{161} \ge 0$$

$$-d_{161} + 1k_{65} \ge 0$$

$$x_{333} - d_{161} \ge 0$$

$$\begin{array}{c} x_{322} + x_{354} - 2d_{162} + 1k_{66} & \geq 0 \\ x_{322} - d_{162} & \geq 0 \\ -d_{162} + 1k_{66} & \geq 0 \\ x_{354} - d_{162} & \geq 0 \\ x_{323} + x_{355} - 2d_{163} + 1k_{67} & \geq 0 \\ x_{323} - d_{163} & \geq 0 \\ -d_{163} + 1k_{67} & \geq 0 \\ x_{355} - d_{163} & \geq 0 \\ x_{324} + x_{356} - 2d_{164} + 1k_{68} & \geq 0 \\ x_{324} - d_{164} & \geq 0 \\ -d_{164} + 1k_{68} & \geq 0 \\ x_{325} - d_{165} & \geq 0 \\ -d_{164} + 1k_{69} & \geq 0 \\ x_{325} - d_{165} & \geq 0 \\ -d_{165} + 1k_{69} & \geq 0 \\ x_{325} - d_{165} & \geq 0 \\ -d_{165} + 1k_{69} & \geq 0 \\ x_{326} - d_{165} & \geq 0 \\ -d_{166} + 1k_{70} & \geq 0 \\ x_{326} - d_{166} & \geq 0 \\ -d_{166} + 1k_{70} & \geq 0 \\ x_{327} - d_{165} & \geq 0 \\ x_{327} - d_{165} & \geq 0 \\ x_{327} - d_{167} & \geq 0 \\ x_{328} - d_{166} & \geq 0 \\ x_{327} - d_{167} & \geq 0 \\ x_{328} - d_{167} & \geq 0 \\ x_{328} - d_{167} & \geq 0 \\ x_{328} - d_{168} & \geq 0 \\ -d_{167} + 1k_{71} & \geq 0 \\ x_{328} - d_{168} & \geq 0 \\ -d_{168} + 1k_{72} & \geq 0 \\ x_{329} - d_{169} & \geq 0 \\ x_{329} - d_{169} & \geq 0 \\ -d_{169} + 1k_{73} & \geq 0 \\ x_{330} - d_{170} & \geq 0 \\ x_{330} - d_{170} & \geq 0 \\ -d_{170} + 1k_{74} & \geq 0 \\ x_{331} - d_{171} & \geq 0 \\ -d_{171} + 1k_{75} & \geq 0 \\ x_{332} - d_{172} & \geq 0 \\ -d_{171} + 1k_{75} & \geq 0 \\ x_{332} - d_{172} & \geq 0 \\ -d_{172} + 1k_{76} & \geq 0 \\ -d_{172$$

$$x_{364} - d_{172} \ge 0$$

$$x_{333} + x_{365} - 2d_{173} + 1k_{77} \ge 0$$

$$x_{333} - d_{173} \ge 0$$

$$-d_{173} + 1k_{77} \ge 0$$

$$x_{365} - d_{173} \ge 0$$

$$x_{365} - d_{173} \ge 0$$

$$x_{334} + x_{366} - 2d_{174} + 1k_{78} \ge 0$$

$$x_{366} - d_{174} \ge 0$$

$$-d_{174} + 1k_{78} \ge 0$$

$$x_{366} - d_{174} \ge 0$$

$$x_{366} - d_{174} \ge 0$$

$$x_{366} - d_{174} \ge 0$$

$$x_{335} + x_{367} - 2d_{175} + 1k_{79} \ge 0$$

$$x_{367} - d_{175} \ge 0$$

$$-d_{175} + 1k_{79} \ge 0$$

$$x_{367} - d_{175} \ge 0$$

$$x_{367} - d_{175} \ge 0$$

$$x_{368} - d_{176} \ge 0$$

$$x_{369} - d_{177} \ge 0$$

$$-d_{177} + 1k_{81} \ge 0$$

$$x_{369} - d_{177} \ge 0$$

$$x_{338} + x_{370} - 2d_{178} + 1k_{82} \ge 0$$

$$x_{369} - d_{177} \ge 0$$

$$x_{338} + x_{370} - 2d_{178} + 1k_{82} \ge 0$$

$$x_{370} - d_{178} \ge 0$$

$$x_{339} - d_{179} \ge 0$$

$$-d_{179} + 1k_{83} \ge 0$$

$$x_{371} - d_{179} \ge 0$$

$$x_{340} + x_{372} - 2d_{180} + 1k_{84} \ge 0$$

$$x_{371} - d_{179} \ge 0$$

$$x_{340} + x_{372} - 2d_{180} + 1k_{84} \ge 0$$

$$x_{372} - d_{180} \ge 0$$

$$-d_{180} + 1k_{84} \ge 0$$

$$x_{374} - d_{180} \ge 0$$

$$x_{341} + x_{373} - 2d_{181} + 1k_{85} \ge 0$$

$$x_{342} - d_{181} \ge 0$$

$$x_{342} - d_{181} \ge 0$$

$$x_{342} - d_{182} \ge 0$$

$$-d_{182} + 1k_{86} \ge 0$$

$$x_{374} - d_{182} \ge 0$$

$$-d_{182} + 1k_{86} \ge 0$$

$$x_{343} - d_{182} \ge 0$$

$$x_{343} - d_{183} \ge 0$$

$$-d_{183} + 1k_{87} \ge 0$$

$$x_{375} - d_{183} \ge 0$$

$$x_{344} + x_{376} - 2d_{184} + 1k_{88} \ge 0$$

$$x_{344} - d_{184} \ge 0$$

$$-d_{184} + 1k_{88} \ge 0$$

$$x_{376} - d_{184} \ge 0$$

$$x_{345} - d_{185} \ge 0$$

$$x_{345} - d_{185} \ge 0$$

$$x_{345} - d_{185} \ge 0$$

$$x_{347} - d_{185} \ge 0$$

$$x_{377} - d_{185} \ge 0$$

$$x_{377} - d_{185} \ge 0$$

$$x_{346} + x_{378} = 2d_{186} + 1k_{90} \ge 0$$

$$x_{346} - d_{186} \ge 0$$

$$-d_{186} + 1k_{90} \ge 0$$

$$x_{378} - d_{186} \ge 0$$

$$-d_{187} + 1k_{91} \ge 0$$

$$x_{347} - d_{187} \ge 0$$

$$x_{348} + x_{380} - 2d_{188} + 1k_{92} \ge 0$$

$$x_{348} - d_{188} \ge 0$$

$$x_{348} - d_{188} \ge 0$$

$$x_{349} + x_{381} - 2d_{189} + 1k_{93} \ge 0$$

$$x_{349} + x_{381} - 2d_{189} + 1k_{93} \ge 0$$

$$x_{350} - d_{190} \ge 0$$

$$-d_{190} + 1k_{94} \ge 0$$

$$x_{351} - d_{190} \ge 0$$

$$x_{351} - d_{190} \ge 0$$

$$x_{351} - d_{190} \ge 0$$

$$x_{352} - d_{248} \ge 0$$

$$x_{353} - d_{248} \ge 0$$

$$x_{354} - d_{248} \ge 0$$

$$x_{355} - d_{248} \ge 0$$

$$x_{355} - d_{248} \ge 0$$

$$x_{355} - d_{248} \ge 0$$

$$x_{356} - d_{249} \ge 0$$

$$x_{356} - d_{249} \ge 0$$

$$x_{357} - d_{249} \ge 0$$

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x_{358} - d_{249} \ge 0
                                                                     x_{359} - d_{249} \ge 0
                                     -x_{356} - x_{357} - x_{358} - x_{359} + d_{249} \ge 0
  4x_{356} + 4x_{357} + 4x_{358} + 4x_{359} - x_{388} - x_{389} - x_{390} - x_{391} \ge 0
-x_{356} - x_{357} - x_{358} - x_{359} + 4x_{388} + 4x_{389} + 4x_{390} + 4x_{391} \ge 0
                                                                     x_{360} - d_{250} \ge 0
                                                                     x_{361} - d_{250} \ge 0
                                                                     x_{362} - d_{250} \ge 0
                                                                     x_{363} - d_{250} \ge 0
                                     -x_{360} - x_{361} - x_{362} - x_{363} + d_{250} \ge 0
  4x_{360} + 4x_{361} + 4x_{362} + 4x_{363} - x_{392} - x_{393} - x_{394} - x_{395} \ge 0
-x_{360} - x_{361} - x_{362} - x_{363} + 4x_{392} + 4x_{393} + 4x_{394} + 4x_{395} \ge 0
                                                                     x_{364} - d_{251} \ge 0
                                                                     x_{365} - d_{251} \ge 0
                                                                     x_{366} - d_{251} \ge 0
                                                                     x_{367} - d_{251} \ge 0
                                     -x_{364} - x_{365} - x_{366} - x_{367} + d_{251} \ge 0
  4x_{364} + 4x_{365} + 4x_{366} + 4x_{367} - x_{396} - x_{397} - x_{398} - x_{399} \ge 0
-x_{364} - x_{365} - x_{366} - x_{367} + 4x_{396} + 4x_{397} + 4x_{398} + 4x_{399} \ge 0
                                                                     x_{368} - d_{252} \ge 0
                                                                     x_{369} - d_{252} \ge 0
                                                                     x_{370} - d_{252} \ge 0
                                                                     x_{371} - d_{252} \ge 0
                                     -x_{368} - x_{369} - x_{370} - x_{371} + d_{252} \ge 0
  4x_{368} + 4x_{369} + 4x_{370} + 4x_{371} - x_{400} - x_{401} - x_{402} - x_{403} \ge 0
-x_{368} - x_{369} - x_{370} - x_{371} + 4x_{400} + 4x_{401} + 4x_{402} + 4x_{403} \ge 0
                                                                     x_{372} - d_{253} \ge 0
                                                                     x_{373} - d_{253} \ge 0
                                                                     x_{374} - d_{253} \ge 0
                                                                     x_{375} - d_{253} \ge 0
                                     -x_{372} - x_{373} - x_{374} - x_{375} + d_{253} \ge 0
  4x_{372} + 4x_{373} + 4x_{374} + 4x_{375} - x_{404} - x_{405} - x_{406} - x_{407} \ge 0
-x_{372} - x_{373} - x_{374} - x_{375} + 4x_{404} + 4x_{405} + 4x_{406} + 4x_{407} \ge 0
                                                                     x_{376} - d_{254} \ge 0
                                                                     x_{377} - d_{254} \ge 0
                                                                     x_{378} - d_{254} \ge 0
                                                                     x_{379} - d_{254} \ge 0
                                     -x_{376} - x_{377} - x_{378} - x_{379} + d_{254} \ge 0
  4x_{376} + 4x_{377} + 4x_{378} + 4x_{379} - x_{408} - x_{409} - x_{410} - x_{411} \ge 0
-x_{376} - x_{377} - x_{378} - x_{379} + 4x_{408} + 4x_{409} + 4x_{410} + 4x_{411} \ge 0
                                                                     x_{380} - d_{255} \ge 0
                                                                     x_{381} - d_{255} \ge 0
                                                                     x_{382} - d_{255} \ge 0
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$$x_{383} - d_{255} \geq 0$$

$$-x_{380} - x_{381} - x_{382} - x_{383} + d_{255} \geq 0$$

$$4x_{380} + 4x_{381} + 4x_{382} + 4x_{383} - x_{412} - x_{413} - x_{414} - x_{415} \geq 0$$

$$-x_{380} - x_{381} - x_{382} - x_{383} + 4x_{412} + 4x_{413} + 4x_{414} + 4x_{415} \geq 0$$

$$x_{32} + x_{128} + x_{388} - 2d_{192} \geq 0$$

$$x_{328} - d_{192} \geq 0$$

$$x_{128} - d_{192} \geq 0$$

$$x_{128} - d_{192} \geq 0$$

$$x_{129} - d_{193} \geq 0$$

$$x_{129} - d_{193} \geq 0$$

$$x_{130} - d_{194} \geq 0$$

$$x_{34} + x_{130} + x_{390} - 2d_{194} \geq 0$$

$$x_{34} - d_{194} \geq 0$$

$$x_{35} - d_{195} \geq 0$$

$$x_{35} - d_{195} \geq 0$$

$$x_{35} - d_{195} \geq 0$$

$$x_{36} + x_{131} + x_{391} - 2d_{195} \geq 0$$

$$x_{36} - d_{196} \geq 0$$

$$x_{36} - d_{196} \geq 0$$

$$x_{37} - d_{197} \geq 0$$

$$x_{38} - d_{198} \geq 0$$

$$x_{39} - d_{199} \geq 0$$

$$x_{313} - d_{200} \geq 0$$

$$x_{314} + x_{135} + x_{386} - 2d_{200} \geq 0$$

$$x_{384} - d_{200} \geq 0$$

$$x_{116} - d_{200} \geq 0$$

$$x$$

$$\begin{array}{c} x_{137} - d_{201} \geq 0 \\ x_{42} + x_{138} + x_{386} - 2d_{202} \geq 0 \\ x_{386} - d_{202} \geq 0 \\ x_{42} - d_{202} \geq 0 \\ x_{138} - d_{202} \geq 0 \\ x_{43} + x_{139} + x_{387} - 2d_{203} \geq 0 \\ x_{43} - d_{203} \geq 0 \\ x_{43} - d_{203} \geq 0 \\ x_{43} - d_{203} \geq 0 \\ x_{139} - d_{203} \geq 0 \\ x_{44} + x_{140} + x_{392} - 2d_{204} \geq 0 \\ x_{392} - d_{204} \geq 0 \\ x_{44} - d_{204} \geq 0 \\ x_{44} - d_{204} \geq 0 \\ x_{44} - d_{204} \geq 0 \\ x_{45} + x_{141} + x_{393} - 2d_{205} \geq 0 \\ x_{393} - d_{205} \geq 0 \\ x_{45} - d_{205} \geq 0 \\ x_{45} - d_{205} \geq 0 \\ x_{46} + x_{142} + x_{394} - 2d_{206} \geq 0 \\ x_{46} - d_{206} \geq 0 \\ x_{47} - d_{206} \geq 0 \\ x_{47} - d_{206} \geq 0 \\ x_{47} - d_{207} \geq 0 \\ x_{48} + x_{144} + x_{404} - 2d_{208} \geq 0 \\ x_{47} - d_{207} \geq 0 \\ x_{48} - d_{208} \geq 0 \\ x_{49} - d_{209} \geq 0 \\ x_{49} - d_{209} \geq 0 \\ x_{49} - d_{209} \geq 0 \\ x_{405} - d_{209} \geq 0 \\ x_{406} - d_{210} \geq 0 \\ x_{50} - d_{210} \geq 0 \\ x_{50} - d_{210} \geq 0 \\ x_{50} - d_{211} \geq 0 \\ x_{51} - d_{211} \geq 0 \\ x_{51} - d_{211} \geq 0 \\ x_{51} - d_{211} \geq 0 \\ x_{417} - d_{212} \geq 0 \\ x_{412} - d_{212} \geq 0 \\$$

$$x_{148} - d_{212} \ge 0$$

$$x_{148} - d_{212} \ge 0$$

$$x_{53} + x_{149} + x_{413} - 2d_{213} \ge 0$$

$$x_{53} - d_{213} \ge 0$$

$$x_{149} - d_{213} \ge 0$$

$$x_{149} - d_{213} \ge 0$$

$$x_{144} - d_{214} \ge 0$$

$$x_{150} - d_{214} \ge 0$$

$$x_{151} - d_{215} \ge 0$$

$$x_{152} - d_{216} \ge 0$$

$$x_{153} - d_{217} \ge 0$$

$$x_{154} - d_{218} \ge 0$$

$$x_{154} - d_{218} \ge 0$$

$$x_{154} - d_{218} \ge 0$$

$$x_{155} - d_{219} \ge 0$$

$$x_{160} + x_{156} + x_{408} - 2d_{220} \ge 0$$

$$x_{408} - d_{220} \ge 0$$

$$x_{409} - d_{221} \ge 0$$

$$x_{410} - d_{222} \ge 0$$

$$x_{411} - d_{223} \ge 0$$

$$x_{63} - d_{223} \ge 0$$

$$x_{159} - d_{223} \ge 0$$

$$x_{164} + d_{225} + d_{226} + d_{227} + d_{228} + d_{229} + d_{230} + d_{231} - 1k_{96} \ge 0$$

$$x_{66} + x_{67} \ge 0$$

$$x_{65} + x_{66} \ge 0$$

$$x_{96} + x_{97} \ge 0$$

$$x_{65} + x_{96} + x_{97} - 1k_{96} \ge 0$$

$$x_{67} - 1k_{96} \ge 0$$

$$x_{97} + x_{98} \ge 0$$

$$x_{97} + x_{98} \ge 0$$

$$x_{99} - 1k_{96} \ge 0$$

$$x_{99} - 1k_{96} \ge 0$$

$$x_{99} - 1k_{96} \ge 0$$

$$x_{65} + x_{67} + x_{96} - 1k_{96} \ge 0$$

$$x_{69} + x_{70} \ge 0$$

$$x_{100} \ge 0$$

$$x_{100} \ge 0$$

$$x_{101} + x_{102} \ge 0$$

$$x_{101} + x_{102} \ge 0$$

$$x_{102} + x_{103} \ge 0$$

$$x_{103} - 1k_{96} \ge 0$$

$$x_{100} + x_{101} \ge 0$$

$$x_{100} +$$

 $x_{78} + x_{79} \ge 0$

$$x_{109} + x_{110} \ge 0$$

$$x_{16} + x_{77} \ge 0$$

$$x_{76} + x_{77} \ge 0$$

$$x_{79} + x_{108} + x_{109} - 1k_{96} \ge 0$$

$$x_{110} + x_{111} \ge 0$$

$$x_{111} - 1k_{96} \ge 0$$

$$x_{108} \ge 0$$

$$x_{76} \ge 0$$

$$x_{76} \ge 0$$

$$x_{77} + x_{79} + x_{109} - 1k_{96} \ge 0$$

$$x_{115} - 1k_{96} \ge 0$$

$$x_{113} + x_{114} \ge 0$$

$$x_{82} + x_{83} \ge 0$$

$$x_{112} + x_{113} \ge 0$$

$$x_{81} + x_{82} \ge 0$$

$$x_{81} + x_{83} + x_{112} + x_{113} \ge 0$$

$$x_{80} + x_{81} \ge 0$$

$$x_{80} + x_{81} \ge 0$$

$$x_{81} + x_{112} + x_{114} - 1k_{96} \ge 0$$

$$x_{114} + x_{115} \ge 0$$

$$x_{80} \ge 0$$

$$x_{112} \ge 0$$

$$x_{114} + x_{115} \ge 0$$

$$x_{80} \ge 0$$

$$x_{117} + x_{118} \ge 0$$

$$x_{116} + x_{117} \ge 0$$

$$x_{86} + x_{87} \ge 0$$

$$x_{116} + x_{117} \ge 0$$

$$x_{85} + x_{86} \ge 0$$

$$x_{116} + x_{117} \ge 0$$

$$x_{85} + x_{86} \ge 0$$

$$x_{118} + x_{119} \ge 0$$

$$x_{84} \ge 0$$

$$x_{118} + x_{119} \ge 0$$

$$x_{118} + x_{119} \ge 0$$

$$x_{116} \ge 0$$

$$x_{116} \ge 0$$

$$x_{117} + x_{118} \ge 0$$

$$x_{117} + x_{118} \ge 0$$

$$x_{118} + x_{119} \ge 0$$

$$x_{118} + x_{119} \ge 0$$

$$x_{118} + x_{119} \ge 0$$

$$x_{116} \ge 0$$

$$x_{118} + x_{119} \ge 0$$

$$x_{116} \ge 0$$

$$x_{117} + x_{118} \ge 0$$

$$x_{118} + x_{119} \ge 0$$

$$x_{119} + x_{119} \ge 0$$

 $x_{122} + x_{123} \ge 0$

$$x_{123} - 1k_{96} \ge 0$$

$$x_{120} + x_{121} \ge 0$$

$$x_{88} \ge 0$$

$$x_{89} + x_{91} + x_{120} + x_{121} - 1k_{96} \ge 0$$

$$x_{94} + x_{95} \ge 0$$

$$x_{93} + x_{94} \ge 0$$

$$x_{124} \ge 0$$

$$x_{124} \ge 0$$

$$x_{125} + x_{126} \ge 0$$

$$x_{92} + x_{93} \ge 0$$

$$x_{125} + x_{126} \ge 0$$

$$x_{126} + x_{127} \ge 0$$

$$x_{127} - 1k_{96} \ge 0$$

$$x_{124} + x_{125} \ge 0$$

$$x_{127} - 1k_{96} \ge 0$$

$$x_{124} + x_{125} \ge 0$$

$$x_{127} + 1k_{96} \ge 0$$

$$x_{124} + x_{125} \ge 0$$

$$x_{126} + x_{163} \ge 0$$

$$x_{161} + x_{162} \ge 0$$

$$x_{162} + x_{163} \ge 0$$

$$x_{161} + x_{162} \ge 0$$

$$x_{192} + x_{193} \ge 0$$

$$x_{161} + x_{192} + x_{193} - 1k_{96} \ge 0$$

$$x_{193} + x_{194} \ge 0$$

$$x_{163} - 1k_{96} \ge 0$$

$$x_{194} + x_{195} \ge 0$$

$$x_{195} - 1k_{96} \ge 0$$

$$x_{196} \ge 0$$

$$x_{166} \ge 0$$

$$x_{166} \ge 0$$

$$x_{166} \ge 0$$

$$x_{166} \ge 0$$

$$x_{167} - 1k_{96} \ge 0$$

$$x_{167} - 1k_{96} \ge 0$$

$$x_{197} + x_{198} \ge 0$$

$$x_{199} - 1k_{96} \ge 0$$

$$x_{199} - 1k_{96} \ge 0$$

$$x_{199} - 1k_{96} \ge 0$$

$$x_{196} + x_{197} \ge 0$$

$$x_{164} \ge 0$$

$$x_{164} \ge 0$$

$$x_{164} \ge 0$$

$$x_{165} + x_{167} + x_{196} + x_{197} - 1k_{96} \ge 0$$

$$x_{196} \ge 0$$

$$x_{196} \ge 0$$

$$x_{197} - 1k_{96} \ge 0$$

$$x_{198} + x_{199} \ge 0$$

$$x_{199} - 1k_{96} \ge 0$$

$$x_{196} \ge 0$$

$$x_{196} \ge 0$$

$$x_{197} - 1k_{96} \ge 0$$

$$x_{197} - 1k_{96} \ge 0$$

$$x_{198} + x_{197} \ge 0$$

$$x_{164} \ge 0$$

$$x_{164} \ge 0$$

$$x_{164} \ge 0$$

$$x_{167} - 1k_{96} \ge 0$$

$$x_{198} + x_{197} \ge 0$$

$$x_{168} \ge 0$$

$$x_{199} - 1k_{96} \ge 0$$

$$x_{199} - 1k_{199} \ge$$

$$x_{169} + x_{170} \ge 0$$

$$x_{169} + x_{171} + x_{200} \ge 0$$

$$x_{168} + x_{169} \ge 0$$

$$x_{168} + x_{169} \ge 0$$

$$x_{171} - 1k_{96} \ge 0$$

$$x_{169} + x_{200} + x_{201} + x_{202} - 1k_{96} \ge 0$$

$$x_{202} + x_{203} \ge 0$$

$$x_{168} \ge 0$$

$$x_{200} + x_{201} \ge 0$$

$$x_{169} + x_{171} + x_{200} + x_{201} - 1k_{96} \ge 0$$

$$x_{204} + x_{205} \ge 0$$

$$x_{174} + x_{175} \ge 0$$

$$x_{173} + x_{174} \ge 0$$

$$x_{205} + x_{206} \ge 0$$

$$x_{172} + x_{173} \ge 0$$

$$x_{175} + x_{204} + x_{205} - 1k_{96} \ge 0$$

$$x_{206} + x_{207} \ge 0$$

$$x_{207} - 1k_{96} \ge 0$$

$$x_{204} \ge 0$$

$$x_{172} \ge 0$$

$$x_{173} + x_{175} + x_{205} - 1k_{96} \ge 0$$

$$x_{204} \ge 0$$

$$x_{172} \ge 0$$

$$x_{173} + x_{175} + x_{205} - 1k_{96} \ge 0$$

$$x_{209} + x_{210} \ge 0$$

$$x_{177} + x_{179} \ge 0$$

$$x_{176} \ge 0$$

$$x_{208} \ge 0$$

$$x_{1177} + x_{179} + x_{208} - 1k_{96} \ge 0$$

$$x_{211} + x_{211} \ge 0$$

$$x_{180} + x_{181} \ge 0$$

$$x_{181} + x_{212} + x_{213} \ge 0$$

$$x_{181} + x_{212} + x_{214} - 1k_{96} \ge 0$$

$$x_{214} + x_{215} \ge 0$$

$$x_{180} \ge 0$$

$$x_{212} \ge 0$$

$$x_{1181} + x_{183} + x_{212} - 1k_{96} \ge 0$$

$$x_{186} + x_{187} \ge 0$$

$$x_{185} + x_{186} \ge 0$$

$$x_{216} \ge 0$$

$$x_{185} + x_{216} - 1k_{96} \ge 0$$

$$x_{184} + x_{185} \ge 0$$

$$x_{187} - 1k_{96} \ge 0$$

$$x_{218} + x_{219} \ge 0$$

$$x_{219} - 1k_{96} \ge 0$$

$$x_{216} + x_{217} \ge 0$$

$$x_{184} \ge 0$$

$$x_{185} + x_{187} + x_{216} + x_{217} - 1k_{96} \ge 0$$

$$x_{190} + x_{191} \ge 0$$

$$x_{189} + x_{190} \ge 0$$

$$x_{120} \ge 0$$

$$x_{189} + x_{220} - 1k_{96} \ge 0$$

$$x_{1189} + x_{190} \ge 0$$

$$x_{221} + x_{222} \ge 0$$

$$x_{191} - 1k_{96} \ge 0$$

$$x_{222} + x_{223} \ge 0$$

$$x_{223} - 1k_{96} \ge 0$$

$$x_{220} + x_{221} \ge 0$$

$$x_{220} + x_{221} \ge 0$$

$$x_{220} + x_{221} \ge 0$$

$$x_{221} + x_{222} \ge 0$$

$$x_{222} + x_{223} \ge 0$$

$$x_{222} + x_{223} \ge 0$$

$$x_{223} - 1k_{96} \ge 0$$

$$x_{256} + x_{257} \ge 0$$

$$x_{257} + x_{258} + x_{259} \ge 0$$

$$x_{256} + x_{257} \ge 0$$

$$x_{262} + x_{261} \ge 0$$

$$x_{261} + x_{262} \ge 0$$

$$x_{261} + x_{262} \ge 0$$

$$x_{292} \ge 0$$

$$\begin{array}{c} x_{261} + x_{292} - 1k_{96} \geq 0 \\ x_{260} + x_{261} \geq 0 \\ x_{293} + x_{294} \geq 0 \\ x_{263} - 1k_{96} \geq 0 \\ x_{294} + x_{295} \geq 0 \\ x_{295} - 1k_{96} \geq 0 \\ x_{292} + x_{293} \geq 0 \\ x_{260} \geq 0 \\ x_{260} \geq 0 \\ x_{261} + x_{263} + x_{292} + x_{293} - 1k_{96} \geq 0 \\ x_{297} + x_{298} \geq 0 \\ x_{266} + x_{267} \geq 0 \\ x_{296} \geq 0 \\ x_{266} + x_{267} \geq 0 \\ x_{266} + x_{267} \geq 0 \\ x_{266} + x_{266} \geq 0 \\ x_{265} + x_{266} \geq 0 \\ x_{265} + x_{266} \geq 0 \\ x_{267} - 1k_{96} \geq 0 \\ x_{267} - 1k_{96} \geq 0 \\ x_{268} + x_{299} \geq 0 \\ x_{268} + x_{299} \geq 0 \\ x_{264} \geq 0 \\ x_{298} + x_{299} \geq 0 \\ x_{264} \geq 0 \\ x_{296} + x_{297} \geq 0 \\ x_{266} + x_{267} + x_{296} + x_{297} - 1k_{96} \geq 0 \\ x_{266} + x_{267} \geq 0 \\ x_{268} + x_{269} \geq 0 \\ x_{269} + x_{271} + x_{300} + x_{301} - 1k_{96} \geq 0 \\ x_{300} \geq 0 \\ x_{268} \geq 0 \\ x_{274} + x_{275} \geq 0 \\ x_{304} + x_{305} \geq 0 \\ x_{274} + x_{275} \geq 0 \\ x_{273} + x_{274} \geq 0 \\ x_{273} + x_{274} \geq 0 \\ x_{275} - 1k_{96} \geq 0 \\ x_{275} - 1k_{96} \geq 0 \\ x_{277} + x_{307} \geq 0 \\ x_{276} + x_{307} \geq 0 \\ x_{277} + x_{273} \geq 0 \\ x_{277} + x_{274} \geq 0 \\ x_{277} + x_{274} \geq 0 \\ x_{277} + x_{276} \geq 0 \\ x_{277} + x_{277} \geq 0 \\ x_{277} + x_{277}$$

$$x_{272} \geq 0$$

$$x_{304} \geq 0$$

$$x_{273} + x_{275} + x_{304} - 1k_{96} \geq 0$$

$$x_{311} - 1k_{96} \geq 0$$

$$x_{309} + x_{310} \geq 0$$

$$x_{278} + x_{279} \geq 0$$

$$x_{308} + x_{309} \geq 0$$

$$x_{277} + x_{278} \geq 0$$

$$x_{277} + x_{278} \geq 0$$

$$x_{277} + x_{279} + x_{308} + x_{309} \geq 0$$

$$x_{276} + x_{277} \geq 0$$

$$x_{279} - 1k_{96} \geq 0$$

$$x_{210} + x_{311} \geq 0$$

$$x_{210} \geq 0$$

$$x_{310} + x_{311} \geq 0$$

$$x_{210} \geq 0$$

$$x_{310} + x_{311} \geq 0$$

$$x_{211} + x_{212} \geq 0$$

$$x_{212} \geq 0$$

$$x_{212} \geq 0$$

$$x_{212} \geq 0$$

$$x_{213} \geq 0$$

$$x_{213} + x_{212} = 1k_{96} \geq 0$$

$$x_{214} + x_{312} - 1k_{96} \geq 0$$

$$x_{214} + x_{313} = 1k_{96} \geq 0$$

$$x_{314} + x_{315} \geq 0$$

$$x_{315} - 1k_{96} \geq 0$$

$$x_{314} + x_{313} \geq 0$$

$$x_{212} + x_{313} \geq 0$$

$$x_{213} + x_{313} \geq 0$$

$$x_{214} + x_{313} = 1k_{96} \geq 0$$

$$x_{315} - 1k_{96} \geq 0$$

$$x_{316} + x_{316} \geq 0$$

$$x_{217} + x_{219} + x_{219} = 1$$

$$x_{219} + x_{219}$$

$$\begin{array}{c} x_{353} + x_{384} + x_{385} - 1k_{96} \geq 0 \\ x_{352} + x_{353} \geq 0 \\ x_{385} + x_{386} \geq 0 \\ x_{385} - 1k_{96} \geq 0 \\ x_{386} + x_{387} \geq 0 \\ x_{387} - 1k_{96} \geq 0 \\ x_{384} \geq 0 \\ x_{352} \geq 0 \\ x_{353} + x_{355} + x_{384} - 1k_{96} \geq 0 \\ x_{358} + x_{359} \geq 0 \\ x_{357} + x_{358} \geq 0 \\ x_{357} + x_{358} \geq 0 \\ x_{356} + x_{357} \geq 0 \\ x_{389} + x_{390} \geq 0 \\ x_{359} - 1k_{96} \geq 0 \\ x_{390} + x_{391} \geq 0 \\ x_{356} \geq 0 \\ x_{357} + x_{359} + x_{388} + x_{389} - 1k_{96} \geq 0 \\ x_{391} - 1k_{96} \geq 0 \\ x_{395} - 1k_{96} \geq 0 \\ x_{395} - 1k_{96} \geq 0 \\ x_{395} - 1k_{96} \geq 0 \\ x_{361} + x_{363} \geq 0 \\ x_{361} + x_{363} \geq 0 \\ x_{361} + x_{363} + x_{392} \geq 0 \\ x_{364} + x_{395} \geq 0 \\ x_{366} + x_{367} \geq 0 \\ x_{366} + x_{367} \geq 0 \\ x_{366} + x_{366} \geq 0 \\ x_{397} + x_{398} \geq 0 \\ x_{367} + x_{396} + x_{397} - 1k_{96} \geq 0 \\ x_{399} - 1k_{96} \geq 0 \\ x_{99} - 1k_{96} \geq 0 \\ x_{99} - 1k_{96} \geq 0 \\ x_{99} - 1k_{96} \geq 0$$

$$x_{364} \geq 0$$

$$x_{365} + x_{367} + x_{397} - 1k_{96} \geq 0$$

$$x_{401} - 1k_{96} \geq 0$$

$$x_{401} + x_{402} \geq 0$$

$$x_{370} + x_{371} \geq 0$$

$$x_{400} + x_{401} \geq 0$$

$$x_{369} + x_{370} \geq 0$$

$$x_{368} + x_{369} \geq 0$$

$$x_{368} + x_{369} \geq 0$$

$$x_{371} - 1k_{96} \geq 0$$

$$x_{368} + x_{400} = 1k_{96} \geq 0$$

$$x_{402} + x_{403} \geq 0$$

$$x_{400} \geq 0$$

$$x_{407} - 1k_{96} \geq 0$$

$$x_{407} - 1k_{96} \geq 0$$

$$x_{407} - 1k_{96} \geq 0$$

$$x_{407} + x_{406} \geq 0$$

$$x_{374} + x_{375} \geq 0$$

$$x_{404} + x_{405} \geq 0$$

$$x_{373} + x_{374} + x_{404} + x_{405} \geq 0$$

$$x_{377} + x_{373} \geq 0$$

$$x_{377} + x_{404} + x_{405} \geq 0$$

$$x_{377} + x_{404} + x_{405} \geq 0$$

$$x_{377} + x_{404} + x_{405} \geq 0$$

$$x_{377} + x_{406} \geq 0$$

$$x_{377} + x_{406} \geq 0$$

$$x_{377} + x_{407} \geq 0$$

$$x_{377} + x_{408} \geq 0$$

$$x_{404} \geq 0$$

$$x_{377} + x_{408} \geq 0$$

$$x_{408} \geq 0$$

$$x_{409} + x_{410} \geq 0$$

$$x_{410} + x_{411} \geq 0$$

$$x_{410} + x_{409} \geq 0$$

$$x_{410} + x_{410} \geq 0$$

$$x_{411} + x_{411} \geq 0$$

$$\begin{aligned} x_{381} + x_{412} - 1k_{96} &\geq 0 \\ x_{380} + x_{381} &\geq 0 \\ x_{413} + x_{414} &\geq 0 \\ x_{383} - 1k_{96} &\geq 0 \\ x_{414} + x_{415} &\geq 0 \\ x_{415} - 1k_{96} &\geq 0 \\ x_{412} + x_{413} &\geq 0 \\ x_{380} &\geq 0 \\ x_{381} + x_{383} + x_{412} + x_{413} - 1k_{96} &\geq 0 \end{aligned}$$