MPS 文件数学模型提取

完整版

MPS Extractor

2025 年 7 月 8 日

目录

1 模型概览

文件名: `ran4x64.mps`
模型名: name
变量总数: 512
约束总数: 324
优化方向: Minimize

2 目标函数

目标函数摘要:

$$\min \quad Z = \sum_i c_i Y_i + \sum_j d_j X_j \tag{1}$$

Y 变量: 256 个，系数范围 [65, 264]
X 变量: 256 个，系数范围 [1, 10]

完整目标函数:

$$\begin{aligned}
\min \quad Z = {} & 112Y_{254} + 251Y_0 + 144Y_1 && (2)\\
& + 116Y_2 + 260Y_3 + 167Y_4 && (3)\\
& + 130Y_5 + 187Y_6 + 251Y_7 && (4)\\
& + 142Y_8 + 180Y_9 + 139Y_{10} && (5)\\
& + 231Y_{11} + 190Y_{12} + 252Y_{13} && (6)\\
& + 89Y_{14} + 65Y_{15} + 260Y_{16} && (7)\\
& + 111Y_{17} + 247Y_{18} + 256Y_{19} && (8)\\
& + 252Y_{20} + 193Y_{21} + 256Y_{22} && (9)\\
& + 97Y_{23} + 234Y_{24} + 187Y_{25} && (10)\\
& + 232Y_{26} + 196Y_{27} + 202Y_{28} && (11)\\
& + 190Y_{29} + 90Y_{30} + 90Y_{31} && (12)\\
& + 94Y_{32} + 106Y_{33} + 235Y_{34} && (13)\\
& + 134Y_{35} + 147Y_{36} + 200Y_{37} && (14)\\
& + 169Y_{38} + 196Y_{39} + 235Y_{40} && (15)\\
& + 71Y_{41} + 186Y_{42} + 143Y_{43} && (16)\\
& + 124Y_{44} + 256Y_{45} + 123Y_{46} && (17)\\
& + 134Y_{47} + 232Y_{48} + 72Y_{49} && (18)\\
& + 87Y_{50} + 110Y_{51} + 250Y_{52} && (19)\\
& + 98Y_{53} + 83Y_{54} + 254Y_{55} && (20)\\
& + 101Y_{56} + 163Y_{57} + 130Y_{58} && (21)\\
& + 260Y_{59} + 106Y_{60} + 163Y_{61} && (22)\\
& + 169Y_{62} + 164Y_{63} + 253Y_{64} && (23)\\
& + 112Y_{65} + 234Y_{66} + 182Y_{67} && (24)\\
& + 194Y_{68} + 89Y_{69} + 100Y_{70} && (25)
\end{aligned}$$

$$+ 158Y_{71} + 201Y_{72} + 198Y_{73} \tag{26}$$

$$+ 255Y_{74} + 213Y_{75} + 100Y_{76} \tag{27}$$

$$+ 260Y_{77} + 250Y_{78} + 235Y_{79} \tag{28}$$

$$+ 139Y_{80} + 128Y_{81} + 248Y_{82} \tag{29}$$

$$+ 235Y_{83} + 157Y_{84} + 93Y_{85} \tag{30}$$

$$+ 263Y_{86} + 125Y_{87} + 206Y_{88} \tag{31}$$

$$+ 86Y_{89} + 207Y_{90} + 226Y_{91} \tag{32}$$

$$+ 254Y_{92} + 129Y_{93} + 177Y_{94} \tag{33}$$

$$+ 66Y_{95} + 80Y_{96} + 216Y_{97} \tag{34}$$

$$+ 192Y_{98} + 89Y_{99} + 66Y_{100} \tag{35}$$

$$+ 122Y_{101} + 129Y_{102} + 169Y_{103} \tag{36}$$

$$+ 209Y_{104} + 196Y_{105} + 252Y_{106} \tag{37}$$

$$+ 67Y_{107} + 177Y_{108} + 225Y_{109} \tag{38}$$

$$+ 160Y_{110} + 157Y_{111} + 161Y_{112} \tag{39}$$

$$+ 70Y_{113} + 111Y_{114} + 186Y_{115} \tag{40}$$

$$+ 262Y_{116} + 259Y_{117} + 93Y_{118} \tag{41}$$

$$+ 192Y_{119} + 218Y_{120} + 141Y_{121} \tag{42}$$

$$+ 127Y_{122} + 144Y_{123} + 215Y_{124} \tag{43}$$

$$+ 177Y_{125} + 241Y_{126} + 99Y_{127} \tag{44}$$

$$+ 144Y_{128} + 147Y_{129} + 220Y_{130} \tag{45}$$

$$+ 252Y_{131} + 254Y_{132} + 119Y_{133} \tag{46}$$

$$+ 187Y_{134} + 162Y_{135} + 149Y_{136} \tag{47}$$

$$+ 126Y_{137} + 158Y_{138} + 182Y_{139} \tag{48}$$

$$+ 248Y_{140} + 232Y_{141} + 115Y_{142} \tag{49}$$

$$+ 235Y_{143} + 104Y_{144} + 159Y_{145} \tag{50}$$

$$+ 217Y_{146} + 226Y_{147} + 68Y_{148} \tag{51}$$

$$+ 207Y_{149} + 88Y_{150} + 113Y_{151} \tag{52}$$

$$+ 264Y_{152} + 261Y_{153} + 172Y_{154} \tag{53}$$

$$+ 153Y_{155} + 128Y_{156} + 115Y_{157} \tag{54}$$

$$+ 177Y_{158} + 162Y_{159} + 174Y_{160} \tag{55}$$

$$+ 92Y_{161} + 230Y_{162} + 150Y_{163} \tag{56}$$

$$+ 122Y_{164} + 85Y_{165} + 188Y_{166} \tag{57}$$

$$+ 227Y_{167} + 244Y_{168} + 200Y_{169} \tag{58}$$

$$+ 259Y_{170} + 196Y_{171} + 176Y_{172} \tag{59}$$

$$+ 185Y_{173} + 180Y_{174} + 173Y_{175} \tag{60}$$

$$+ 71Y_{176} + 262Y_{177} + 177Y_{178} \tag{61}$$

$$+ 246Y_{179} + 106Y_{180} + 120Y_{181} \tag{62}$$

$$+ 136Y_{182} + 161Y_{183} + 165Y_{184} \tag{63}$$

$$+ 161Y_{185} + 132Y_{186} + 116Y_{187} \tag{64}$$

$$+ 236Y_{188} + 90Y_{189} + 129Y_{190} \tag{65}$$

$$+ 216Y_{191} + 105Y_{192} + 239Y_{193} \tag{66}$$

$$+ 191Y_{194} + 118Y_{195} + 109Y_{196} \tag{67}$$

$$+ 102Y_{197} + 218Y_{198} + 155Y_{199} \tag{68}$$

$$+ 158Y_{200} + 113Y_{201} + 145Y_{202} \tag{69}$$

$$+ 127Y_{203} + 91Y_{204} + 235Y_{205} \tag{70}$$

$$+ 101Y_{206} + 185Y_{207} + 103Y_{208} \tag{71}$$

$$+ 154Y_{209} + 236Y_{210} + 165Y_{211} \tag{72}$$

$$+ 68Y_{212} + 196Y_{213} + 92Y_{214} \tag{73}$$

$$+ 145Y_{215} + 73Y_{216} + 178Y_{217} \tag{74}$$

$$+ 224Y_{218} + 202Y_{219} + 150Y_{220} \tag{75}$$

$$+ 261Y_{221} + 89Y_{222} + 139Y_{223} \tag{76}$$

$$+ 191Y_{224} + 225Y_{225} + 155Y_{226} \tag{77}$$

$$+ 122Y_{227} + 226Y_{228} + 86Y_{229} \tag{78}$$

$$+ 89Y_{230} + 76Y_{231} + 134Y_{232} \tag{79}$$

$$+ 174Y_{233} + 256Y_{234} + 130Y_{235} \tag{80}$$

$$+ 253Y_{236} + 101Y_{237} + 79Y_{238} \tag{81}$$

$$+ 173Y_{239} + 102Y_{240} + 188Y_{241} \tag{82}$$

$$+ 192Y_{242} + 121Y_{243} + 122Y_{244} \tag{83}$$

$$+ 176Y_{245} + 166Y_{246} + 144Y_{247} \tag{84}$$

$$+ 200Y_{248} + 97Y_{249} + 252Y_{250} \tag{85}$$

$$+ 192Y_{251} + 176Y_{252} + 187Y_{253} \tag{86}$$

$$+ 160Y_{255} + 1X_0 + 1X_1 \tag{87}$$

$$+ 4X_2 + 4X_3 + 7X_4 \tag{88}$$

$$+ 5X_5 + 4X_6 + 1X_7 \tag{89}$$

$$+ 4X_8 + 7X_9 + 7X_{10} \tag{90}$$

$$+ 6X_{11} + 7X_{12} + 10X_{13} \tag{91}$$

$$+ 10X_{14} + 1X_{15} + 4X_{16} \tag{92}$$

$$+ 6X_{17} + 5X_{18} + 8X_{19} \tag{93}$$

$$+ 1X_{20} + 9X_{21} + 8X_{22} \tag{94}$$

$$+ 8X_{23} + 4X_{24} + 3X_{25} \tag{95}$$

$$+ 7X_{26} + 2X_{27} + 7X_{28} \tag{96}$$

$$+ 7X_{29} + 2X_{30} + 2X_{31} \tag{97}$$

$$+ 5X_{32} + 5X_{33} + 5X_{34} \tag{98}$$

$$+ 9X_{35} + 10X_{36} + 5X_{37} \tag{99}$$

$$+ 9X_{38} + 9X_{39} + 5X_{40} \tag{100}$$

$$+ 6X_{41} + 2X_{42} + 2X_{43} \tag{101}$$

$$+ 6X_{44} + 7X_{45} + 10X_{46} \tag{102}$$

$$+ 9X_{47} + 6X_{48} + 6X_{49} \tag{103}$$

$$+ 8X_{50} + 6X_{51} + 3X_{52} \tag{104}$$

$$+ 6X_{53} + 4X_{54} + 8X_{55} \tag{105}$$

$$+ 8X_{56} + 7X_{57} + 5X_{58} \tag{106}$$

$$+ 5X_{59} + 5X_{60} + 7X_{61} \tag{107}$$

$$+ 10X_{62} + 6X_{63} + 10X_{64} \tag{108}$$

$$+ 10X_{65} + 4X_{66} + 10X_{67} \tag{109}$$

$$+ 10X_{68} + 10X_{69} + 10X_{70} \tag{110}$$

$$+ 1X_{71} + 4X_{72} + 1X_{73} \tag{111}$$

$$+ 8X_{74} + 4X_{75} + 10X_{76} \tag{112}$$

$$+ 4X_{77} + 3X_{78} + 3X_{79} \tag{113}$$

$$+ 7X_{80} + 3X_{81} + 3X_{82} \tag{114}$$

$$+ 3X_{83} + 2X_{84} + 2X_{85} \tag{115}$$

$$+ 2X_{86} + 7X_{87} + 9X_{88} \tag{116}$$

$$+ 7X_{89} + 9X_{90} + 2X_{91} \tag{117}$$

$$+ 9X_{92} + 5X_{93} + 5X_{94} \tag{118}$$

$$+ 1X_{95} + 2X_{96} + 9X_{97} \tag{119}$$

$$+ 6X_{98} + 9X_{99} + 2X_{100} \tag{120}$$

$$+ 9X_{101} + 5X_{102} + 9X_{103} \tag{121}$$

$$+ 3X_{104} + 9X_{105} + 1X_{106} \tag{122}$$

$$+ 2X_{107} + 5X_{108} + 1X_{109} \tag{123}$$

$$+ 9X_{110} + 2X_{111} + 8X_{112} \tag{124}$$

$$+ 5X_{113} + 6X_{114} + 2X_{115} \tag{125}$$

$$+ 2X_{116} + 5X_{117} + 5X_{118} \tag{126}$$

$$+ 6X_{119} + 10X_{120} + 5X_{121} \tag{127}$$

$$+ 7X_{122} + 2X_{123} + 9X_{124} \tag{128}$$

$$+ 6X_{125} + 10X_{126} + 6X_{127} \tag{129}$$

$$+ 1X_{128} + 10X_{129} + 7X_{130} \tag{130}$$

$$+ 1X_{131} + 9X_{132} + 2X_{133} \tag{131}$$

$$+ 4X_{134} + 7X_{135} + 9X_{136} \tag{132}$$

$$+ 7X_{137} + 1X_{138} + 10X_{139} \tag{133}$$

$$+ 4X_{140} + 8X_{141} + 3X_{142} \tag{134}$$

$$+ 3X_{143} + 2X_{144} + 10X_{145} \tag{135}$$

$$+ 10X_{146} + 2X_{147} + 3X_{148} \tag{136}$$

$$+ 9X_{149} + 10X_{150} + 9X_{151} \tag{137}$$

$$+ 1X_{152} + 3X_{153} + 2X_{154} \tag{138}$$

$$+ 4X_{155} + 3X_{156} + 3X_{157} \tag{139}$$

$$+ 6X_{158} + 7X_{159} + 3X_{160} \tag{140}$$

$$+ 1X_{161} + 10X_{162} + 7X_{163} \tag{141}$$

$$+ 9X_{164} + 6X_{165} + 5X_{166} \tag{142}$$

$$+ 9X_{167} + 6X_{168} + 5X_{169} \tag{143}$$
$$+ 5X_{170} + 2X_{171} + 5X_{172} \tag{144}$$
$$+ 1X_{173} + 7X_{174} + 2X_{175} \tag{145}$$
$$+ 6X_{176} + 3X_{177} + 5X_{178} \tag{146}$$
$$+ 5X_{179} + 5X_{180} + 3X_{181} \tag{147}$$
$$+ 7X_{182} + 8X_{183} + 6X_{184} \tag{148}$$
$$+ 8X_{185} + 3X_{186} + 4X_{187} \tag{149}$$
$$+ 5X_{188} + 2X_{189} + 5X_{190} \tag{150}$$
$$+ 10X_{191} + 1X_{192} + 2X_{193} \tag{151}$$
$$+ 8X_{194} + 1X_{195} + 7X_{196} \tag{152}$$
$$+ 2X_{197} + 6X_{198} + 3X_{199} \tag{153}$$
$$+ 10X_{200} + 9X_{201} + 1X_{202} \tag{154}$$
$$+ 8X_{203} + 3X_{204} + 3X_{205} \tag{155}$$
$$+ 8X_{206} + 3X_{207} + 3X_{208} \tag{156}$$
$$+ 4X_{209} + 5X_{210} + 6X_{211} \tag{157}$$
$$+ 3X_{212} + 2X_{213} + 2X_{214} \tag{158}$$
$$+ 1X_{215} + 8X_{216} + 6X_{217} \tag{159}$$
$$+ 5X_{218} + 8X_{219} + 8X_{220} \tag{160}$$
$$+ 4X_{221} + 9X_{222} + 7X_{223} \tag{161}$$
$$+ 6X_{224} + 1X_{225} + 4X_{226} \tag{162}$$
$$+ 9X_{227} + 2X_{228} + 7X_{229} \tag{163}$$
$$+ 10X_{230} + 10X_{231} + 9X_{232} \tag{164}$$
$$+ 3X_{233} + 8X_{234} + 1X_{235} \tag{165}$$
$$+ 10X_{236} + 9X_{237} + 1X_{238} \tag{166}$$
$$+ 2X_{239} + 3X_{240} + 3X_{241} \tag{167}$$
$$+ 6X_{242} + 3X_{243} + 9X_{244} \tag{168}$$
$$+ 5X_{245} + 7X_{246} + 2X_{247} \tag{169}$$
$$+ 4X_{248} + 8X_{249} + 10X_{250} \tag{170}$$
$$+ 6X_{251} + 5X_{252} + 3X_{253} \tag{171}$$
$$+ 10X_{254} + 9X_{255}$$

3 约束条件

3.1 等式约束 (68 个)

$$X_{61} + X_{62} + X_{63} = +112 \quad \text{(C\_1)} \tag{172}$$
$$X_{120} + X_{121} + X_{122} + X_{123} + X_{124} + X_{125} \tag{173}$$
$$+ X_{126} + X_{127} = +109 \quad \text{(C\_2)} \tag{174}$$
$$X_{180} + X_{181} + X_{182} + X_{183} + X_{184} + X_{185} \tag{175}$$
$$+ X_{186} + X_{187} + X_{188} + X_{189} + X_{190} + X_{191} = +131 \quad \text{(C\_3)} \tag{176}$$

$$X_{244} + X_{245} + X_{246} + X_{247} + X_{248} + X_{249} \tag{177}$$

$$+ X_{250} + X_{251} + X_{252} + X_{253} + X_{254} + X_{255} \quad = +318 \qquad \text{(C\_4)} \tag{178}$$

$$X_0 + X_{64} + X_{128} + X_{192} = +6 \qquad \text{(B0)} \tag{179}$$

$$X_1 + X_{65} + X_{129} + X_{193} = +8 \qquad \text{(B1)} \tag{180}$$

$$X_2 + X_{66} + X_{130} + X_{194} = +8 \qquad \text{(B2)} \tag{181}$$

$$X_3 + X_{67} + X_{131} + X_{195} = +30 \qquad \text{(B3)} \tag{182}$$

$$X_4 + X_{68} + X_{132} + X_{196} = +14 \qquad \text{(B4)} \tag{183}$$

$$X_5 + X_{69} + X_{133} + X_{197} = +32 \qquad \text{(B5)} \tag{184}$$

$$X_6 + X_{70} + X_{134} + X_{198} = +2 \qquad \text{(B6)} \tag{185}$$

$$X_7 + X_{71} + X_{135} + X_{199} = +2 \qquad \text{(B7)} \tag{186}$$

$$X_8 + X_{72} + X_{136} + X_{200} = +7 \qquad \text{(B8)} \tag{187}$$

$$X_9 + X_{73} + X_{137} + X_{201} = +2 \qquad \text{(B9)} \tag{188}$$

$$X_{10} + X_{74} + X_{138} + X_{202} = +3 \qquad \text{(B10)} \tag{189}$$

$$X_{11} + X_{75} + X_{139} + X_{203} = +43 \qquad \text{(B11)} \tag{190}$$

$$X_{12} + X_{76} + X_{140} + X_{204} = +18 \qquad \text{(B12)} \tag{191}$$

$$X_{13} + X_{77} + X_{141} + X_{205} = +8 \qquad \text{(B13)} \tag{192}$$

$$X_{14} + X_{78} + X_{142} + X_{206} = +10 \qquad \text{(B14)} \tag{193}$$

$$X_{15} + X_{79} + X_{143} + X_{207} = +8 \qquad \text{(B15)} \tag{194}$$

$$X_{16} + X_{80} + X_{144} + X_{208} = +21 \qquad \text{(B16)} \tag{195}$$

$$X_{17} + X_{81} + X_{145} + X_{209} = +4 \qquad \text{(B17)} \tag{196}$$

$$X_{18} + X_{82} + X_{146} + X_{210} = +11 \qquad \text{(B18)} \tag{197}$$

$$X_{19} + X_{83} + X_{147} + X_{211} = +3 \qquad \text{(B19)} \tag{198}$$

$$X_{20} + X_{84} + X_{148} + X_{212} = +4 \qquad \text{(B20)} \tag{199}$$

$$X_{21} + X_{85} + X_{149} + X_{213} = +1 \qquad \text{(B21)} \tag{200}$$

$$X_{22} + X_{86} + X_{150} + X_{214} = +24 \qquad \text{(B22)} \tag{201}$$

$$X_{23} + X_{87} + X_{151} + X_{215} = +44 \qquad \text{(B23)} \tag{202}$$

$$X_{24} + X_{88} + X_{152} + X_{216} = +3 \qquad \text{(B24)} \tag{203}$$

$$X_{25} + X_{89} + X_{153} + X_{217} = +8 \qquad \text{(B25)} \tag{204}$$

$$X_{26} + X_{90} + X_{154} + X_{218} = +3 \qquad \text{(B26)} \tag{205}$$

$$X_{27} + X_{91} + X_{155} + X_{219} = +11 \qquad \text{(B27)} \tag{206}$$

$$X_{28} + X_{92} + X_{156} + X_{220} = +3 \qquad \text{(B28)} \tag{207}$$

$$X_{29} + X_{93} + X_{157} + X_{221} = +15 \qquad \text{(B29)} \tag{208}$$

$$X_{30} + X_{94} + X_{158} + X_{222} = +11 \qquad \text{(B30)} \tag{209}$$

$$X_{31} + X_{95} + X_{159} + X_{223} = +2 \qquad \text{(B31)} \tag{210}$$

$$X_{32} + X_{96} + X_{160} + X_{224} = +19 \qquad \text{(B32)} \tag{211}$$

$$X_{33} + X_{97} + X_{161} + X_{225} = +8 \qquad \text{(B33)} \tag{212}$$

$$X_{34} + X_{98} + X_{162} + X_{226} = +1 \qquad \text{(B34)} \tag{213}$$

$$X_{35} + X_{99} + X_{163} + X_{227} = +4 \qquad \text{(B35)} \tag{214}$$

$$X_{36} + X_{100} + X_{164} + X_{228} = +8 \qquad \text{(B36)} \tag{215}$$

$$X_{37} + X_{101} + X_{165} + X_{229} = +1 \qquad \text{(B37)} \tag{216}$$

$$X_{38} + X_{102} + X_{166} + X_{230} = +6 \qquad \text{(B38)} \tag{217}$$

$$X_{39} + X_{103} + X_{167} + X_{231} = +4 \qquad \text{(B39)} \tag{218}$$

$$X_{40} + X_{104} + X_{168} + X_{232} = +6 \quad \text{(B40)} \quad (219)$$
$$X_{41} + X_{105} + X_{169} + X_{233} = +2 \quad \text{(B41)} \quad (220)$$
$$X_{42} + X_{106} + X_{170} + X_{234} = +7 \quad \text{(B42)} \quad (221)$$
$$X_{43} + X_{107} + X_{171} + X_{235} = +3 \quad \text{(B43)} \quad (222)$$
$$X_{44} + X_{108} + X_{172} + X_{236} = +9 \quad \text{(B44)} \quad (223)$$
$$X_{45} + X_{109} + X_{173} + X_{237} = +22 \quad \text{(B45)} \quad (224)$$
$$X_{46} + X_{110} + X_{174} + X_{238} = +31 \quad \text{(B46)} \quad (225)$$
$$X_{47} + X_{111} + X_{175} + X_{239} = +2 \quad \text{(B47)} \quad (226)$$
$$X_{48} + X_{112} + X_{176} + X_{240} = +9 \quad \text{(B48)} \quad (227)$$
$$X_{49} + X_{113} + X_{177} + X_{241} = +12 \quad \text{(B49)} \quad (228)$$
$$X_{50} + X_{114} + X_{178} + X_{242} = +5 \quad \text{(B50)} \quad (229)$$
$$X_{51} + X_{115} + X_{179} + X_{243} = +4 \quad \text{(B51)} \quad (230)$$
$$X_{52} + X_{116} + X_{180} + X_{244} = +7 \quad \text{(B52)} \quad (231)$$
$$X_{53} + X_{117} + X_{181} + X_{245} = +11 \quad \text{(B53)} \quad (232)$$
$$X_{54} + X_{118} + X_{182} + X_{246} = +33 \quad \text{(B54)} \quad (233)$$
$$X_{55} + X_{119} + X_{183} + X_{247} = +17 \quad \text{(B55)} \quad (234)$$
$$X_{56} + X_{120} + X_{184} + X_{248} = +15 \quad \text{(B56)} \quad (235)$$
$$X_{57} + X_{121} + X_{185} + X_{249} = +3 \quad \text{(B57)} \quad (236)$$
$$X_{58} + X_{122} + X_{186} + X_{250} = +5 \quad \text{(B58)} \quad (237)$$
$$X_{59} + X_{123} + X_{187} + X_{251} = +4 \quad \text{(B59)} \quad (238)$$
$$X_{60} + X_{124} + X_{188} + X_{252} = +4 \quad \text{(B60)} \quad (239)$$
$$X_{61} + X_{125} + X_{189} + X_{253} = +17 \quad \text{(B61)} \quad (240)$$
$$X_{62} + X_{126} + X_{190} + X_{254} = +7 \quad \text{(B62)} \quad (241)$$
$$X_{63} + X_{127} + X_{191} + X_{255} = +15 \quad \text{(B63)} \quad (242)$$
(243)

3.2 不等式约束 (272 个)

$$X_0 - 6Y_0 \leq +0 \quad \text{(G0)} \quad (244)$$
$$X_1 - 8Y_1 \leq +0 \quad \text{(G1)} \quad (245)$$
$$X_2 - 8Y_2 \leq +0 \quad \text{(G2)} \quad (246)$$
$$X_3 - 30Y_3 \leq +0 \quad \text{(G3)} \quad (247)$$
$$X_4 - 14Y_4 \leq +0 \quad \text{(G4)} \quad (248)$$
$$X_5 - 32Y_5 \leq +0 \quad \text{(G5)} \quad (249)$$
$$X_6 - 2Y_6 \leq +0 \quad \text{(G6)} \quad (250)$$
$$X_7 - 2Y_7 \leq +0 \quad \text{(G7)} \quad (251)$$
$$X_8 - 7Y_8 \leq +0 \quad \text{(G8)} \quad (252)$$
$$X_9 - 2Y_9 \leq +0 \quad \text{(G9)} \quad (253)$$
$$X_{10} - 3Y_{10} \leq +0 \quad \text{(G10)} \quad (254)$$
$$X_{11} - 43Y_{11} \leq +0 \quad \text{(G11)} \quad (255)$$
$$X_{12} - 18Y_{12} \leq +0 \quad \text{(G12)} \quad (256)$$
$$X_{13} - 8Y_{13} \leq +0 \quad \text{(G13)} \quad (257)$$

$$X_{14} - 10Y_{14} \leq +0 \quad \text{(G14)} \quad (258)$$

$$X_{15} - 8Y_{15} \leq +0 \quad \text{(G15)} \quad (259)$$

$$X_{16} - 21Y_{16} \leq +0 \quad \text{(G16)} \quad (260)$$

$$X_{17} - 4Y_{17} \leq +0 \quad \text{(G17)} \quad (261)$$

$$X_{18} - 11Y_{18} \leq +0 \quad \text{(G18)} \quad (262)$$

$$X_{19} - 3Y_{19} \leq +0 \quad \text{(G19)} \quad (263)$$

$$X_{20} - 4Y_{20} \leq +0 \quad \text{(G20)} \quad (264)$$

$$X_{21} - Y_{21} \leq +0 \quad \text{(G21)} \quad (265)$$

$$X_{22} - 24Y_{22} \leq +0 \quad \text{(G22)} \quad (266)$$

$$X_{23} - 44Y_{23} \leq +0 \quad \text{(G23)} \quad (267)$$

$$X_{24} - 3Y_{24} \leq +0 \quad \text{(G24)} \quad (268)$$

$$X_{25} - 8Y_{25} \leq +0 \quad \text{(G25)} \quad (269)$$

$$X_{26} - 3Y_{26} \leq +0 \quad \text{(G26)} \quad (270)$$

$$X_{27} - 11Y_{27} \leq +0 \quad \text{(G27)} \quad (271)$$

$$X_{28} - 3Y_{28} \leq +0 \quad \text{(G28)} \quad (272)$$

$$X_{29} - 15Y_{29} \leq +0 \quad \text{(G29)} \quad (273)$$

$$X_{30} - 11Y_{30} \leq +0 \quad \text{(G30)} \quad (274)$$

$$X_{31} - 2Y_{31} \leq +0 \quad \text{(G31)} \quad (275)$$

$$X_{32} - 19Y_{32} \leq +0 \quad \text{(G32)} \quad (276)$$

$$X_{33} - 8Y_{33} \leq +0 \quad \text{(G33)} \quad (277)$$

$$X_{34} - Y_{34} \leq +0 \quad \text{(G34)} \quad (278)$$

$$X_{35} - 4Y_{35} \leq +0 \quad \text{(G35)} \quad (279)$$

$$X_{36} - 8Y_{36} \leq +0 \quad \text{(G36)} \quad (280)$$

$$X_{37} - Y_{37} \leq +0 \quad \text{(G37)} \quad (281)$$

$$X_{38} - 6Y_{38} \leq +0 \quad \text{(G38)} \quad (282)$$

$$X_{39} - 4Y_{39} \leq +0 \quad \text{(G39)} \quad (283)$$

$$X_{40} - 6Y_{40} \leq +0 \quad \text{(G40)} \quad (284)$$

$$X_{41} - 2Y_{41} \leq +0 \quad \text{(G41)} \quad (285)$$

$$X_{42} - 7Y_{42} \leq +0 \quad \text{(G42)} \quad (286)$$

$$X_{43} - 3Y_{43} \leq +0 \quad \text{(G43)} \quad (287)$$

$$X_{44} - 9Y_{44} \leq +0 \quad \text{(G44)} \quad (288)$$

$$X_{45} - 22Y_{45} \leq +0 \quad \text{(G45)} \quad (289)$$

$$X_{46} - 31Y_{46} \leq +0 \quad \text{(G46)} \quad (290)$$

$$X_{47} - 2Y_{47} \leq +0 \quad \text{(G47)} \quad (291)$$

$$X_{48} - 9Y_{48} \leq +0 \quad \text{(G48)} \quad (292)$$

$$X_{49} - 12Y_{49} \leq +0 \quad \text{(G49)} \quad (293)$$

$$X_{50} - 5Y_{50} \leq +0 \quad \text{(G50)} \quad (294)$$

$$X_{51} - 4Y_{51} \leq +0 \quad \text{(G51)} \quad (295)$$

$$X_{52} - 7Y_{52} \leq +0 \quad \text{(G52)} \quad (296)$$

$$X_{53} - 11Y_{53} \leq +0 \quad \text{(G53)} \quad (297)$$

$$X_{54} - 33Y_{54} \leq +0 \quad \text{(G54)} \quad (298)$$

$$X_{55} - 17Y_{55} \leq +0 \quad \text{(G55)} \quad (299)$$

$$X_{56} - 15Y_{56} \leq +0 \quad \text{(G56)} \quad (300)$$
$$X_{57} - 3Y_{57} \leq +0 \quad \text{(G57)} \quad (301)$$
$$X_{58} - 5Y_{58} \leq +0 \quad \text{(G58)} \quad (302)$$
$$X_{59} - 4Y_{59} \leq +0 \quad \text{(G59)} \quad (303)$$
$$X_{60} - 4Y_{60} \leq +0 \quad \text{(G60)} \quad (304)$$
$$X_{61} - 17Y_{61} \leq +0 \quad \text{(G61)} \quad (305)$$
$$X_{62} - 7Y_{62} \leq +0 \quad \text{(G62)} \quad (306)$$
$$X_{63} - 15Y_{63} \leq +0 \quad \text{(G63)} \quad (307)$$
$$X_{64} - 6Y_{64} \leq +0 \quad \text{(G64)} \quad (308)$$
$$X_{65} - 8Y_{65} \leq +0 \quad \text{(G65)} \quad (309)$$
$$X_{66} - 8Y_{66} \leq +0 \quad \text{(G66)} \quad (310)$$
$$X_{67} - 30Y_{67} \leq +0 \quad \text{(G67)} \quad (311)$$
$$X_{68} - 14Y_{68} \leq +0 \quad \text{(G68)} \quad (312)$$
$$X_{69} - 32Y_{69} \leq +0 \quad \text{(G69)} \quad (313)$$
$$X_{70} - 2Y_{70} \leq +0 \quad \text{(G70)} \quad (314)$$
$$X_{71} - 2Y_{71} \leq +0 \quad \text{(G71)} \quad (315)$$
$$X_{72} - 7Y_{72} \leq +0 \quad \text{(G72)} \quad (316)$$
$$X_{73} - 2Y_{73} \leq +0 \quad \text{(G73)} \quad (317)$$
$$X_{74} - 3Y_{74} \leq +0 \quad \text{(G74)} \quad (318)$$
$$X_{75} - 43Y_{75} \leq +0 \quad \text{(G75)} \quad (319)$$
$$X_{76} - 18Y_{76} \leq +0 \quad \text{(G76)} \quad (320)$$
$$X_{77} - 8Y_{77} \leq +0 \quad \text{(G77)} \quad (321)$$
$$X_{78} - 10Y_{78} \leq +0 \quad \text{(G78)} \quad (322)$$
$$X_{79} - 8Y_{79} \leq +0 \quad \text{(G79)} \quad (323)$$
$$X_{80} - 21Y_{80} \leq +0 \quad \text{(G80)} \quad (324)$$
$$X_{81} - 4Y_{81} \leq +0 \quad \text{(G81)} \quad (325)$$
$$X_{82} - 11Y_{82} \leq +0 \quad \text{(G82)} \quad (326)$$
$$X_{83} - 3Y_{83} \leq +0 \quad \text{(G83)} \quad (327)$$
$$X_{84} - 4Y_{84} \leq +0 \quad \text{(G84)} \quad (328)$$
$$X_{85} - Y_{85} \leq +0 \quad \text{(G85)} \quad (329)$$
$$X_{86} - 24Y_{86} \leq +0 \quad \text{(G86)} \quad (330)$$
$$X_{87} - 44Y_{87} \leq +0 \quad \text{(G87)} \quad (331)$$
$$X_{88} - 3Y_{88} \leq +0 \quad \text{(G88)} \quad (332)$$
$$X_{89} - 8Y_{89} \leq +0 \quad \text{(G89)} \quad (333)$$
$$X_{90} - 3Y_{90} \leq +0 \quad \text{(G90)} \quad (334)$$
$$X_{91} - 11Y_{91} \leq +0 \quad \text{(G91)} \quad (335)$$
$$X_{92} - 3Y_{92} \leq +0 \quad \text{(G92)} \quad (336)$$
$$X_{93} - 15Y_{93} \leq +0 \quad \text{(G93)} \quad (337)$$
$$X_{94} - 11Y_{94} \leq +0 \quad \text{(G94)} \quad (338)$$
$$X_{95} - 2Y_{95} \leq +0 \quad \text{(G95)} \quad (339)$$
$$X_{96} - 19Y_{96} \leq +0 \quad \text{(G96)} \quad (340)$$
$$X_{97} - 8Y_{97} \leq +0 \quad \text{(G97)} \quad (341)$$

$$X_{98} - Y_{98} \leq +0 \quad \text{(G98)} \quad (342)$$

$$X_{99} - 4Y_{99} \leq +0 \quad \text{(G99)} \quad (343)$$

$$X_{100} - 8Y_{100} \leq +0 \quad \text{(G100)} \quad (344)$$

$$X_{101} - Y_{101} \leq +0 \quad \text{(G101)} \quad (345)$$

$$X_{102} - 6Y_{102} \leq +0 \quad \text{(G102)} \quad (346)$$

$$X_{103} - 4Y_{103} \leq +0 \quad \text{(G103)} \quad (347)$$

$$X_{104} - 6Y_{104} \leq +0 \quad \text{(G104)} \quad (348)$$

$$X_{105} - 2Y_{105} \leq +0 \quad \text{(G105)} \quad (349)$$

$$X_{106} - 7Y_{106} \leq +0 \quad \text{(G106)} \quad (350)$$

$$X_{107} - 3Y_{107} \leq +0 \quad \text{(G107)} \quad (351)$$

$$X_{108} - 9Y_{108} \leq +0 \quad \text{(G108)} \quad (352)$$

$$X_{109} - 22Y_{109} \leq +0 \quad \text{(G109)} \quad (353)$$

$$X_{110} - 31Y_{110} \leq +0 \quad \text{(G110)} \quad (354)$$

$$X_{111} - 2Y_{111} \leq +0 \quad \text{(G111)} \quad (355)$$

$$X_{112} - 9Y_{112} \leq +0 \quad \text{(G112)} \quad (356)$$

$$X_{113} - 12Y_{113} \leq +0 \quad \text{(G113)} \quad (357)$$

$$X_{114} - 5Y_{114} \leq +0 \quad \text{(G114)} \quad (358)$$

$$X_{115} - 4Y_{115} \leq +0 \quad \text{(G115)} \quad (359)$$

$$X_{116} - 7Y_{116} \leq +0 \quad \text{(G116)} \quad (360)$$

$$X_{117} - 11Y_{117} \leq +0 \quad \text{(G117)} \quad (361)$$

$$X_{118} - 33Y_{118} \leq +0 \quad \text{(G118)} \quad (362)$$

$$X_{119} - 17Y_{119} \leq +0 \quad \text{(G119)} \quad (363)$$

$$X_{120} - 15Y_{120} \leq +0 \quad \text{(G120)} \quad (364)$$

$$X_{121} - 3Y_{121} \leq +0 \quad \text{(G121)} \quad (365)$$

$$X_{122} - 5Y_{122} \leq +0 \quad \text{(G122)} \quad (366)$$

$$X_{123} - 4Y_{123} \leq +0 \quad \text{(G123)} \quad (367)$$

$$X_{124} - 4Y_{124} \leq +0 \quad \text{(G124)} \quad (368)$$

$$X_{125} - 17Y_{125} \leq +0 \quad \text{(G125)} \quad (369)$$

$$X_{126} - 7Y_{126} \leq +0 \quad \text{(G126)} \quad (370)$$

$$X_{127} - 15Y_{127} \leq +0 \quad \text{(G127)} \quad (371)$$

$$X_{128} - 6Y_{128} \leq +0 \quad \text{(G128)} \quad (372)$$

$$X_{129} - 8Y_{129} \leq +0 \quad \text{(G129)} \quad (373)$$

$$X_{130} - 8Y_{130} \leq +0 \quad \text{(G130)} \quad (374)$$

$$X_{131} - 30Y_{131} \leq +0 \quad \text{(G131)} \quad (375)$$

$$X_{132} - 14Y_{132} \leq +0 \quad \text{(G132)} \quad (376)$$

$$X_{133} - 32Y_{133} \leq +0 \quad \text{(G133)} \quad (377)$$

$$X_{134} - 2Y_{134} \leq +0 \quad \text{(G134)} \quad (378)$$

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$$X_{136} - 7Y_{136} \leq +0 \quad \text{(G136)} \quad (380)$$

$$X_{137} - 2Y_{137} \leq +0 \quad \text{(G137)} \quad (381)$$

$$X_{138} - 3Y_{138} \leq +0 \quad \text{(G138)} \quad (382)$$

$$X_{139} - 43Y_{139} \leq +0 \quad \text{(G139)} \quad (383)$$

$$X_{140} - 18Y_{140} \leq +0 \quad \text{(G140)} \quad (384)$$

$$X_{141} - 8Y_{141} \leq +0 \quad \text{(G141)} \quad (385)$$

$$X_{142} - 10Y_{142} \leq +0 \quad \text{(G142)} \quad (386)$$

$$X_{143} - 8Y_{143} \leq +0 \quad \text{(G143)} \quad (387)$$

$$X_{144} - 21Y_{144} \leq +0 \quad \text{(G144)} \quad (388)$$

$$X_{145} - 4Y_{145} \leq +0 \quad \text{(G145)} \quad (389)$$

$$X_{146} - 11Y_{146} \leq +0 \quad \text{(G146)} \quad (390)$$

$$X_{147} - 3Y_{147} \leq +0 \quad \text{(G147)} \quad (391)$$

$$X_{148} - 4Y_{148} \leq +0 \quad \text{(G148)} \quad (392)$$

$$X_{149} - Y_{149} \leq +0 \quad \text{(G149)} \quad (393)$$

$$X_{150} - 24Y_{150} \leq +0 \quad \text{(G150)} \quad (394)$$

$$X_{151} - 44Y_{151} \leq +0 \quad \text{(G151)} \quad (395)$$

$$X_{152} - 3Y_{152} \leq +0 \quad \text{(G152)} \quad (396)$$

$$X_{153} - 8Y_{153} \leq +0 \quad \text{(G153)} \quad (397)$$

$$X_{154} - 3Y_{154} \leq +0 \quad \text{(G154)} \quad (398)$$

$$X_{155} - 11Y_{155} \leq +0 \quad \text{(G155)} \quad (399)$$

$$X_{156} - 3Y_{156} \leq +0 \quad \text{(G156)} \quad (400)$$

$$X_{157} - 15Y_{157} \leq +0 \quad \text{(G157)} \quad (401)$$

$$X_{158} - 11Y_{158} \leq +0 \quad \text{(G158)} \quad (402)$$

$$X_{159} - 2Y_{159} \leq +0 \quad \text{(G159)} \quad (403)$$

$$X_{160} - 19Y_{160} \leq +0 \quad \text{(G160)} \quad (404)$$

$$X_{161} - 8Y_{161} \leq +0 \quad \text{(G161)} \quad (405)$$

$$X_{162} - Y_{162} \leq +0 \quad \text{(G162)} \quad (406)$$

$$X_{163} - 4Y_{163} \leq +0 \quad \text{(G163)} \quad (407)$$

$$X_{164} - 8Y_{164} \leq +0 \quad \text{(G164)} \quad (408)$$

$$X_{165} - Y_{165} \leq +0 \quad \text{(G165)} \quad (409)$$

$$X_{166} - 6Y_{166} \leq +0 \quad \text{(G166)} \quad (410)$$

$$X_{167} - 4Y_{167} \leq +0 \quad \text{(G167)} \quad (411)$$

$$X_{168} - 6Y_{168} \leq +0 \quad \text{(G168)} \quad (412)$$

$$X_{169} - 2Y_{169} \leq +0 \quad \text{(G169)} \quad (413)$$

$$X_{170} - 7Y_{170} \leq +0 \quad \text{(G170)} \quad (414)$$

$$X_{171} - 3Y_{171} \leq +0 \quad \text{(G171)} \quad (415)$$

$$X_{172} - 9Y_{172} \leq +0 \quad \text{(G172)} \quad (416)$$

$$X_{173} - 22Y_{173} \leq +0 \quad \text{(G173)} \quad (417)$$

$$X_{174} - 31Y_{174} \leq +0 \quad \text{(G174)} \quad (418)$$

$$X_{175} - 2Y_{175} \leq +0 \quad \text{(G175)} \quad (419)$$

$$X_{176} - 9Y_{176} \leq +0 \quad \text{(G176)} \quad (420)$$

$$X_{177} - 12Y_{177} \leq +0 \quad \text{(G177)} \quad (421)$$

$$X_{178} - 5Y_{178} \leq +0 \quad \text{(G178)} \quad (422)$$

$$X_{179} - 4Y_{179} \leq +0 \quad \text{(G179)} \quad (423)$$

$$X_{180} - 7Y_{180} \leq +0 \quad \text{(G180)} \quad (424)$$

$$X_{181} - 11Y_{181} \leq +0 \quad \text{(G181)} \quad (425)$$

$$X_{182} - 33Y_{182} \leq +0 \quad \text{(G182)} \quad (426)$$

$$X_{183} - 17Y_{183} \leq +0 \quad \text{(G183)} \quad (427)$$

$$X_{184} - 15Y_{184} \leq +0 \quad \text{(G184)} \quad (428)$$

$$X_{185} - 3Y_{185} \leq +0 \quad \text{(G185)} \quad (429)$$

$$X_{186} - 5Y_{186} \leq +0 \quad \text{(G186)} \quad (430)$$

$$X_{187} - 4Y_{187} \leq +0 \quad \text{(G187)} \quad (431)$$

$$X_{188} - 4Y_{188} \leq +0 \quad \text{(G188)} \quad (432)$$

$$X_{189} - 17Y_{189} \leq +0 \quad \text{(G189)} \quad (433)$$

$$X_{190} - 7Y_{190} \leq +0 \quad \text{(G190)} \quad (434)$$

$$X_{191} - 15Y_{191} \leq +0 \quad \text{(G191)} \quad (435)$$

$$X_{192} - 6Y_{192} \leq +0 \quad \text{(G192)} \quad (436)$$

$$X_{193} - 8Y_{193} \leq +0 \quad \text{(G193)} \quad (437)$$

$$X_{194} - 8Y_{194} \leq +0 \quad \text{(G194)} \quad (438)$$

$$X_{195} - 30Y_{195} \leq +0 \quad \text{(G195)} \quad (439)$$

$$X_{196} - 14Y_{196} \leq +0 \quad \text{(G196)} \quad (440)$$

$$X_{197} - 32Y_{197} \leq +0 \quad \text{(G197)} \quad (441)$$

$$X_{198} - 2Y_{198} \leq +0 \quad \text{(G198)} \quad (442)$$

$$X_{199} - 2Y_{199} \leq +0 \quad \text{(G199)} \quad (443)$$

$$X_{200} - 7Y_{200} \leq +0 \quad \text{(G200)} \quad (444)$$

$$X_{201} - 2Y_{201} \leq +0 \quad \text{(G201)} \quad (445)$$

$$X_{202} - 3Y_{202} \leq +0 \quad \text{(G202)} \quad (446)$$

$$X_{203} - 43Y_{203} \leq +0 \quad \text{(G203)} \quad (447)$$

$$X_{204} - 18Y_{204} \leq +0 \quad \text{(G204)} \quad (448)$$

$$X_{205} - 8Y_{205} \leq +0 \quad \text{(G205)} \quad (449)$$

$$X_{206} - 10Y_{206} \leq +0 \quad \text{(G206)} \quad (450)$$

$$X_{207} - 8Y_{207} \leq +0 \quad \text{(G207)} \quad (451)$$

$$X_{208} - 21Y_{208} \leq +0 \quad \text{(G208)} \quad (452)$$

$$X_{209} - 4Y_{209} \leq +0 \quad \text{(G209)} \quad (453)$$

$$X_{210} - 11Y_{210} \leq +0 \quad \text{(G210)} \quad (454)$$

$$X_{211} - 3Y_{211} \leq +0 \quad \text{(G211)} \quad (455)$$

$$X_{212} - 4Y_{212} \leq +0 \quad \text{(G212)} \quad (456)$$

$$X_{213} - Y_{213} \leq +0 \quad \text{(G213)} \quad (457)$$

$$X_{214} - 24Y_{214} \leq +0 \quad \text{(G214)} \quad (458)$$

$$X_{215} - 44Y_{215} \leq +0 \quad \text{(G215)} \quad (459)$$

$$X_{216} - 3Y_{216} \leq +0 \quad \text{(G216)} \quad (460)$$

$$X_{217} - 8Y_{217} \leq +0 \quad \text{(G217)} \quad (461)$$

$$X_{218} - 3Y_{218} \leq +0 \quad \text{(G218)} \quad (462)$$

$$X_{219} - 11Y_{219} \leq +0 \quad \text{(G219)} \quad (463)$$

$$X_{220} - 3Y_{220} \leq +0 \quad \text{(G220)} \quad (464)$$

$$X_{221} - 15Y_{221} \leq +0 \quad \text{(G221)} \quad (465)$$

$$X_{222} - 11Y_{222} \leq +0 \quad \text{(G222)} \quad (466)$$

$$X_{223} - 2Y_{223} \leq +0 \quad \text{(G223)} \quad (467)$$

$$X_{224} - 19Y_{224} \leq +0 \quad \text{(G224)} \tag{468}$$
$$X_{225} - 8Y_{225} \leq +0 \quad \text{(G225)} \tag{469}$$
$$X_{226} - Y_{226} \leq +0 \quad \text{(G226)} \tag{470}$$
$$X_{227} - 4Y_{227} \leq +0 \quad \text{(G227)} \tag{471}$$
$$X_{228} - 8Y_{228} \leq +0 \quad \text{(G228)} \tag{472}$$
$$X_{229} - Y_{229} \leq +0 \quad \text{(G229)} \tag{473}$$
$$X_{230} - 6Y_{230} \leq +0 \quad \text{(G230)} \tag{474}$$
$$X_{231} - 4Y_{231} \leq +0 \quad \text{(G231)} \tag{475}$$
$$X_{232} - 6Y_{232} \leq +0 \quad \text{(G232)} \tag{476}$$
$$X_{233} - 2Y_{233} \leq +0 \quad \text{(G233)} \tag{477}$$
$$X_{234} - 7Y_{234} \leq +0 \quad \text{(G234)} \tag{478}$$
$$X_{235} - 3Y_{235} \leq +0 \quad \text{(G235)} \tag{479}$$
$$X_{236} - 9Y_{236} \leq +0 \quad \text{(G236)} \tag{480}$$
$$X_{237} - 22Y_{237} \leq +0 \quad \text{(G237)} \tag{481}$$
$$X_{238} - 31Y_{238} \leq +0 \quad \text{(G238)} \tag{482}$$
$$X_{239} - 2Y_{239} \leq +0 \quad \text{(G239)} \tag{483}$$
$$X_{240} - 9Y_{240} \leq +0 \quad \text{(G240)} \tag{484}$$
$$X_{241} - 12Y_{241} \leq +0 \quad \text{(G241)} \tag{485}$$
$$X_{242} - 5Y_{242} \leq +0 \quad \text{(G242)} \tag{486}$$
$$X_{243} - 4Y_{243} \leq +0 \quad \text{(G243)} \tag{487}$$
$$X_{244} - 7Y_{244} \leq +0 \quad \text{(G244)} \tag{488}$$
$$X_{245} - 11Y_{245} \leq +0 \quad \text{(G245)} \tag{489}$$
$$X_{246} - 33Y_{246} \leq +0 \quad \text{(G246)} \tag{490}$$
$$X_{247} - 17Y_{247} \leq +0 \quad \text{(G247)} \tag{491}$$
$$X_{248} - 15Y_{248} \leq +0 \quad \text{(G248)} \tag{492}$$
$$X_{249} - 3Y_{249} \leq +0 \quad \text{(G249)} \tag{493}$$
$$X_{250} - 5Y_{250} \leq +0 \quad \text{(G250)} \tag{494}$$
$$X_{251} - 4Y_{251} \leq +0 \quad \text{(G251)} \tag{495}$$
$$X_{252} - 4Y_{252} \leq +0 \quad \text{(G252)} \tag{496}$$
$$X_{253} - 17Y_{253} \leq +0 \quad \text{(G253)} \tag{497}$$
$$X_{254} - 7Y_{254} \leq +0 \quad \text{(G254)} \tag{498}$$
$$X_{255} - 15Y_{255} \leq +0 \quad \text{(G255)} \tag{499}$$
(500)

4 变量定义

4.1 二元变量 (256 个)

$$Y_i \in \{0, 1\}, \quad i \in \{0, 1, 2, \ldots, 255\} \tag{501}$$

二元变量示例 (显示前 50 个，共 256 个):

Y_{254}, Y_0, Y_1, Y_2, Y_3, Y_4, Y_5, Y_6, Y_7, Y_8,
Y_9, Y_{10}, Y_{11}, Y_{12}, Y_{13}, Y_{14}, Y_{15}, Y_{16}, Y_{17}, Y_{18},
Y_{19}, Y_{20}, Y_{21}, Y_{22}, Y_{23}, Y_{24}, Y_{25}, Y_{26}, Y_{27}, Y_{28},

Y_{29}, Y_{30}, Y_{31}, Y_{32}, Y_{33}, Y_{34}, Y_{35}, Y_{36}, Y_{37}, Y_{38},
Y_{39}, Y_{40}, Y_{41}, Y_{42}, Y_{43}, Y_{44}, Y_{45}, Y_{46}, Y_{47}, Y_{48}

... 还有 206 个二元变量

4.2 连续变量 (256 个)

所有连续变量均为非负实数:

$$X_j \geq 0, \quad j \in \{0, 1, 2, \ldots, 255\} \tag{502}$$

连续变量说明: 模型包含 256 个连续决策变量，所有变量的取值范围均为非负实数域。