

INVESTIGATION ON DEGREE EQUATIONS AND BASIC SETS FOR BLOCKS OF FINITE GROUPS

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<https://doi.org/10.11501/3075550>

出版情報 : 九州大学, 1993, 博士 (理学), 論文博士
バージョン :
権利関係 :

APPENDIX

Group: M_{11}

Prime: 2

Defect: 4

BS	χ_1	χ_2	χ_8
χ_3		1	
χ_4		1	
χ_5	1	1	
χ_9	1		1
χ_{10}	1	1	1

Group: M_{11}

Prime: 3

Defect: 2

BS	χ_1	χ_2	χ_3	χ_4	χ_6	χ_7	χ_8
χ_5	-1		-1	-1	1	1	
χ_{10}	1	-1	1	1			1

Group: $M_{12} \left[\begin{array}{cc} G & G.2 \\ 2.G & 2.G.2 \end{array} \right]$

Prime: 2

Defect: $\begin{array}{cc} 2 & 3 \\ 3 & 4 \end{array}$

BS	χ_4	χ_5	χ_{14}
χ_{15}	1	1	1
χ_{19}	1	1	
χ_{25}		1	1
χ_{26}	1		1

Group: $M_{12} \left[\begin{array}{cc} G & G.2 \\ 2.G & 2.G.2 \end{array} \right]$

Prime: 2

Defect: $\begin{array}{cc} 6 & 7 \\ 7 & 8 \end{array}$

BS	χ_1	χ_6	χ_8
χ_2	1	-1	1
χ_3	1	-1	1
χ_7	-1		1
χ_9			1
χ_{10}			1
χ_{11}	1	-1	2
χ_{12}	-1	1	1
χ_{13}		-1	3
χ_{16}		-1	1
χ_{17}		-1	1
χ_{18}	2	-1	1
χ_{20}	-1	1	
χ_{21}	-1	1	
χ_{22}			2
χ_{23}			2
χ_{24}		-1	3

Group: M_{12} [G G.2]

Prime: 3

Defect: 3 3

BS	χ_1	χ_2	χ_3	χ_4	χ_5	χ_8	χ_9	χ_{10}
χ_{11} :	1^1	-1	-1	1	1	1^1		
χ_{13} :		-1	-1	1	1		1	1
χ_{15} :	1^0	-1	-1	1	1	1^1	1	1

Group: M_{12} [$2.G$ 2.G.2]

Prime: 3

Defect: 3 3

BS	χ_{16}	χ_{17}	χ_{20}	χ_{21}	χ_{22}	χ_{23}	χ_{25}	χ_{26}
χ_{18} :			-1	-1	-1	-1	1	1
χ_{19} :	1^1	1^0	-1	-1	-1	-1	1	1
χ_{24} :	1^1	1^1			-1	-1	1	1

Group: J_1

Prime: 2

Defect: 3

BS	χ_1	χ_6	χ_7	χ_8	χ_{12}
χ_{13}		1	-1		1
χ_{14}		1		-1	1
χ_{15}	-1	1			1

Group: M_{22} $\begin{bmatrix} G & G.2 \\ 2.G & 2.G.2 \\ 4.G & 4.G.2 \end{bmatrix}$

Prime: 2

Defect: $\begin{matrix} 7 & 8 \\ 8 & 9 \\ 9 & 10 \end{matrix}$

BS	X1	X2	X3	X5	X6	X10	X11
X4 :	1	-1	-1	2			
X7 :				1	1		
X8 :	1			2	1		
X9 :		-1		-2	-2	1	1
X12 :		-1		-1	-1	1	1
X13 :	-1	1	1	-1			
X14 :			-1	1			
X15 :	1			1			
X16 :		1			1		
X17 :				-1	-1	1	
X18 :				-1	-1		1
X19 :				1	1		
X20 :				1	1		
X21 :	1			2	1		
X22 :		-1		-2	-1	1	1
X23 :		-1			-1	1	1
X24 :	1			1			
X25 :	1			1			
X26 * :	1	-1	-1	2	1		
X27 * :			1		1		
X28 :		-1			-1	1	
X29 :		-1			-1		1
X30 * :		-1		-3	-2	1	1
X31 * :						1	1

Group: M_{22} $\begin{bmatrix} 3.G & 3.G.2 \\ 6.G & 6.G.2 \\ 12.G & 12.G.2 \end{bmatrix}$

Prime: 2

Defect: $\begin{matrix} 7 & 8 \\ 8 & 9 \\ 9 & 10 \end{matrix}$

BS	X32	X33	X34	X36	X37
X35 * :	-1	-1	-1	1	1
X38 * :				1	1
X39 * :	1			1	1
X40 * :	1			1	1
X41 * :		-1	-1	2	2
X43 * :	1	1			
X44 * :	1		1		
X45 * :		-1	-1	1	1
X46 :	1				1
X47 * :	1			1	
X48 * :				1	1
X49 :				1	1
X50 * :				1	1
X51 * :		-1	-1	2	2
X53 :		-1	-1	1	1
X54 ** :		-1	-1	1	1
X55 ** :	-1	-1		1	1
X56 ** :	-1		-1	1	1
X57 :	1			2	1
X58 ** :	1			1	2

Group: $M_{22} \left[\begin{array}{cc} G & G.2 \\ 3.G & 3.G.2 \end{array} \right]$

Prime: 3

Defect: $\begin{array}{cc} 2 & 2 \\ 3 & 3 \end{array}$

BS	χ_1	χ_5	χ_{10}	χ_{11}	χ_{12}
$\chi_7 :$	-1^0	-1^0	-1	-1	2
$\chi_{36} \downarrow$			-1		1
$\chi_{37} *$				-1	1
$\chi_{40} *$	1	1	1	1	-1
$\chi_{41} *$		-1			1
$\chi_{42} *$	-1				1

Group: $M_{22} [3.G.3.G.2]$

Prime: 3

Defect: 2 2

BS	χ_2	χ_8
$\chi_9 :$	1^0	1^1
$\chi_{32} *$	1	
$\chi_{38} *$		1
$\chi_{39} *$	1	1

Group: $M_{22} \left[\begin{array}{cc} 2.G & 2.G.2 \\ 6.G & 6.G.2 \end{array} \right]$

Prime: 3

Defect: $\begin{array}{cc} 2 & 2 \\ 3 & 3 \end{array}$

BS	χ_{13}	χ_{14}	χ_{15}	χ_{19}	χ_{20}
$\chi_{23} :$	1^1	1^1	2	1	1
$\chi_{43} *$	1		1		
$\chi_{44} *$		1	1		
$\chi_{49} \downarrow$			1	1	
$\chi_{50} *$			1		1
$\chi_{52} *$	1	1	1	1	1

Group: $M_{22} [6.G.6.G.2]$

Prime: 3

Defect: 2 2

BS	χ_{16}	χ_{21}
$\chi_{22} :$	1^0	1^1
$\chi_{45} *$	1	
$\chi_{48} *$		1
$\chi_{51} *$	1	1

Group: M_{22} $\begin{bmatrix} 4.G & 4.G.2 \\ 12.G & 12.G.2 \end{bmatrix}$

Prime: 3

Defect: $\begin{matrix} 2 & 2 \\ 3 & 3 \end{matrix}$

BS	χ_{24}	χ_{25}	χ_{28}	χ_{29}	χ_{30}
χ_{31}^*	-1	-1	1	1	2
χ_{53}		-1			1
χ_{54}^{**}	-1				1
χ_{57}			1		1
χ_{58}^{**}				1	1
χ_{59}^{**}	-1	-1	1	1	1

Group: J_2 $\begin{bmatrix} G & G.2 \\ 2.G & 2.G.2 \end{bmatrix}$

Prime: 2

Defect: $\begin{matrix} 7 & 8 \\ 8 & 9 \end{matrix}$

BS	χ_1	χ_2	χ_3	χ_4	χ_5	χ_6	χ_{11}
χ_7	-1	-2	-2	2	2	1	
χ_8	-1		-2	2	1	1	
χ_9	-1	-2		1	2	1	
χ_{10}	-2	-1	-1	2	2	1	
χ_{13}	-1	-1	-1	1	1	1	1
χ_{14}	-1		-1	1	1	1	1
χ_{15}	-1	-1		1	1	1	1
χ_{18}	-1	-2	-2	2	2	2	1
χ_{20}	-2	-1	-1	1	1	1	2
χ_{21}	-2	-1	-1	1	1	2	2
χ_{22}	-1		-1	1			
χ_{23}	-1	-1			1		
χ_{24}		-1	-1	1	1		
χ_{25}		-1	-1	1	1	1	
χ_{26}		-1	-1	1	1	1	
χ_{27}	-1	-1	-2	2	1	1	
χ_{28}	-1	-2	-1	1	2	1	
χ_{31}				-1	-1		1
χ_{32}		-1	1				1
χ_{33}		1	-1				1
χ_{34}	-2	-1	-1	2	2	1	1
χ_{35}	-2	-1	-1	2	2	2	1
χ_{36}	-2	-1	-1	1	1	2	2
χ_{37}	-2	-2	-2	2	2	2	2

Group: J_2 $\begin{bmatrix} G & G.2 \\ 2.G & 2.G.2 \end{bmatrix}$

Prime: 2

Defect: $\begin{matrix} 2 & 3 \\ 3 & 4 \end{matrix}$

BS	χ_{12}	χ_{16}	χ_{17}
χ_{19}	-1	1	1
χ_{29}	-1	1	
χ_{30}	-1		1
χ_{38}		1	1

Group: J_2 [G $G.2$]

Prime: 3

Defect: 3 3

BS	χ_1	χ_2	χ_3	χ_4	χ_5	χ_8	χ_9	χ_{12}
χ_{13} :	1^0	-1	-1	1	1			1^1
χ_{16} |	1	-1	-1		1	1		1
χ_{17} |	1	-1	-1	1			1	1
χ_{20} :	(∓ 1)					1	1	1^1
χ_{21} :	2	-1	-1	1	1			2

Group: J_2 [$2.G$ $2.G.2$]

Prime: 3

Defect: 3 3

BS	χ_{22}	χ_{23}	χ_{24}	χ_{25}	χ_{26}	χ_{27}	χ_{28}	χ_{36}
χ_{29} |		-1	1			1		
χ_{30} |	-1		1				1	
χ_{31} :	1	1	-2	1	1			
χ_{37} :	-1	-1	1^1	-1	-1	1	1	1^1
χ_{38} :			(± 1)			1	1	1^1

Group: J_2 [G $G.2$]

Prime: 5

Defect: 2 2

BS	χ_1	χ_6	χ_7	χ_{11}	χ_{19}	χ_{21}
χ_2 |	-1		1		1	-1
χ_3 |	-1		1		1	-1
χ_4 |		1	-1		-1	1
χ_5 |		1	-1		-1	1
χ_{14} |		-1	1	-1	1	
χ_{15} |		-1	1	-1	1	
χ_{16} |	-1		1	-1	1	
χ_{17} |	-1		1	-1	1	

Group: J_2 [$2.G$ $2.G.2$]

Prime: 5

Defect: 2 2

BS	χ_{24}	χ_{31}	χ_{34}	χ_{35}	χ_{36}	χ_{38}
χ_{22} |	-1		1	1		-1
χ_{23} |	-1		1	1		-1
χ_{27} |		-1		1	1	-1
χ_{28} |		-1		1	1	-1
χ_{29} |		1	-1	-1		1
χ_{30} |		1	-1	-1		1
χ_{32} |	-1			1	1	-1
χ_{33} |	-1			1	1	-1

Group: M_{23}

Prime: 2

Defect: 7

BS	χ_1	χ_3	χ_4	χ_5	χ_7	χ_8	χ_9	χ_{10}	χ_{11}
χ_2		-1	-1	-2	-1	-1	-2	1	1
χ_6	1			1					
χ_{14}		1		1	1	1	1		
χ_{15}			1	1	1	1	1		
χ_{16}		1	1	1	1	1	1		
χ_{17}	-1			-1	1	1	1	1	1

Group: M_{23}

Prime: 3

Defect: 2

BS	χ_1	χ_2	χ_9	χ_{10}	χ_{11}	χ_{12}	χ_{13}
χ_5		-1		-1	-1	1	1
χ_{17}	1	-1	1			1	1

Group: $HS \begin{bmatrix} G & G.2 \\ 2G & 2.G.2 \end{bmatrix}$

Prime: 2

Defect: $\begin{matrix} 9 & 10 \\ 10 & 11 \end{matrix}$

BS	χ_1	χ_2	χ_3	χ_4	χ_9	χ_{16}
χ_5				1		
χ_6				1		
χ_7	-1	1		1		
χ_8				1		
χ_{10}			1		1	
χ_{11}			1		1	
χ_{12}			1		1	
χ_{13}		-1	2		1	
χ_{17}		1		2		1
χ_{19}	1				1	1
χ_{20}		1		1	1	1
χ_{21}		1		1	1	1
χ_{22}	1		1		2	1
χ_{23}			2	1	2	1
χ_{25}	1	-1	1			
χ_{26}		1		1		
χ_{27}		1		1		
χ_{28}			1	-1	1	
χ_{29}			1	-1	1	
χ_{30}			1	1	1	
χ_{31}			1	1	1	
χ_{32}	-1		2	1	1	
χ_{33}		1		1		1
χ_{34}		1		1		1
χ_{36}		1	-1	1	1	1
χ_{37}			1	1	1	1
χ_{38}			1	1	1	1
χ_{41}	1		1		2	1
χ_{42}	1		1		2	1

Group: $HS \left[\begin{matrix} G & G.2 \\ 2.G & 2.G.2 \end{matrix} \right]$

Prime: 2

Defect: $\begin{matrix} 2 & 3 \\ 3 & 4 \end{matrix}$

BS	χ_{14}	χ_{15}	χ_{18}
χ_{24} :	1	1	1
χ_{35} :	1	1	
χ_{39} |	1		1
χ_{40} |		1	1

Group: $HS [G G.2]$

Prime: 3

Defect: 2 2

BS	χ_1^\pm	χ_2^\mp	χ_{10}^\mp	χ_{18}^\pm	χ_{20}^\mp	χ_{23}^\pm	χ_{24}^\mp
χ_4^\pm	-1	1		1	1		-1
χ_{19}^\pm		1	1	1		1	-1

Group: $HS [G G.2]$

Prime: 3

Defect: 2 2

BS	χ_3	χ_5	χ_6	χ_{11}	χ_{12}	χ_{14}	χ_{15}
χ_7 :	-1^0			-1	-1	1	1
χ_{21} :	1^1	1	1	1	1		

Group: $HS [2.G 2.G.2]$

Prime: 3

Defect: 2 2

BS	χ_{25}	χ_{26}	χ_{27}	χ_{32}	χ_{35}
χ_{28} |			-1	-1	1
χ_{29} |		-1		-1	1
χ_{33} |	1	1		1	
χ_{34} |	1		1	1	

Group: $HS [G G.2]$

Prime: 5

Defect: 3 3

BS	χ_1	χ_2	χ_3	χ_4	χ_5	χ_6	χ_8	χ_9	χ_{14}	χ_{15}
χ_{10} :	(∓ 1)	(± 1)	-1^{-1}	2^2	1	1	1^1			
χ_{11} |	1	-1	2				1	-2	1	1
χ_{12} |	1	-1	2				1	-2	1	1
χ_{16} :		-1^{-1}	-1^0	1^0	1	1		1^1		
χ_{17} :	1^0	-1^0	1^0	(± 1)			1^1	-1^{-1}	1	1
χ_{18} :	1^1		1^0				1^1	-1^0	1	1
χ_{22} :	2	-2			1	1	2		1	1

Group: $HS [2.G 2.G.2]$

Prime: 5

Defect: 3 3

BS	χ_{26}	χ_{27}	χ_{28}	χ_{29}	χ_{33}	χ_{34}	χ_{37}	χ_{38}	χ_{39}	χ_{40}
$\chi_{25} :$	2	2	-2	-2	1	1	1	1	-1	-1
$\chi_{30} |$		-1	2	1	1		-1			
$\chi_{31} |$	-1		1	2		1		-1		
$\chi_{35} :$	-1	-1			-1	-1			1	1
$\chi_{36} :$	1	1	-2	-2			1	1		
$\chi_{41} :$	2	2	-2	-2	2	2	1	1	-1	-1
$\chi_{42} :$	2	2	-2	-2	2	2	1	1	-1	-1

Group: $J_3 [G G.2]$

Prime: 2

Defect: 7 8

BS	χ_1	χ_2	χ_3	χ_4	χ_5	χ_6	χ_7	χ_8	χ_{11}	χ_{12}
$\chi_9 :$		1	1	1	1					
$\chi_{10} :$		1	1	1	1	1				
$\chi_{13} :$	1	-1	-1	-1	-1				1	1
$\chi_{17} |$	1	-1	-1		-1				1	1
$\chi_{18} |$	1	-1	-1	-1					1	1
$\chi_{20} :$						1			1	1
$\chi_{21} :$	2	-1	-1	-1	-1	1	-1	-1	2	2

Group: $J_3 [3.G 3.G.2]$

Prime: 2

Defect: 7 8

BS	χ_{22}	χ_{23}	χ_{26}	χ_{27}	χ_{28}	χ_{29}	χ_{30}	χ_{31}	χ_{32}	χ_{33}
$\chi_{24} |$		-1	1							
$\chi_{25} *$	-1		1							
$\chi_{34} *$	-1	-1	2							
$\chi_{35} *$						1	1	1		
$\chi_{36} *$	-1	-1	1	1	1		1	1		
$\chi_{37} *$	-1	-1	2			1	1	1		
$\chi_{38} *$	1	1		-1	-1	1			1	1

Group: $J_3 \left[\begin{array}{cc} G & G.2 \\ 3.G & 3.G.2 \end{array} \right]$

Prime: 3

Defect: $\begin{array}{cc} 5 & 5 \\ 6 & 6 \end{array}$

BS	χ_1	χ_2	χ_3	χ_4	χ_5	χ_7	χ_8	χ_{10}
χ_9		1	1	-1	-1	1	1	
χ_{13}	-1 ⁻¹	-1	-1	1	1			1 ¹
χ_{14}	-2 ⁻²	-3	-3	2	2			1 ¹
χ_{15}	-2 ⁻²	-3	-3	2	2			1 ¹
χ_{16}	-2 ⁻²	-3	-3	2	2			1 ¹
χ_{17}	-1	-1	-1		1	1		1
χ_{18}	-1	-1	-1	1			1	1
χ_{19}	(∓ 1)					1	1	1 ¹
χ_{22}	1	2	2	-2	-1	1		
χ_{23}	1	2	2	-1	-2		1	
χ_{24}		-1	-1	1				
χ_{25}		-1	-1		1			
χ_{26} *	1	1	1					
χ_{27}	1	1	1	-1	-1	1		
χ_{28} *	1	1	1	-1	-1		1	
χ_{32} *	-1	-2	-1	1	1			1
χ_{33} *	-1	-1	-2	1	1			1
χ_{34} *	-2	-2	-2	1	1	1	1	1
χ_{36} *	-1	-1	-1	1	1	1	1	1
χ_{37} *	-2	-3	-3	2	2			2

Group: M_{24}

Prime: 2

Defect: 10

BS	χ_1	χ_3	χ_4	χ_5	χ_6	χ_7	χ_9	χ_{10}	χ_{11}	χ_{15}	χ_{16}	χ_{19}	χ_{23}
χ_2	1	1	1	1	1			1	1	-1	-1		
χ_8	1					1							
χ_{12}		1		1	1		1						
χ_{13}			1	1	1		1						
χ_{14}		1	1	1	1		1						
χ_{17}						1	1	-1	-1	1	1		
χ_{18}	1	1	1	1	1	1	2						
χ_{20}		1	1	1	1	-1	1	1	1	-1	-1	1	
χ_{21}						-1		1	1				1
χ_{22}		1	1	2	2		2	1	1				
χ_{24}		1	1	2	2		2	1	1			1	
χ_{25}							1						1
χ_{26}		1	1	1	1		2	1	1			1	1

Group: M_{24}

Prime: 3

Defect: 3

BS	χ_1	χ_2	χ_8	χ_9	χ_{10}	χ_{11}	χ_{17}
χ_5	1	-1	1				
χ_6	1	-1	1				
χ_{18}	1	-1	1		1	1	
χ_{19}	1			1	1	1	
χ_{22}	2	-1	1	1	1	1	1
χ_{23}	2	-1	2	1	2	2	1

Group: M^cL [G $G.2$]

Prime: 2

Defect: 7 8

BS	χ_1	χ_2	χ_3	χ_5	χ_6	χ_{14}	χ_{16}	χ_{17}
χ_4 :	-1	1	1					
χ_9 :	1	-1	1	1	1			
χ_{12} :	-1	-1	1	-1	-1	-2	1	1
χ_{13} :	-2		2	-1	-1	-2	1	1
χ_{15} :	1	-1	2			1		
χ_{18} |			1				1	
χ_{19} |			1					1
χ_{20} :	-1		1	-1	-1	-1	1	1
χ_{23} |	-1		1		-1	-1	1	1
χ_{24} |	-1		1	-1		-1	1	1

Group: M^cL [$3.G$ $3.G.2$]

Prime: 2

Defect: 7 8

BS	χ_{25}	χ_{26}	χ_{28}	χ_{29}	χ_{30}	χ_{31}	χ_{32}	χ_{35}
	*	*	*					*
χ_{27} *	2	2		-1	-1	1	1	
χ_{33} *	2	2	1	-1	-1	1	1	
χ_{34} *	2	2	2	-1	-1	1	1	
χ_{38} *	2	2	1	-1	-1	1	1	1
χ_{39} |	1	1		-1		1	1	1
χ_{40} |	1	1			-1	1	1	1
χ_{42} *	1	1				1	1	1
χ_{43} |	2	2	1	-1	-1	2	1	1
χ_{44} |	2	2	1	-1	-1	1	2	1
χ_{45} *	1	1	1			1	1	1

Group: $M^cL \left[\begin{array}{cc} G & G.2 \\ 3.G & 3.G.2 \end{array} \right]$

Prime: 3

Defect: $\begin{array}{cc} 6 & 6 \\ 7 & 7 \end{array}$

BS	X1	X2	X3	X7	X8	X9	X11	X18	X19	X20
X4 :	-2	-2	2 ⁰	3 ²	3 ²	4	-2	2	2	-4
X5 |	1	1	-1	-1	-1	-2	1	-1	-1	2
X6 |	1	1	-1	-1	-1	-2	1	-1	-1	2
X10 :		-1 ⁻¹	(±1)	1 ¹	1 ¹	1 ⁰				
X12 :	-1 ⁻¹	-1 ⁻¹	1 ⁰	1 ¹	1 ¹	3 ¹		1	1	-2
X13 :		-2	2	2	2	2		1	1	-2
X15 :	-2	-3 ⁻²	3 ¹	2	2	4	-2	3	3	-5 ⁻²
X21 |	-1	-2	2	2	2	3	-1	2	2	-3
X22 |	-1	-2	2	2	2	3	-1	2	2	-3
X23 |		-1		1	1	1		1	1	-1
X24 |		-1		1	1	1		1	1	-1
X25 *	-1	-1	1	2	1	2	-1	1	1	-2
X26 *	-1	-1	1	1	2	2	-1	1	1	-2
X27 *	1	2	-1	-1	-1	-2	1	-1	-1	2
X28 *	-2	-2	2	2	2	4	-1	2	2	-4
X29 |		-1	1	1	1	1			1	-1
X30 *		-1	1	1	1	1		1		-1
X31 |	1	1	-1	-1	-1	-1	1	-1	-1	2
X32 |	1	1	-1	-1	-1	-1	1	-1	-1	2
X33 *	-1	-1	1	2	2	3	-1	1	1	-2
X34 *		-2	2	2	2	2		1	1	-2
X36 *	-1	-2	2	2	2	3	-2	2	2	-3
X37 *	-1	-1	2	1	1	2	-1	2	2	-3
X38 *						-1				1
X41 *	-1	-2	2	1	1	3	-1	2	2	-3
X42 *		-1		1	1	1		1	1	-1
X43 |		-1		1	1	1		1	1	-1
X44 |		-1		1	1	1		1	1	-1
X45 *	-1	-1	1	1	1	2		1	1	-1

Group: $M^cL [G G.2]$

Prime: 5

Defect: 3 3

BS	X1	X2	X3	X4	X7	X8	X10	X13	X16	X17	X21	X22
X5 |	1	-1	3	2	-1	-1	-2	1	-1	-1	1	1
X6 |	1	-1	3	2	-1	-1	-2	1	-1	-1	1	1
X11 :		2	2	2	-2	-2	-2	2	-1	-1	1	1
X14 :	(±1)	1 ⁰	-1 ⁰		1 ¹	1 ¹	1 ¹					
X15 :	1 ¹		3 ²	2	-1 ⁰	-1 ⁰	-2	2	-1	-1	1	1
X23 |	1	1	2	1			-1	2	-1	-1	1	1
X24 |	1	1	2	1			-1	2	-1	-1	1	1

Group: M^cL [3.G 3.G.2]

Prime: 5

Defect: 3 3

BS	χ_{25}	χ_{26}	χ_{27}	χ_{28}	χ_{29}	χ_{30}	χ_{33}	χ_{34}	χ_{35}	χ_{37}	χ_{39}	χ_{40}
χ_{31}	1	1	2	-1	2	2	3	1	-2	1	-1	-1
χ_{32}	1	1	2	-1	2	2	3	1	-2	1	-1	-1
χ_{36}	*	*	*	*	*	*	*	*	*	*	*	*
χ_{41}	1	1	3	-1	2	2	3	2	-2	1	-1	-1
χ_{42}	-1	-1	-1						1	1		
χ_{43}	1	1	3	-1	2	2	2	2	-1	1	-1	-1
χ_{44}	1	1	3	-1	2	2	2	2	-1	1	-1	-1

Group: He [G G.2]

Prime: 2

Defect: 10 11

BS	χ_1	χ_2	χ_3	χ_4	χ_5	χ_6	χ_7	χ_8	χ_{13}	χ_{20}	χ_{21}
χ_9	-1	-1	-1			-1	1	1			
χ_{10}	-1		-2			-1	1	1			
χ_{11}	-1	-2				-1	1	1			
χ_{17}			-2	2	1				-2	1	1
χ_{18}		-2		1	2				-2	1	1
χ_{19}		-1	-1	2	2				-2	1	1
χ_{23}			-1	1	1				-1	1	1
χ_{24}		-1		1	1				-1	1	1
χ_{25}						1			-1	1	1
χ_{26}	2	-1	-1	3	3	1	-1	-1	-4	2	2
χ_{27}	2	-1	-1	3	3	2	-1	-1	-4	2	2
χ_{28}	1	-1	-1	2	2	1	-1	-1	-3	2	2
χ_{29}	-1	-2	-2	2	2		1	1	-3	2	2
χ_{32}	2			1	1	2	-1	-1	-2	2	2
χ_{33}		-1	-1	1	1	1			-2	2	2

Group: He [G G.2]

Prime: 2

Defect: 3 4

BS	χ_{12}	χ_{14}	χ_{16}
χ_{15}	1	1	
χ_{22}		1	1

Group: He [G G.2]

Prime: 3

Defect: 3 3

BS	χ_1^\pm	χ_6^\pm	χ_9^\pm	χ_{14}^\pm	χ_{15}^\pm	χ_{22}^\pm	χ_{26}^\pm
χ_{25}^\pm	1		1	1	1		
χ_{28}^\pm	2	-1	1	1	2		
χ_{29}^\pm	1	-1		1	1	1	
χ_{30}^\pm				1	1	1	
χ_{31}^\pm				1	1	1	
χ_{33}^\pm	-1		-1			1	1

Group: He [G G.2]

Prime: 3

Defect: 2 2

BS	X2	X3	X7	X8	X10	X11	X12
X13 :	1	1	1	1			1 ¹
X16 :			1	1	1	1	1 ¹

Group: He [G G.2]

Prime: 5

Defect: 2 2

BS	X1	X2	X3	X4	X5	X7	X8
X16 :				-1	-1	-1	-1
X33 :	1 ¹	1	1			1	1

	X14	X15	X17	X18	X28	X30	X31
X16	-1 ⁻¹	1 ⁰	1	1	2	-1 ⁰	-1 ⁰
X33	-1 ⁰	(±1)			-1 ⁰	1 ⁰	1 ⁰

Group: He [G G.2]

Prime: 7

Defect: 3 3

BS	X1	X6	X9	X12	X13	X14	X19	X22	X25	X27
X2	1			2	3		-1	-1	-1	1
X3	1			2	3		-1	-1	-1	1
X4	1	-1		2	4	1	-2	-1	-1	1
X5	1	-1		2	4	1	-2	-1	-1	1
X10		1	-1	-1	-3		1	1	1	-1
X11		1	-1	-1	-3		1	1	1	-1
X16 :	1 ⁰	-2	1 ⁰	5 ³	11 ⁵	1 ¹	-4	-4	-3 ⁻¹	4
X20				2	4		-1	-2	-1	2
X21				2	4		-1	-2	-1	2
X23		-1	1	2	4		-2	-1	-1	2
X24		-1	1	2	4		-2	-1	-1	2
X30 :	2	-4	2	11 ⁶	22	1 ⁰	-8	-7 ⁻³	-6	8
X31 :	2	-4	2	11 ⁶	22	1 ⁰	-8	-7 ⁻³	-6	8

Group: $Ru \begin{bmatrix} G \\ 2.G \end{bmatrix}$

Prime: 2

Defect: $\begin{matrix} 14 \\ 15 \end{matrix}$

BS	X1	X2	X4	X8	X9	X10
X3		1				
X5	-1	1	1			
X6	-2	3	-1	-2	2	
X7	-2	4	-1	-2	2	
X11	-1	4	-2	-2	2	1
X12	-1	4	-2	-2	2	1
X13	-1	4	-2	-2	2	1
X14	-2	4	-1	-2	2	1
X15	3	-9	3	5	-3	
X16	3	-9	3	5	-3	
X17		-1		1		1
X18		-1		1		1
X19		-1		1		1
X20	-1				1	1
X21	-3	6	-2	-3	3	2
X22	-7	15	-5	-8	7	3
X23	-1			1	1	1
X24	-2	3	-1	-1	2	2
X25	-2	6	-3	-4	5	2
X26	-3	6	-3	-3	3	3
X27	-5	11	-4	-6	6	3
X28	-2	2	-1		2	2
X29	-2	3	-1	-1	2	3
X30	-4	6	-2	-3	4	3
X31	-4	6	-2	-3	4	3
X33	-6	12	-4	-6	6	4
X37		-1	1			
X38		-1	1			
X39	1	1	-1	-1	1	
X40	1	1	-1	-1	1	
X41	-2	3	-1	-2	2	
X42	-2	3	-1	-2	2	
X43	-2	5	-1	-2	2	
X44	-2	5	-1	-2	2	
X45	-2	6	-2	-3	2	1
X46	-2	6	-2	-3	2	1
X47	-2	5	-1	-3	2	1
X48	-2	5	-1	-3	2	1
X51	-4	9	-3	-5	4	1
X52	-4	9	-3	-5	4	1
X53	3	-9	3	5	-3	
X54	1	-4	2	3	-1	
X55	1	-4	2	3	-1	
X56	-2	2				2
X57		-2		2		2
X58	-4	6	-2	-3	4	3
X59	-4	6	-2	-3	4	3
X61	-10	20	-8	-10	12	8

Group: $Ru \left[\begin{matrix} G \\ 2.G \end{matrix} \right]$

Prime: 2

Defect: $\begin{matrix} 2 \\ 3 \end{matrix}$

BS	χ_{32}	χ_{34}	χ_{35}
χ_{36}	-1	1	1
χ_{49}	-1		1
χ_{50}	-1	1	
χ_{60}		1	1

Group: Ru

Prime: 3

Defect: 3

BS	χ_1	χ_4	χ_9	χ_{15}	χ_{20}	χ_{21}	χ_{22}	χ_{25}	χ_{32}
χ_{16}				1					
χ_{23}	1		-1	1		1			
χ_{26}	1	-1	-1		1	1			
χ_{33}				1	-1	1	1		
χ_{36}		1	1	1		-1	-1	1	1

Group: $Ru [2.G]$

Prime: 3

Defect: 3

BS	χ_{37}	χ_{38}	χ_{39}	χ_{45}	χ_{46}	χ_{49}	χ_{50}	χ_{51}	χ_{52}
χ_{40}			1						
χ_{53}	-1	-1	-2			1	1	1	1
χ_{54}	-1		-2	1	1	1	1	1	
χ_{55}		-1	-2	1	1	1	1		1
χ_{56}	-1	-1	-3	1	1	1	1	1	1

Group: Ru

Prime: 5

Defect: 3

BS	χ_1	χ_2	χ_3	χ_4	χ_5	χ_6	χ_7	χ_{10}	χ_{14}
χ_{22}		1	1				-1	1	-1
χ_{27}	1					-1	-1		
χ_{29}	1				-1		-2	1	-1
χ_{30}	1	-1	-1		-1	-1	-1		
χ_{31}	1	-1	-1		-1	-1	-1		
χ_{33}	1	-2	-2	1	-1				1
χ_{36}	2	-1	-1	1	-1	-1	-2	1	

	χ_{15}	χ_{16}	χ_{17}	χ_{18}	χ_{19}	χ_{21}	χ_{24}	χ_{34}	χ_{35}
χ_{22}	1	1							
χ_{27}	1	1				-1	1		
χ_{29}	1	1	-1	-1	-1	-1		1	1
χ_{30}	1	1	-1	-1	-1	-1		1	1
χ_{31}	1	1	-1	-1	-1	-1		1	1
χ_{33}	-1	-1					-1	1	1
χ_{36}	1	1	-1	-1	-1	-1		1	1

Group: $Ru [2.G]$

Prime: 5

Defect: 3

BS	χ_{37}	χ_{38}	χ_{39}	χ_{40}	χ_{41}	χ_{42}	χ_{43}	χ_{44}	χ_{47}
χ_{45}	-1	-1	-1	-1			1	1	-1
χ_{46}	-1	-1	-1	-1			1	1	-1
χ_{53}	-1	-1	-1	-1	1	1	1	1	-1
χ_{54}		-1			1			1	
χ_{55}	-1					1	1		
χ_{60}	-2	-2	-1	-1	1	1	2	2	-1
χ_{61}	-3	-3	-1	-1	2	2	2	2	-2

	χ_{48}	χ_{49}	χ_{50}	χ_{51}	χ_{52}	χ_{56}	χ_{57}	χ_{58}	χ_{59}
χ_{45}	-1	1	1						
χ_{46}	-1	1	1						
χ_{53}	-1	1	1	1	1				
χ_{54}				1	1		-1	1	
χ_{55}				1	1		-1		1
χ_{60}	-1	1	1	2	2	1	-1	1	1
χ_{61}	-2	2	2	3	3	1	-1	1	1

Group: $Suz \begin{bmatrix} G & G.2 \\ 2.G & 2.G.2 \end{bmatrix}$

Prime: 2

Defect: $\begin{matrix} 3 & 4 \\ 4 & 5 \end{matrix}$

BS	χ_{27}	χ_{29}	χ_{37}
χ_{35}	1	1	
χ_{43}		1	1
χ_{62}		1	
χ_{63}		1	
χ_{67}	-1		1
χ_{76}	1	1	1

Group: $Suz \begin{bmatrix} G & G.2 \\ 2.G & 2.G.2 \end{bmatrix}$

Prime: 2

Defect: $\begin{matrix} 13 & 14 \\ 14 & 15 \end{matrix}$

BS	X1	X3	X4	X6	X7	X8	X10	X12	X13	X14	X25	X26	X31	X32
X2 :	-1	1						-2	-1	-1	-1	-1	1	1
X5 :	1		1					2	1	1	1	1	-1	-1
X9 :	-2	1	-1	-1	1	1		-2	-1	-1	-1	-1	1	1
X11 :		1	1	-1				1						
X15 :			1		-1	-1	1	1						
X16 :	-1		-2		1	1	1	-2	-1	-1	-1	-1	1	1
X17 :							1	1						
X18 :							1	1						
X19 :							1	1						
X20 :	-2	1	-1	-1				-3	-1	-1	-2	-2	2	2
X21 :					-1		1	1	1	1				
X22 :						-1	1	1	1	1				
X23 :	-1		-1				1	-1			-1	-1	1	1
X24 :		1	1		1	1		1	-3	-3	1	1		
X28 :					-1	-1	1	1	2	2				
X30 :			-1	1	-1	-1	2	1	2	2				
X33 :					-1	-1	2	2	2	2				
X34 :		-1	-1		-2	-2	2	1	2	2	-1	-1	1	1
X36 :			1		-1	-1		1	1	1	1	1		
X38 :	-2	1		-1			2	-1	-2	-2	-1	-1	2	2
X39 :					-1	-1		1	2	2	1	1		
X40 :					-1	-1	2	2	-1	-1			1	1
X41 :		1	1		-1	-1		2	2	2	1	1		
X42 :	-1	1			-1	-1	2	1	1	1			1	1
X44 :								2	1	1	1	1	-1	-1
X45 :		1												
X46 :		1												
X47 :	-1		-1	-1	1			-2	-1	-1	-1	-1	1	1
X48 :	-1		-1	-1		1		-2	-1	-1	-1	-1	1	1
X49 :	2	-1	1		-1	-1		3	1	1	1	1	-1	-1
X50 :	-1	1		-1		1		-1	-1	-1	-1	-1	1	1
X51 :	-1	1		-1	1			-1	-1	-1	-1	-1	1	1
X52 :					-1	-1		1	1	1				
X53 :					-1	-1		1	1	1				
X54 :			1		-1	-1		1	1	1				
X55 :			1		-1	-1		1	1	1				
X56 :			1						-1	-1	1			
X57 :			1						-1	-1		1		
X58 :					-1	-1	1	1	1	2				
X59 :					-1	-1	1	1	2	1				
X60 :	-1	1	1	-1					-1	-1				1
X61 :	-1	1	1	-1					-1	-1			1	
X64 :							2	2	1	1				
X65 :					-1	-1			3	3				
X66 :					-1	-1	2	2	2	2				
X68 :	-2		-2		-1	-1	2	-2	1	1	-2	-2	2	2
X69 :							-2		1	1	1	1		
X70 :		1	1					1			1	1		
X71 :		1	1					1			1	1		
X72 :	-2	1	-1				2	-1	-2	-2	-1	-1	2	2
X73 :					-1	-1	2	2	-1	-1			1	1
X74 :					-1	-1	2	2	2	2	1	1		
X75 :					-2	-2	2	2	2	2			1	1

Group: $Suz \left[\begin{array}{cc} 3.G & 3.G.2 \\ 6.G & 6.G.2 \end{array} \right]$

Prime: 2

Defect: $\begin{array}{cc} 13 & 14 \\ 14 & 15 \end{array}$

BS	X77	X78	X79	X80	X83	X84	X87	X88	X90	X92	X97	X99	X101	X112
	*	*	*	*				*	*	*	*	*	*	*
X81 *	-1	2		-2	-1	-1	1	1						
X82 *	-1	2	1	-2	-1	-1	1	1						
X85 *	-1	1		-1	-1	-1	1	1						
X86 *	-1				-1	-1	1	1						
X89 *		2	1	-1	1	1				-1	-2	2		
X91 *	-1	2	1	-1					-1	-1		1		
X93 *	1	-1	-1	1						1				
X94 *			-1		-1	-1	1	1		1				
X95 *	1	-1	-1						1		-1	1		
X96 *	1	-2	-1	1					1	1				
X98 *	1				1	1	-1	-1		-1	-1	1	1	
X100 *										1	1			
X102 *										1	1	-1	1	
X103 *		1	1		1	1	-1	-1	-1	1	1		1	
X104 *	-1	1							-1	1	2			
X105 *	2	-3		3	2	2	-2	-2			1	-1	2	
X106 *	1				1	1	-1	-1				1	1	
X107 *	2	-1	1	2	3	3	-2	-2		-1	-1	1	2	
X108 *	-1	2	1		1	1	-1	-1	-2	1	2		1	
X109 *				1	1	1	-1	-1	-1	1	2		1	
X110 *	-1	2	1		1	1			-1	1	2		1	
X111 *		-1		1	1	1	-1	-1			1	-1		1
X113 *	-1	1	1		1	1	-1	-1	-1		2	-1		1
X114 *		1	1		1	1	-1	-1			1	-1	1	1
X115 *	-1	1												
X116 *		-2	-1	1										
X117 *	1	-1	-1	1										
X118 *	-1	1			-1	-1	1	1						
X119 *		-1	-1		-1	-1				1	1	-1		
X120 *	1	-2	-1	2	1	1	-1	-1		1	1	-1		
X121 *		1		-1							-1	1		
X122 *		1		-1							-1	1		
X123 *		-1		1						1	1	-1		
X124 *	1		-1								-1	1		
X125 *		-1		1						1	1	-1		
X126 *										1				
X127 *					-1	-1	1	1		1				
X128 *	1	-1	1	2	2	2	-2	-2	-1	-1			1	
X129 *	-1	2	1	-1	1				-1		1			
X130 *	-1	2	1	-1		1			-1		1			
X131 *	-1	2	1	-1					-1		1	-1	1	
X132 *	-1	1						1	-1	1	1			
X133 *	-1	1					1		-1	1	1			
X134 *		-1							1	-1	-1		-1	1
X135 *	1	-2	-1	1					1	1	1	-1	1	1
X136 *	1				1	1			1		-1	1	1	1
X137 *	2	-1	1	2	3	3	-2	-2		-1	-1	1	2	
X138 *												-1		1
X139 *	2	-2		2	2	2	-2	-2					2	
X140 *	-1	2	1	-1					-1		1	1	1	
X141 *				1	1	1	-1	-1	-1	1	2		1	
X142 *	-1	1	1		1	1	-1	-1	-1		2	-1	1	1
X143 *		1	1	1	2	2	-2	-2	-1	1	3		1	1

Group: *Suz* $\left[\begin{array}{cc} G & G.2 \\ 3.G & 3.G.2 \end{array} \right]$

Prime: 3

Defect: 2 2
3 3

BS	X15 ..	X30 ..	X31	X32	X42 ..
X43 :	1 ¹	2	-1	-1	1 ¹
X87 |		-1	1		
X88 *		-1		1	
X103 *	1	1			
X108 *	1	1	-1	-1	1
X114 *		1			1

Group: *Suz* [3.G 3.G.2]

Prime: 3

Defect: 2 2

BS	X16 ..	X36 ..
X41 :	1 ¹	1 ⁰
X90 *	1	
X110 *		1
X112 *	1	1

Group: $Suz \left[\begin{array}{cc} G & G.2 \\ 3.G & 3.G.2 \end{array} \right]$

Prime: 3

Defect: $\begin{array}{cc} 7 & 7 \\ 8 & 8 \end{array}$

BS	χ_1	χ_3	χ_5	χ_6	χ_{10}	χ_{11}	χ_{12}	χ_{17}	χ_{23}
χ_2 :	..	-1^0	-2	1^0	-2	1^1	..	..	..
χ_4 :	-2	..	-3^{-1}	4	-3^{-2}	2	3^1	-2	-2
χ_7 :	1	-1	..	-1	1	-1	..	1	1
χ_8 :	1	-1	..	-1	1	-1	..	1	1
χ_9 :	-1^0	2^2	3^1	..	1^1	..	..	..	..
χ_{13} :	-1	1	-1	2	-1	1	2	-1	-1
χ_{14} :	-1	1	-1	2	-1	1	2	-1	-1
χ_{18} :	..	..	..	..	-1	..	-1	-1	..
χ_{19} :	..	..	..	..	-1	..	-1	-1	..
χ_{20} :	..	..	1^0	..	1^1	..	1^1	1^1	..
χ_{21} :	..	..	..	..	-1	..	-1	..	..
χ_{22} :	..	..	..	..	-1	..	-1	..	..
χ_{25} :	..	..	..	..	-1	..	..	..	..
χ_{26} :	..	..	..	..	-1	..	..	..	..
χ_{29} :	..	1^1	-1^{-1}	..	-1^0	1^0	-3^{-1}	1^1	..
χ_{33} :	..	..	1^0	-1^0	2^2	-1^{-1}	(± 1)	2^2	1^0
χ_{34} :	1^0	-1^{-1}	-1^{-1}	-1^0	-1^0	-1^{-1}	-2^0	-1^0	..
χ_{35} :	..	2	-2	1^1	-2	-2^0	..	(± 1)	1^0
χ_{36} :	..	-1^0	1^1	-1^{-1}	2^0	-1^0	(∓ 1)	2^0	1^1
χ_{37} :	-1^{-1}	1^0	1^0	-1^0	(± 1)	-1^{-1}	-4^{-1}	1^1	1^0
χ_{39} :	..	1^1	2^0	-1^0	(± 1)	-1^{-1}	-2^0	-1^0	1^0
χ_{77}^*	..	-1	-2	2	-2	1	2	-1	-1
χ_{78}^*	1	..	..	-1	..	..	-2	1	1
χ_{79}^*	..	..	-1	1	-1	1	-1	..	..
χ_{80}^*	..	1	1	..	..	..	..	..	..
χ_{81}^*	-1	1	..	2	-1	1	1	-1	-1
χ_{82}^*	..	-1	-2	1	-1	..	1	..	..
χ_{83}^*	..	-1	..	..	..	..	1	..	..
χ_{84}^*	..	-1	..	..	..	..	1	..	..
χ_{85}^*	1	-1	..	-1	..	..	-1	1	1
χ_{86}^*	..	..	1	..	..	..	1	..	..
χ_{89}^*	-1	..	..	1	..	..	1	..	..
χ_{91}^*	..	..	..	..	1	..	-1	1	..
χ_{92}^*	-1	1	1	..	-1	..	-2	-1	..
χ_{93}^*	1	-1	1	-2	2	-1	-1	2	1
χ_{94}^*	-1	1	-1	2	-1	2	2	-1	-1
χ_{95}^*	1	..	3	-2	2	-2	-1	..	1
χ_{96}^*	..	1	1	..	1	..	1	1	..
χ_{97}^*	1	-1	-1	..	..	..	1	-1	..
χ_{98}^*	..	..	-1	..	-1	..	-1	..	..
χ_{99}^*	..	..	..	..	-1	..	..	..	..
χ_{100}^*	..	..	1	-1	2	-1	..	1	1
χ_{101}^*	..	..	1	-1	2	-1	..	1	1
χ_{102}^*	..	..	..	..	..	..	-1	1	..
χ_{104}^*	-1	1	-1	1	-2	1	-1	-1	-1
χ_{105}^*	1	-1	-1	-1	-1	-1	-2	-1	..
χ_{106}^*	..	..	..	-1	-1	-1	-3	..	1
χ_{107}^*	-1	..	..	1	..	..	1	..	..
χ_{109}^*	..	..	2	-2	1	-1	-3	1	1
χ_{111}^*	..	1	2	-1	..	-1	-2	-1	1
χ_{113}^*	..	..	1	-1	1	-1	-1	2	1

	λ_{24}	λ_{27}	λ_{28}	λ_{40}

X2		-1^0	1^0	
X4	-1^0	-1^{-1}	-2	2
X7	2			-1
X8	2			-1
X9		1^1	-1^{-1}	
X13	-1		-1	1
X14	-1		-1	1
X18			1	
X19			1	
X20	1^0		-1^0	
X21			1	
X22			1	
X25			1	
X26			1	
X29	-2		3^2	
X33	1^0		-1^0	
X34	1^0		2^2	
X35	1^0		1^1	
X36	2^2		-1^{-1}	
X37	-1^{-1}		3^2	
X39	1^0	1^1	1^1	
X77		-1	-1	1
X78			2	-1
X79	-1		1	
X80				
X81	-1		-1	1
X82	1	-1		
X83	1		-1	
X84	1		-1	
X85	1		1	-1
X86	1		-1	
X89	1		-1	
X91				
X92	-1		2	
X93	2			-1
X94	-1		-1	1
X95	2	1		-1
X96		1	-1	
X97	1			
X98	-1		2	
X99			1	
X100	1		-1	
X101	1		-1	
X102			1	
X104	-1		1	1
X105	1		2	
X106			2	
X107			-1	1
X109			2	
X111	1	1	1	
X113	1		1	

Group: $Suz \left[\begin{array}{cc} 2.G & 2.G.2 \\ 6.G & 6.G.2 \end{array} \right]$

Prime: 3

Defect: $\begin{array}{cc} 7 & 7 \\ 8 & 8 \end{array}$

BS	X44	X49	X64	X65	X66	X67	X68	X69	X72	X74
X45	-1			1	-2	1	-3	1	-1	2
X46	-1			1	-2	1	-3	1	-1	2
X47					-1		-1			1
X48					-1		-1			1
X50	-1	-1	2	1	-1		-4	-1	-2	4
X51	-1	-1	2	1	-1		-4	-1	-2	4
X52			2	1 ¹	1 ⁰		-2	-1 ⁻¹	-2	2
X53			3 ²		1 ⁰		-2	-1 ⁻¹	-2	2
X54	1		-2	-2		-1	4	-1	4	-3
X55	1		-2	-2		-1	4	-1	4	-3
X56	1		-2	-2		-1	4	-1	4	-3
X57	1		-2	-2		-1	4	-1	4	-3
X58			-1	-1	-1		1		1	
X59			-1	-1	-1		1		1	
X62	-1		1	1	-1	1	-3		-2	3
X63	-1		1	1	-1	1	-3		-2	3
X70	-1	-1	2	1	-1		-3	-1	-2	4
X71	-1	-1	2	1	-1		-3	-1	-2	4
X73	-1 ⁰		1 ¹	1 ¹	-1 ⁻¹		-2	-1 ⁻¹	-2	4
X75	-1 ⁰		-1 ⁰		-1 ⁻¹					2
X76	2	1 ¹	-2	-2	2		6		3 ²	-4
X115*				1	-1	1	-2	1	-1	1
X116*	1			-1		-1	1	-1	1	
X117*	-1				-2		-2			2
X118*	-2	-1	3	2	-2	1	-7		-4	6
X119*		1		1		1	-1	1	-1	
X120*			3	1	1		-3	-1	-3	3
X121	1			-1	1		2		1	-2
X122*	1			-1	1		2		1	-2
X123*			-1		-1				1	
X124*			-1		-1				1	
X125*				-1	-1				1	
X126*	1		-1	-1			2		2	-2
X127*	-1	-1	1	1	-1		-3	-1	-1	3
X128*	1	1	-1	-1	1		3		2	-3
X129	1		-2	-2		-1	4	-1	4	-3
X130	1		-2	-2		-1	4	-1	4	-3
X131*			1		1			-1		
X134*			1	1	1		-1	1	-1	
X135*	-1		1	1	-1		-2		-2	3
X136*	1		-1	-1	1	-1	3		3	-3
X137*	1		-1	-1	1	-1	4	-1	2	-2
X138*	-1	-1	2	1	-1		-3	-1	-2	4
X139*	1	1	-3	-2	1		5	1	3	-4
X140*			1					-1		1
X141*			1		1		-1	-1	-1	2
X142*			-2	-1	-1		2		2	
X143*	-1		1	1	-1	1	-2		-2	4

Group: *Suz* [*G* *G.2*]

Prime: 5

Defect: 2 2

BS	χ_1^\mp	χ_2^\mp	χ_3^\mp	χ_5^\pm	χ_6^\pm	χ_{11}^\mp	χ_{16}^\pm	χ_{23}^\pm	χ_{29}^\pm	χ_{34}^\mp	χ_{35}^\pm	χ_{42}^\mp
χ_{24}^\pm			-1		1	-1	1	1				
χ_{30}^\pm					-1	1			1			
χ_{41}^\pm	-1			-1	-1				1	1		
χ_{43}^\pm	-1	1		-1			1	1	1		-1	1

Group: *Suz* [*2.G* *2.G.2*]

Prime: 5

Defect: 2 2

BS	χ_{45}	χ_{46}	χ_{47}	χ_{48}	χ_{50}	χ_{51}	χ_{60}	χ_{61}	χ_{62}	χ_{63}	χ_{70}	χ_{71}
χ_{49} :			-1	-1			-1	-1	-1	-1	1	1
χ_{68} :	1	1	-1	-1					-1	-1	1	1
χ_{72} :	-1	-1	1	1	1	1			1	1		
χ_{76} :			1	1	1	1	1	1	1	1		

Group: *Suz* [*3.G* *3.G.2*]

Prime: 5

Defect: 2 2

BS	χ_{77}	χ_{78}	χ_{79}	χ_{81}	χ_{85}	χ_{87}	χ_{88}	χ_{90}	χ_{93}	χ_{94}	χ_{105}	χ_{107}
	*	*	*	*	*	→	*	*	*	*	*	*
χ_{95}^*	-1	1	1	-1	1	1	1	1				
χ_{103}^*	1	-1		1	-1	-1	-1		-1			1
χ_{104}^*			1					1	-1	-1		1
χ_{112}^*		-1			-1	-1	-1		-1	-1	1	1

Group: *Suz* [*6.G* *6.G.2*]

Prime: 5

Defect: 2 2

BS	χ_{115}	χ_{117}	χ_{118}	χ_{119}	χ_{121}	χ_{122}	χ_{123}	χ_{127}	χ_{128}	χ_{132}	χ_{133}	χ_{137}
	*	*	*	*	→	*	*	*	*	→	*	*
χ_{124}^*		-1		-1						-1	-1	1
χ_{125}^*		-1	-1							-1	-1	1
χ_{138}^*	1			1	-1	-1	1		1	1	1	
χ_{139}^*	1		1		-1	-1	1	1		1	1	

Group: $O'N$ [G $G.2$]

Prime: 2

Defect: 9 10

BS	χ_1	χ_{11}	χ_{12}	χ_{15}	χ_{18}
χ_5 ↓	1	1	1		-1
χ_6 ↓	1	1	1		-1
χ_8 ↓	-1	-1			1
χ_9 ↓	-1	-1			1
χ_{13} ↓			1		
χ_{14} ↓			1		
χ_{16} ↓	-2	-2			2
χ_{17} ↓	-2	-2			2
χ_{19} :	-1		1	1	
χ_{20} :	-1		1		1
χ_{21} :		1	2		
χ_{22} :		1	2		
χ_{25} :	-1	-1	1		2
χ_{29} :	-2	-1	2		2
χ_{30} :	-2	-1	2		2

Group: $O'N$ [G $G.2$]

Prime: 2

Defect: 3 4

BS	χ_2	χ_3	χ_4
χ_7 :		1	1
χ_{10} :	1	1	1

Group: $O'N$ [$3.G$ $3.G.2$]

Prime: 2

Defect: 9 10

BS	χ_{35}	χ_{38}	χ_{41}	χ_{42}	χ_{45}
	*	*	*	*	*
χ_{31} ↓	-1	-1	1		
χ_{32} ↓	-1	-1	1		
χ_{33} ↓			-1	-1	1
χ_{34} ↓			-1	-1	1
χ_{36} ↓	1				
χ_{37} ↓	1				
χ_{39} *		1			
χ_{40} *	1	1			
χ_{43} *		1	1		
χ_{44} *	-1		1	1	
χ_{46} *	-1	1	1	1	
χ_{47} *	-1	1	1	1	
χ_{48} ↓	-2		2	1	
χ_{49} ↓	-2		2	1	
χ_{50} *	-1		1		1

Group: $O'N \begin{bmatrix} G & G.2 \\ 3.G & 3.G.2 \end{bmatrix}$

Prime: 3

Defect: $\begin{matrix} 4 & 4 \\ 5 & 5 \end{matrix}$

BS	χ_1	χ_3	χ_4	χ_5	χ_6	χ_8	χ_9	χ_{10}	χ_{16}	χ_{17}	χ_{18}	χ_{20}	χ_{29}	χ_{30}
χ_7 :	..	1	1	1	1	-2	-2	..	2	2	..	..	..	..
χ_{19} :	1^1	1	1	2	2	-1	-1	-1^0	2	2	..	2	-1^0	-1^0
χ_{23} :	..	-2	-2	-1	-1	3	3	-2	-2	-2	-2	..	..	..
χ_{24} :	..	-2	-2	-1	-1	3	3	-2	-2	-2	-1^0	-3^{-2}	2	2
χ_{31} :	..	-1	-1	-1	-1	2	2	-1	-1	-2	..	-3^{-2}	2	2
χ_{32} ↓	..	-1	-1	-1	-1	2	2	-1	-2	-1	..	-2	1	1
χ_{33} ↓	..	1	1	..	..	-2	-1	1	1	1	..	-2	1	1
χ_{34} *	..	1	1	..	..	-1	-2	1	1	1	..	2	-1	-1
χ_{38} *	..	1	1	1	1	-1	-1	..	1	1	1	2	-1	-1
χ_{39} *	..	1	1	1	1	-1	-1	..	1	1	..	1	1	-1
χ_{40} *	1	1	1	1	1	-1	-1	..	1	1	..	1	-1	..
χ_{41} *	1	..	..	1	1	..	..	-1	1	1	-1	..	..	..
χ_{44} *	..	-1	-1	-1	-1	2	2	..	-2	-2	..	-1	1	1
χ_{45} *	1	..	..	1	..	..	..
χ_{48} ↓	..	-1	-1	..	-1	1	1	-1	-1	-1	..	-1	1	1
χ_{49} ↓	..	-1	-1	-1	..	1	1	-1	-1	-1	..	-1	1	1
χ_{54} ↓	-1	..	..	1	1	-1	..	..	..	-1	1	1
χ_{55} ↓	..	-1	..	..	..	1	1	-1	..	..	..	-1	-1	1

Group: $O'N \begin{bmatrix} G & G.2 \\ 3.G & 3.G.2 \end{bmatrix}$

Prime: 3

Defect: $\begin{matrix} 2 & 2 \\ 3 & 3 \end{matrix}$

BS	χ_2	χ_{11}	χ_{12}	χ_{13}	χ_{14}
..
χ_{15} :	-1^{-1}	-2	1^1	1	1
χ_{35} *	..	-1	1	..	..
χ_{36} ↓	..	-1	..	..	1
χ_{37} ↓	..	-1	..	1	..
χ_{42} *	1	1	..	..	..
χ_{43} *	-1	-1	1	1	1

Group: $O'N [G G.2]$

Prime: 7

Defect: 3 3

BS	χ_1	χ_2	χ_3	χ_4	χ_5	χ_6	χ_7	χ_8	χ_9	χ_{10}
χ_{11} :	..	..	1	1	-1	-1	..	1	1	..
χ_{12} :	-1^0	-3^{-2}	1	1	-2	-2	2	1	1	..
χ_{25} :	(± 1)	-2	1	1	-2	-2	2	1	1	-1^{-1}
χ_{29} :	..	..	..	..	1	1	-1^{-1}	..	..	-2^{-2}
χ_{30} :	..	..	..	..	1	1	-1^{-1}	..	..	..

	χ_{13}	χ_{14}	χ_{16}	χ_{17}	χ_{21}	χ_{22}	χ_{26}	χ_{27}	χ_{28}
χ_{11}	-1	-1	1	1	..	..	..	..	..
χ_{12}	-1	-1	2	2	-2	-2	1^1	1^1	1^1
χ_{25}	-1	-1	1	1	-1^{-1}	-1^{-1}	1^1	1^1	1^1
χ_{29}	..	..	-1	-1	1^0	1^1	..	..	..
χ_{30}	..	..	-1	-1	1^0	1^1	..	..	..

Group: $O'N$ [3.G 3.G.2]

Prime: 7

Defect: 3 3

BS	χ_{31}	χ_{32}	χ_{33}	χ_{34}	χ_{35}	χ_{36}	χ_{37}	χ_{38}	χ_{40}	χ_{42}
χ_{39}^*								1		
χ_{43}^*	1	1	1	1	1					-1
χ_{45}^*	1	1			-1	-1	-1	2	-1	-3
χ_{47}^*			1	1				-1		
χ_{50}^*	-1	-1	1	1	2	1	1	-3	2	4

	χ_{44}	χ_{46}	χ_{48}	χ_{49}	χ_{51}	χ_{52}	χ_{53}	χ_{54}	χ_{55}
χ_{39}									
χ_{43}			-1	-1				1	1
χ_{45}			-1	-1	1	1	1		
χ_{47}	-1	-1						1	1
χ_{50}	-1		2	2	-1	-1	-1		

Group: C_{03}

Prime: 2

Defect: 10

BS	χ_1	χ_2	χ_8	χ_9	χ_{10}	χ_{14}	χ_{16}	χ_{17}	χ_{26}	χ_{35}
χ_3			-1	1						
χ_4			-1	1						
χ_5	-1	1	-1	1						
χ_{11}					1					
χ_{12}	-1		-2	2	1					
χ_{13}				1	1					
χ_{15}			1			1				
χ_{20}		-1	-1	1	1		1	1		
χ_{21}	1		1	-1		1	1	1		
χ_{22}			1		1	1	1	1		
χ_{23}			1		1	1	1	1		
χ_{24}			1		1	1	1	1		
χ_{25}				1	1	1	1	1		
χ_{27}	1		1		1	2	2	2		
χ_{28}		-1	-1	1	1		1	1	1	
χ_{30}	1	-1		1	2	2	3	3		
χ_{31}			1		1	1	2	2	1	
χ_{36}			-1	1		1				1
χ_{37}	-1		-2	2	1				1	1
χ_{40}	-1		-1	2	1	1	1	1	1	1
χ_{41}	-1		-1	2	2	1	1	1	1	1
χ_{42}	-1		-1	3	2	1	1	1	1	1

Group: C_{03}

Prime: 2

Defect: 3

BS	χ_6	χ_7	χ_{29}	χ_{32}	χ_{38}
χ_{18}	1		-1	1	
χ_{19}		1	-1	1	
χ_{39}			-1	1	1

Group: C_{03}

Prime: 3

Defect: 7

BS	X1	X2	X3	X4	X6	X7	X9	X10	X11	X13
X5		1		-2				-1	-1	
X8	1	-1	1	2	1	1		1	1	
X12	1	-2	1	3	1	1	1	1	1	
X15		1		-2	-1	-1		-1	-1	-1
X23		1	-1	-1			-1			
X24	1	-2	1	4	1	1		1	1	1
X25										1
X26				2	1	1		1	1	1
X28		1	-1	-1			-1			
X30		1	-1		1	1	-1	1	1	
X33	-1	2	-2	-1	1	1	-1	1	1	1
X34	1			2	1	1	-1	1	1	1
X35		1	-1	1	1	1	-1	1	1	1
X37	1			1	1	1	-1	1	1	1
X38		2	-2	1	2	2	-2	2	2	2
X39	1	1	-1	1	2	2	-1	2	2	1
X40		2	-2	1	3	3	-2	2	2	2
X41		3	-3		2	2	-2	2	2	1
X42		2	-2		2	2	-2	2	2	1

	X14	X16	X17	X18	X19	X20	X21	X22	X27	X29
X5	-2	-1	-1	1	1					
X8	2	1	1	-1	-1					
X12	2	1	1	-1	-1					
X15	-3	-1	-1	1	1	1				
X23	-1			1	1					
X24	4	2	2	-2	-2			1		
X25	1	1	1							
X26	3	1	1	-1	-1		1			
X28	-1			1	1			1		
X30	1			1	1		1			
X33				1	1	-1	1			1
X34	2	2	2	-1	-1			1		1
X35	2	1	1					1		1
X37	1	2	2					1	1	1
X38	2	2	2	1	1	-1	1	1		1
X39	1	1	1	1	1		1		1	1
X40	4	1	1	1	1	-1	2	1		1
X41	1	1	1	2	2		2			1
X42		1	1	2	2	-1	1		1	1

Group: C_{03}

Prime: 5

Defect: 3

BS	X1	X2	X3	X4	X6	X7	X8	X9	X13	X14
X10	-1				-1	-1	-1			1
X11	-1				-1	-1	-1			1
X15	1		-1	-1	1	1		1	1	
X33		1	1							1
X34				1			-1			
X38	1	-1	-1	-1	1	1	1			-1
X40	-1	1	1	1			-2	-1		1
X42	-1	1	1	1	-1	-1	-2	-1	-1	2

	X18	X19	X21	X25	X27	X30	X32	X36
X10								
X11								
X15								
X33	1	1				1		
X34	1	1		1	1			
X38	-1	-1	1	-1			1	1
X40	2	2	1		1	1		
X42	2	2		1	1	1		

Group: C_{02}

Prime: 2

Defect: 18

BS	X1	X3	X5	X8	X9	X10	X11	X12	X13	X21	X24	X43
X2	1	1	-1			-1	-1	1	1			
X4		2	-1			-1	-1	1	1			
X6		1	1									
X7		2	1									
X14	1			1	1	-1	-1	1	1			
X15		-2	1	1		2	2	-1	-1			
X16	1	-2	1	1	1	1	1					
X17	1	-2	1	1	1	1	1					
X18	1	-1	1	1	1	1	1					
X19	2	-2	2	2	1	1	1					
X20	2	-2	1	2	2			1	1			
X22	1				1			1	1	1		
X23	1				1			1	1	1		
X25	2	-3	-1	2	1	-2	-2	2	2			1
X26										1		1
X27		1			1					1		1
X28	4	-6	2	4	3	2	2	1	1			1
X29		2	-1			-2	-2	1	1	2		1
X30	2	-2		2	3			1	1	1		1
X31		2			1	-1	-1	1		2		1
X32		2			1	-1	-1		1	2		1
X33	3	-4	2	3	2	1	1	1	1	1		1
X34	1	1	1	1	1	-1	-1	1	1	2		1
X35	2	-2	1	2	2			1	1	2		1
X36	3	-1	2	2	3	1	1	1	1	2		1
X37		2			2					2		2
X38	2	-2	1	2	2			1	1	2		2
X39	2	-2	1	2	2			1	1	2		2
X40	3	-3	2	3	3	1	1	1	1	2		2
X41	2			2	2	-2	-2	2	2	3		2
X42	4	-4	2	4	4	1	1	2	2	2		2
X44	1				1			1	1	1		1
X45	2	-4	1	2	1	1	1	1	1			1
X46	2	-4	2	2	2	3	3					1
X47	2	-4	2	2	2	3	3					1
X48	2	-4	2	2	2	3	3					1
X49	3	-4	2	3	3	2	2	1	1	1		2
X50	6	-8	4	7	6	3	3	2	2	3		4
X51	4	-4	2	4	5	1	1	2	2	4		4
X52	6	-8	4	6	6	4	4	2	2	3		4
X53	8	-6	3	8	8	-1	-1	5	5	7		6
X55	5	-4	2	5	5	-1	-1	4	4	5		5
X56	8	-10	5	8	8	4	4	3	3	4		5
X57	7	-8	4	7	7	2	2	3	3	5		5
X58	5	-3	3	5	7	1	1	3	3	6		5
X59	7	-7	1	7	6	-3	-3	6	6	5		6
X60	8	-8	4	7	8	2	2	4	4	6		5

Group: C_{02}

Prime: 3

Defect: 6

BS	X1	X2	X3	X4	X5	X6	X7	X9	X10	X11	X14	X16
X8		-1			1		1					
X12	-1	1				-1					1	-1
X13	-1	1				-1					1	-1
X15	-1		-1	-1	1	1		1			1	
X20	1	-1	-1		1	1	1		1	1	-1	
X25	-1	1	-1	-1	1	1					1	
X26			-2	-1	1	2		1	1	1		1
X30					-1	1	-1	1				1
X31	1	-1	-1				1		1	1	-1	
X32	1	-1	-1				1		1	1	-1	
X35	1	-1				1			1	1	-1	1
X39	-1	1			-1	1	-2	1	-1	-1	1	1
X42	-1	1				-1					1	
X45	-1	1	1		-1		-1	-1	-1	-1	1	
X46			-2	-1	2		2		1	1		
X48												1
X50		-1	-2	-1	3		3		1	1	-1	-1
X52	1	-1	-1		2	-1	3	-1	1	1	-2	-1
X53					1	-2	2	-1			-1	-1
X54		-1	-1		2	-1	3		1	1	-1	-1
X55	-1	1	-1	-1	2		1				1	
X56					1	-2	2	-1			-1	-2
X58	1	-1	-1		1	2	1	1	1	1	-2	
X59	-1	1	-1	-1	3	-2	3	-2				-2

	X17	X18	X21	X24	X28	X29	X34	X36	X41	X47	X49
X8											
X12		-1	1								
X13		-1	1								
X15											
X20		1									
X25	-1	-1	1	1							
X26	-1	1		1							
X30		1	-1			1					
X31		1			-1		-1			1	
X32		1			-1		-1			1	
X35		1			1						
X39			-1		1	1					
X42	-1	-1	1		-1	1			1		
X45		-1			1	1	1				
X46	-1		2	1	-2		-1		1	1	
X48	-1					1			1		
X50			2	1	-2	-2	-1			2	1
X52	1		2		-2	-2	-2	1	1	2	1
X53		-1	2		-2	-1	-1		1	2	1
X54			2		-2	-1	-1		1	2	1
X55	-1	-1	2	1	-1				1	1	1
X56		-1	2		-2	-1			1	2	1
X58		1	1		-1	-1	-1		1	2	1
X59		-2	3	1	-2	-2	-1	1	1	2	1

Group: C_2

Prime: 5

Defect: 3

BS	χ_1	χ_2	χ_3	χ_5	χ_6	χ_7	χ_9	χ_{16}	χ_{19}	χ_{25}
χ_{12}			1	-1			1		-1	
χ_{13}			1	-1			1		-1	
χ_{31}				2			-2	1		
χ_{32}				2			-2	1		
χ_{33}	-1	1	-1	1		-1	-1	1	1	
χ_{36}		1	-1	-1		-1	1	-1		1
χ_{45}				1	-1	-1		1		-1
χ_{54}		-1		1			-1		-1	
χ_{55}	1	-1		-1	-1			-1	-1	1
χ_{58}			-1	1		-1	-1			
χ_{59}			-1	2	1		-2			

	χ_{27}	χ_{28}	χ_{30}	χ_{37}	χ_{40}	χ_{51}
χ_{12}	-1		1			
χ_{13}	-1		1			
χ_{31}		-1			1	
χ_{32}		-1			1	
χ_{33}	1					
χ_{36}		1				
χ_{45}	2			1		
χ_{54}		-1		1	1	1
χ_{55}			1	1		1
χ_{58}	1		-1	1	1	1
χ_{59}		-1	-1	1	2	1

Group: $F_{122} \begin{bmatrix} G & G.2 \\ 2.G & 2.G.2 \end{bmatrix}$

Prime: 2

Defect: 17 18
18 19

BS	X1	X2	X3	X4	X5	X6	X10	X13	X14	X22	X23	X25	X40	X41
X6 :			-1	2	1									
X7 :	-1	1	-1	2	1									
X9 :		-1	-1	2	1	1								
X11 :				2			1							
X12 :	-2		-6	8	6		1	-2	6	2	2	2	-1	-1
X15 :			-2	3	2			1						
X16 :			-1	1	1				1					
X17 :			1	-2	-1		1		1					
X18 :	-2	1	-5	6	5	-1	1	-1	6	2	2	2	-1	-1
X19 :							1	1						
X20 :			-1	2	1		1		1					
X21 :	-2	1	-6	7	6	-2	1	-1	7	2	2	2	-1	-1
X24 :	-2	1	-4	4	4	-1	2	-1	7	2	2	2	-1	-1
X26 :	1		4	-5	-4		-1	1	-4	-1	-1	-2	1	1
X27 :	-2	1	-4	4	4	-2	2	-2	7	2	2	3	-1	-1
X28 :	-2	1	-6	7	6	-2	1	-1	7	2	2	3	-1	-1
X29 :			-2	2	1		1	-1	2	1	1			
X30 :	1		3	-3	-3			1	-3	-1	-1	-2	1	1
X31 :	1		5	-6	-5		-1		-5	-1	-1	-1	1	1
X32 :	1		5	-6	-5		-1		-5	-1	-1	-1	1	1
X33 :	-1	1	1	-2	-1		1		2	1	1			
X34 :	-1	1	1	-2	-1		1		2	1	1			
X35 :	1		4	-5	-4		-1		-4	-1	-1	-1	1	1
X36 :	-1	1	-1	1	1		1	1	2	1	1			
X37 :	1		3	-3	-3			1	-3	-1	-1	-1	1	1
X38 :	-2	2		-2					2	1	1	1		
X39 :	1		2	-3	-3				-2	-1	-1	-1	1	1
X42 :	-3	2	-5	5	5	-2	1	-3	9	3	3	3	-1	-1
X43 :	-1	1		-1		-1	1	-1	3	1	1	1		
X44 :	-1	1		-1		-1	1	-1	3	1	1	1		
X45 :	4	-1	12	-14	-12	2	-3	3	-15	-4	-4	-5	3	3
X46 :	-3	2	-5	5	5	-2	2	-1	9	3	3	3	-1	-1
X47 :	4	-1	12	-15	-12	2	-2	3	-13	-4	-4	-5	3	3
X48 :		2	4	-6	-4				-2			-1	1	1
X49 :	2		8	-10	-8	-1	-2		-7	-2	-2	-2	2	2
X50 :		1	4	-6	-4	-1	-1	-1	-2				1	1
X51 :	1		5	-6	-5		-1		-5	-1	-1	-1	2	1
X52 :	1		5	-6	-5		-1		-5	-1	-1	-1	1	2
X53 :	3		11	-13	-11	1	-3	2	-13	-3	-3	-4	3	3
X54 :	2	2	12	-16	-12		-2	2	-10	-3	-3	-4	3	3
X55 :	-1	2	5	-7	-4	-1			-1	1	1		1	1
X57 :	2	2	12	-16	-12	-1	-2		-9	-2	-2	-3	3	3
X58 :		2	6	-10	-7	-1	-1	-1	-3			-1	2	2
X59 :		2	7	-10	-7	-2	-1	-2	-3				2	2
X60 :	3	1	17	-24	-17		-5	-2	-14	-3	-3	-4	4	4
X61 :	1	2	11	-15	-11	-2	-2	-1	-7	-1	-1	-2	3	3
X62 :	1	2	11	-15	-11	-2	-3	-3	-7	-1	-1	-1	3	3
X65 :	4	2	20	-26	-20	-2	-4		-16	-4	-4	-5	5	5

	X1	X2	X3	X4	X5	X8	X10	X13	X14	X22	X23	X25	X40	X41
X66 :	1	-1	1											
X67 :		1	-1	1	1									
X68 :		1	-1	1	1									
X69 :	-1		-3	3	3			-1	3	1	1	1		-1
X70 :	-1		-3	3	3			-1	3	1	1	1	-1	
X71 :	-1		-3	3	3			-1	3	1	1	1		-1
X72 :	-1		-3	3	3			-1	3	1	1	1	-1	
X73 :			-1	2	1	1								
X74 :			-1	2	1	1								
X75 :			2	-2	-1		1							
X76 :			-1	2	1			1						
X77 :			-1	2	1			1						
X78 :	-1		-5	5	4	-1	2	-2	7	2	2	2	-1	-1
X79 :	-1		-5	5	4	-1	2	-2	7	2	2	2	-1	-1
X80 :	-1	1	1	-2	-1		1		2					
X81 :	4	-2	8	-8	-8	2	-2	2	-12	-3	-3	-4	2	2
X82 :	-2	1	-6	9	6	-2	2	-1	7	2	2	2	-1	-1
X83 :	-2	1	-6	9	6	-2	2	-1	7	2	2	2	-1	-1
X84 :	3	-1	7	-8	-8	2	-2	2	-10	-3	-3	-4	2	2
X85 :	-2		-5	6	5	-1	1	-2	6	2	2	3	-1	-1
X86 :	-2		-5	6	5	-1	1	-2	6	2	2	3	-1	-1
X87 :	-2	1	-6	7	6	-2	1	-1	7	2	2	3	-1	-1
X88 :	-2	1	-6	7	6	-2	1	-1	7	2	2	3	-1	-1
X89 :	-1	1					1	1	1	1	1			
X90 :	-1	1					1	1	1	1	1			
X91 :	-1	2	1	-3	-1	-1	1		3	1	1			
X92 :	-1	2	1	-3	-1	-1	1		3	1	1			
X93 :	1		4	-5	-4				-4	-1	-1	-1	1	1
X94 :	1		4	-5	-4				-4	-1	-1	-1	1	1
X95 :	-3	2	-5	5	5	-1	2	-2	9	3	3	3	-1	-1
X96 :	-3	2	-5	5	5	-1	2	-2	9	3	3	3	-1	-1
X97 :	2		6	-8	-6		-1	2	-6	-2	-2	-3	2	2
X98 :	2		6	-8	-6		-1	2	-6	-2	-2	-3	2	2
X99 :	2		6	-8	-7		-1		-6	-2	-2	-2	2	2
X100 :	3		12	-15	-12	1	-3	1	-12	-3	-3	-4	3	3
X101 :	3		12	-15	-12	1	-3	1	-12	-3	-3	-4	3	3
X102 :	-1	2	4	-7	-4	-1	-1	-1	-1	1	1		1	1
X103 :	-1	2	4	-7	-4	-1	-1	-1	-1	1	1		1	1
X105 :	2	1	11	-14	-11		-2	1	-10	-3	-2	-3	3	3
X106 :	2	1	11	-14	-11		-2	1	-10	-2	-3	-3	3	3
X107 :	1	2	11	-15	-11	-2	-3	-3	-7	-1	-1	-2	3	3
X108 :	1	2	11	-15	-11	-2	-3	-3	-7	-1	-1	-2	3	3
X109 :	3	2	17	-23	-17	-2	-4	-1	-13	-3	-3	-3	4	4
X110 :	3	2	17	-23	-17	-2	-4	-1	-13	-3	-3	-3	4	4
X111 :	1	2	11	-15	-11	-1	-1		-7	-1	-1	-2	3	3
X112 :	1	2	11	-15	-11	-1	-1		-7	-1	-1	-2	3	3

Group: F_{122} $\begin{bmatrix} 3.G & 3.G.2 \\ 6.G & 6.G.2 \end{bmatrix}$

Prime: 2

Defect: 17 18
18 19

BS	X115	X116	X117	X118	X119	X121	X126	X128	X132	X133	X145
	*	*			*	*	*	*			*
X120 *	1				1						
X122 *	-1	2				1					
X123 *			1	1		1					
X124 *		1			1	1					
X125 *	-1	2			1	1					
X127 *		1			1		1				
X129 *	-1	1	-1	-1	1			1			
X130 *	-1	1			1	1		1			
X131 *	2	-3	1	1	-1	-1	-1	-1	1	1	
X134 *	2	-3			-2	-2		-1	1	1	
X135 *	2	-3			-1	-2		-1	1	1	
X136 *	2	-3			-1	-2		-1	1	1	
X137 *	2	-3			-1	-1		-1	1	1	
X138 *	2	-1						-1	1	1	
X139 *	1	-2	-1	-1	-2	-3			1	1	
X140 *	4	-8	-1	-1	-4	-5	-1	-2	2	2	
X141 *	1	-2			-1	-1			1	1	
X142 *	1	-2			-1	-1			1	1	
X143 *	1	-2			-1	-1	1		1	1	
X144 *	3	-4			-2	-3		-2	2	2	
X146 *		1	1	1		1					1
X147 *	-1	2			1	1		1			1
X148 *	2	-3			-2	-3		-1	1	1	1
X149 *	2	-3			-2	-3		-1	1	1	1
X150 *	2	-2			-1	-2		-1	1	1	1
X151 *	2	-2			-1	-2		-1	1	1	1
X152 *	2	-2			-1	-2		-1	1	1	1
X153 *	2	-2			-1	-2		-1	1	1	1
X154 *	1	-1			-1	-1			1	1	1
X155 *	3	-4			-2	-3		-1	1	2	1
X156 *	3	-4			-2	-3		-1	2	1	1
X157 *	4	-6			-3	-4		-2	2	2	1
X158 *	3	-4			-2	-3		-2	2	2	1
X159 *	4	-5			-2	-4	1	-2	2	2	1
X160 *	3	-5			-3	-4	-1	-1	2	2	1
X161 *	4	-6			-3	-4		-1	2	2	1
X162 *	4	-6			-3	-4		-1	2	2	1
X163 *	3	-4			-2	-3		-2	2	2	2
X164 *	6	-7			-4	-6		-3	3	3	2

	X115	X116	X117	X118	X119	X121	X126	X126	X132	X133	X145
X165 ↓	-1	1	-1	-1	1						
X166 ↓	-1	1	-1	-1	1						
X167 ↓		2			1	1					
X168 ↓		2			1	1					
X169 ↓			1	1	1	1					
X170 ↓			1	1	1	1					
X171 ↓		-1			-1		-1	1			
X172 ↓		-1			-1		-1	1			
X173 *						1	1				
X174 ↓	2	-3			-1	-2	-1	-1	1	1	
X175 ↓	2	-3			-1	-2	-1	-1	1	1	
X176 ↓		-1			-1	-1			1		
X177 ↓		-1			-1	-1				1	
X178 ↓		-1			-1	-1			1		
X179 ↓		-1			-1	-1				1	
X180 ↓		1			1		1	1			
X181 ↓		1			1		1	1			
X182 ↓	2	-3			-1	-1		-1	1	1	
X183 ↓	2	-3			-1	-1		-1	1	1	
X184 ↓	4	-7	-1	-1	-3	-5		-1	2	2	
X185 ↓	4	-7	-1	-1	-3	-5		-1	2	2	
X186 ↓	2	-3			-2	-2		-1	2	2	
X187 ↓	2	-3			-2	-2		-1	2	2	
X188 ↓	-1	2			1	1		1			1
X189 ↓	-1	2			1	1		1			1
X190 ↓	4	-6			-3	-4		-2	2	2	1
X191 ↓	4	-6			-3	-4		-2	2	2	1
X192 ↓	4	-5	1		-2	-3		-2	2	2	1
X193 ↓	4	-5		1	-2	-3		-2	2	2	1
X194 *	4	-6			-4	-6		-2	2	2	2
X195 ↓	3	-4			-2	-3		-1	2	2	2
X196 ↓	3	-4			-2	-3		-1	2	2	2
X197 ↓	6	-7			-4	-6		-3	3	3	2
X198 ↓	6	-7			-4	-6		-3	3	3	2

Group: $F_{i22} \begin{bmatrix} G & G.2 \\ 3.G & 3.G.2 \end{bmatrix}$

Prime: 3

Defect: $\begin{matrix} 9 & 9 \\ 10 & 10 \end{matrix}$

BS	χ_1	χ_2	χ_3	χ_4	χ_6	χ_7	χ_8	χ_{11}	χ_{12}	χ_{13}
χ_5	(∓ 1)	(± 1)	1^1	1^1						
χ_9	-1^{-1}	-1^0	2	1^1		-1^0	-2			
χ_{10}		-1^0	1^0	1^1	1^1	(± 1)	-1^0			
χ_{14}								-1^0	1^0	
χ_{15}	(± 1)	1^{-1}	-1^0	-1^{-1}	-1^0	(∓ 1)	1^0	(± 1)	1^0	
χ_{16}		-1^0	-1^{-1}			1^1	1^1	1^0	-1^0	
χ_{17}	(± 1)	(∓ 1)		1^0	-1^0			1^1		1^1
χ_{19}	(∓ 1)	(± 2)	1^0		1^0	(± 1)	-1^0	-1^{-2}	(± 1)	
χ_{20}		1^0	-1^0		(± 1)		1^0	1^1		
χ_{25}	(∓ 1)	1^2			-1^{-1}	(± 1)	1^1	(∓ 1)	(± 1)	1^1
χ_{26}	(∓ 1)	-1^1	1^1	1^0	1^0		-1^{-1}	(∓ 1)	-1^0	
χ_{27}		1^1	-2	-2	-1^0	1^1	2		1^1	
χ_{28}	(± 1)	1^0	-1^{-1}	-1^{-1}	-1^0	(± 1)	1^1		1^1	1^1
χ_{30}	(∓ 1)	2^4	-2^{-2}	-2	(∓ 1)	1^2	1^1	(∓ 2)	1^2	
χ_{31}			-1	-1		1	1			
χ_{32}			-1	-1		1	1			
χ_{35}	(± 1)	2^0	1^1	(∓ 1)	-1^0	-1^{-1}	-1^{-1}	-1^0	2	1^1
χ_{37}	(∓ 1)	1^2				(± 1)		-1^{-1}	1^1	
χ_{39}		(± 1)	(∓ 1)	-1^0	1^1	1^2	-1^0	-1^{-1}	(± 1)	
χ_{42}		(± 1)	1^0	1^0		(± 1)	-1^0	(∓ 1)	(± 1)	1^1
χ_{43}	1	3	-3	-3	-1	1	3	-1	2	
χ_{44}	1	3	-3	-3	-1	1	3	-1	2	
χ_{45}	1^1	3^2	-3^{-2}	-2^{-2}	-2	1^1	3^2	(∓ 1)	2^2	1^1
χ_{46}	-1^1	-2^{-3}	1^1	1^0	(± 1)	(∓ 1)	-1^{-1}	1^2	-2^{-2}	
χ_{47}	-1^0	-3^{-2}	3^2	3^1	1^1	-1^{-1}	-3^{-2}	1^1	-2	
χ_{50}	-1^2	(∓ 2)	3^2	3^0	(± 1)	-2^{-2}	-3^{-2}	-1^0	1^1	1^1
χ_{53}			-1^0	-1^{-1}		1^0	1^0			
χ_{54}	2	6	-8	-8	-2	4	8	-2	4	
χ_{55}	1^0	4^3	-3^{-1}	-3^{-2}	-2	1^1	4	-1^{-1}	3^2	1^1
χ_{56}	(∓ 1)	(± 2)	1^1	1^0	-1^{-1}	-1^0		(∓ 1)	(± 1)	1^1
χ_{59}	(∓ 2)	-2^2	1^1	2	1^0	(± 1)	-1^{-1}	1^{-1}	-2^0	
χ_{60}	(± 1)	2	-2	-2^{-2}	-1^0	1^1	2		1^1	1^1
χ_{61}	(∓ 1)	-1^0	(± 1)		1^0	1^0	-1^{-1}		-1^{-1}	
χ_{62}	1^{-1}	3^4	-4	-4	-1^{-1}	2^2	4	-1^{-2}	2^2	
χ_{63}		3^3	-1^{-1}	-1^{-1}	-1^{-1}	(± 1)	1^1	-1^{-2}	3^3	1^1
χ_{64}	(∓ 1)	-1^0	(± 1)			1^0	1^0	1^1	-1^{-1}	

	X18	X21	X22	X23	X24	X33	X34	X36	X40	X41	X51	X52
X5												
X9					2	1	1	2			-1	-1
X10					2	1	1	2			-1	-1
X14					2	1	1	2			-1	-1
X15												
X16		-2	1	1								
X17												
X19		1 ¹										
X20	1 ¹				-2	-1	-1	-2			1	1
X25	1 ¹	1 ¹			-2	-1	-1	-2			1	1
X26	1 ¹	1 ¹			1 ⁰							
X27	1 ¹	-1 ⁰	1	1								
X28	1 ¹				1 ¹							
X30	1 ¹	(±1)	1	1	-2	-1	-1	-2			1	1
X31	1	-1	1	1	1							
X32	1	-1	1	1	1							
X35	(±1)	3 ²	-1	-1	-1 ⁰			1 ¹				
X37	(±1)	1 ¹						1 ¹				
X39	1 ¹	1 ¹	1	1	1 ¹							
X42	(±1)	1 ¹			(±1)			1 ¹				
X43	1	1			-2	-2	-2	-2	1	1	1	1
X44	1	1			-2	-2	-2	-2	1	1	1	1
X45	1 ¹	1 ¹			-2 ⁰	-2	-2	-2	1	1	1	1
X46		-2	1	1	2	2	2	2	-1	-1		
X47	-1 ⁰	-1 ⁰			3 ²	3	3	3 ²	-1	-1	-1	-1
X50	-1 ⁰	2 ²	-1	-1	3 ²	3	3	3 ²	-1	-1	-1	-1
X53	1 ¹	-1 ⁰	1	1	1 ¹	1	1					
X54	4		1	1	-2	-3	-3	-4	1	1	2	2
X55	2 ²	1 ¹			-1 ⁰	-2	-2	-1 ⁰	1	1	1	1
X56	(±1)	(±1)			1 ¹	1	1	1 ¹				
X59	(±1)	-1 ¹			1 ¹	2	2	1 ¹				
X60	2 ²	(±1)	1	1	(±1)			-1 ⁰			1	1
X61		-1 ⁰	1	1	1 ¹			1 ¹				
X62	2 ²	(±1)	1	1		-1	-1	-1 ⁰	1	1	1	1
X63	1 ¹	1 ¹			1 ¹			2	1	1		
X64	1 ¹	-1 ⁰	1	1		1	1	-1 ⁰			1	1

	X1	X2	X3	X4	X6	X7	X8	X11	X12	X13
X115 *		-1	1							
X116 *					-1		1			
X117 *		-1						1	-1	
X118 *		-1						1	-1	
X119 *		-1	1	1	1		-2			
X120 *	-1		1	1		-1	-1	1		
X121 *		-1	1	1			-1			
X122 *		1			-1					1
X123 *		-1	2	2	1	-1	-2		-1	
X124 *		1	-1				1		1	
X125 *	1	1	-2	-1		1	2			
X126 *		1			-1		1		1	1
X127 *		1			-1		1	1		1
X128 *	-1		3	3		-2	-3	-1	1	1
X129 *			-1	-1		1	1			
X130 *		1	-1	-2		1		-1	1	
X132 *										
X133 *										
X134 *			1	1						1
X135 *		1	-1	-1	-1	1	1		1	
X136 *	1	2	-2	-2		1	2	-1	2	
X137 *	1	2	-2	-2		1	2		1	
X138 *		1							1	
X140 *		2	-3	-3		2	2		1	
X141 *			1		1		-1	-1		
X142 *		-1		1				1	-1	
X143 *	1	4	-4	-4	-2	1	5	-1	3	
X146 *	-1	-2	3	3		-2	-3	1	-1	1
X147 *			-1	-1		1	1		-1	
X148 *		2	-1	-1	-1		1	-1	2	1
X149 *		2	-1	-1	-1		1	-1	2	1
X150 *		1	2	1		-1	-2	-1	1	1
X151 *		-1	1	1	1		-1		-1	
X152 *		-2	-1		1	2	1	1	-2	
X153 *	1	4	-4	-5	-1	2	4	-2	3	
X154 *	1	4	-5	-5	-2	2	5	-1	3	1
X155 *	1	3	-3	-2	-2	1	3		2	1
X156 *	1	3	-3	-2	-2	1	3		2	1
X157 *		1	-1	-1		1	1			
X159 *			1	1						
X161 *	-1	-3	2	2	1		-2	1	-2	
X162 *	-1	-3	3	3	1	-1	-3	1	-2	
X164 *	1	3	-4	-4	-1	2	4	-1	2	

	X18	X21	X22	X23	X24	X33	X34	X36	X40	X41	X51	X52
X115												
X116												
X117		-1	1									
X118		-1		1								
X119					2	1	1	2			-1	-1
X120												
X121					2	1	1	2			-1	-1
X122												
X123		1										
X124												
X125	1				-2	-1	-1	-2			1	1
X126												
X127	1				-2	-1	-1	-2			1	1
X128	-1	2	-1	-1	1	1	1	3			-1	-1
X129	1				1							
X130			1	1								
X132					1	1	1		-1			
X133					1	1	1			-1		
X134	1	1			1							
X135	1		1	1								
X136		1			-1	-1	-1		1	1		
X137	1	1			-3	-2	-2	-2	1	1	1	1
X138								1				
X140	2		1	1	-1	-1	-1	-2			1	1
X141		1			1			1				
X142		-1				1	1					
X143	2				-1	-2	-2	-2	1	1	1	1
X146	-1				3	3	3	3	-1	-1	-1	-1
X147	1		1	1	-1			-2			1	1
X148	1	1			1	1		1				
X149	1	1			1		1	1				
X150		3	-1	-1		1	1	1				
X151					1	1	1	1				
X152	1	-3	2	2	2	1	1					
X153	3	1	1	1		-2	-2	-2	1	1	1	1
X154	3		1	1	-1	-2	-2	-1	1	1	1	1
X155	1	1			-2	-2	-2	-2	1	1	2	1
X156	1	1			-2	-2	-2	-2	1	1	1	2
X157	1		1	1	-1			-1			1	1
X159					1	1	1	2				
X161		-2	1	1	2	3	3	1	-1	-1		
X162	-1	-1			3	3	3	3			-1	-1
X164	2	-1	1	1				-1	1	1	1	1

Group: F_{122} $\begin{bmatrix} 2.G & 2.G.2 \\ 6.G & 6.G.2 \end{bmatrix}$

Prime: 3

Defect: $\begin{matrix} 9 & 9 \\ 10 & 10 \end{matrix}$

BS	χ_{67}	χ_{68}	χ_{69}	χ_{70}	χ_{73}	χ_{74}	χ_{76}	χ_{77}	χ_{82}	χ_{83}
χ_{66} :	1	1			-1	-1	-3	-3	-2	-2
χ_{71} |	-1			-1		1				
χ_{72} |		-1	-1		1					
χ_{75} :					1	1				
χ_{78} :	2	2			-4	-4	-6	-6	-2	-2
χ_{79} :	2	2			-4	-4	-6	-6	-2	-2
χ_{80} :	-1	-1			2	2	4	4	2	2
χ_{81} :	2	2			-3	-3	-6	-6	-2	-2
χ_{84} :	1	1			-2	-2	-2	-2		
χ_{89} |		-1			1	1	1	2	1	
χ_{90} |	-1				1	1	2	1		1
χ_{91} |	1	1			-1	-1	-1	-1		
χ_{92} |	1	1			-1	-1	-1	-1		
χ_{93} |	-1	-1			2	2	3	3	1	1
χ_{94} |	-1	-1			2	2	3	3	1	1
χ_{95} |	-1	-2			3	3	4	4	1	1
χ_{96} |	-2	-1			3	3	4	4	1	1
χ_{97} |		-1			1	1	2	2	1	1
χ_{98} |	-1				1	1	2	2	1	1
χ_{99} :							1	1	1	1
χ_{100} |	-1	-2			3	3	4	5	2	1
χ_{101} |	-2	-1			3	3	5	4	1	2
χ_{102} |		-1			2	1	3	2	1	1
χ_{103} |	-1				1	2	2	3	1	1
χ_{104} :					1	1			-1	-1
χ_{109} |	-1	-1			3	3	5	5	2	2
χ_{110} |	-1	-1			3	3	5	5	2	2
χ_{111} |		-1			1	1	1	1		
χ_{112} |	-1				1	1	1	1		
χ_{113} |	-1	-2			3	3	3	3	1	
χ_{114} |	-2	-1			3	3	3	3		1

	X85	X86	X87	X88	X105	X106	X107	X108
X66	1	1	-1	-1	-1	-1	1	1
X71								
X72								
X75								
X78	2	2	-1	-1	-1	-1	1	1
X79	2	2	-1	-1	-1	-1	1	1
X80	-1	-1	1	1	1	1	-1	-1
X81	2	2	-1	-1	-1	-1	1	1
X84	1	1						
X89		-1	1					
X90	-1			1				
X91	1		1					
X92		1		1				
X93	-1	-1	1					
X94	-1	-1		1				
X95	-1	-2	2					
X96	-2	-1		2				
X97		-1	2					
X98	-1			2				
X99			1	1				
X100	-1	-2	2	1				
X101	-2	-1	1	2				
X102		-1	3					
X103	-1			3				
X104			1	1	-1	-1	1	1
X109	-1	-2	3	3				
X110	-2	-1	3	3				
X111		-1	2	-1			1	
X112	-1		-1	2				1
X113	-1	-1	1				1	
X114	-1	-1		1				1

	X67	X68	X69	X70	X73	X74	X76	X77	X82	X83
X165 ↓		-1			1	1	3	3	2	2
X166 ↓	-1				1	1	3	3	2	2
X167 ↓					1		1			
X168 ↓						1		1		
X169 ↓	1	1			-2	-2	-4	-3	-1	-2
X170 ↓	1	1			-2	-2	-3	-4	-2	-1
X171 ↓					-1	-1	-1	-1		
X172 ↓					-1	-1	-1	-1		
X173 *					1	1	1	1		
X174 ↓	1				-1	-1	-1		1	
X175 ↓		1			-1	-1		-1		1
X176 ↓	1			1		-1				1
X177 ↓		1	1		-1					
X178 ↓			-1							
X179 ↓				-1						
X180 ↓	-1	-2			3	3	3	3	1	
X181 ↓	-2	-1			3	3	3	3		1
X182 ↓	-1	-1			2	2	3	2	1	1
X183 ↓	-1	-1			2	2	2	3	1	1
X184 ↓	-1	-2			2	2	3	3	1	1
X185 ↓	-2	-1			2	2	3	3	1	1
X186 ↓		-1			2	2	3	3	1	1
X187 ↓	-1				2	2	3	3	1	1
X188 ↓		-1			1	1	2	2	1	1
X189 ↓	-1				1	1	2	2	1	1
X190 ↓	-1	-2			4	3	5	5	2	2
X191 ↓	-2	-1			3	4	5	5	2	2
X192 ↓	2	2			-3	-3	-6	-6	-2	-2
X193 ↓	2	2			-3	-3	-6	-6	-2	-2
X194 *	-1	-1			3	3	5	5	2	2
X195 ↓		-1			1	1	2	2	1	
X196 ↓	-1				1	1	2	2		1
X197 ↓	-2	-2			4	4	5	5	1	1
X198 ↓	-2	-2			4	4	5	5	1	1

	X85	X86	X87	X88	X105	X106	X107	X108
X165	-1	-1	1	1	1	1	-1	-1
X166	-1	-1	1	1	1	1	-1	-1
X167								
X168								
X169	1	1	-1	-1	-1	-1	1	1
X170	1	1	-1	-1	-1	-1	1	1
X171	1							
X172		1						
X173								
X174	1							
X175		1						
X176			1					
X177				1				
X178				1				
X179			1					
X180	-1	-1	1					
X181	-1	-1		1				
X182	-1	-1	1					
X183	-1	-1		1				
X184	-1	-1		-1	1	1		-1
X185	-1	-1	-1		1	1	-1	
X186		-2	3					
X187	-2			3				
X188		-1	3					
X189	-1			3				
X190	-1	-2	3	1				
X191	-2	-1	1	3				
X192	2	2	-1	-1	-1		1	1
X193	2	2	-1	-1		-1	1	1
X194	-1	-1	3	3				
X195		-1	2				1	
X196	-1			2				1
X197	-2	-2	2	1			1	
X198	-2	-2	1	2				1

Group: F_{122} [G $G.2$]

Prime: 5

Defect: 2 2

BS	X_1^\pm	X_2^\pm	X_3^\pm	X_4^\pm	X_6^\pm	X_{11}^\pm	X_{14}^\pm	X_{20}^\pm
X_{60}^\pm				1	-1	-1	1	-1
X_{63}^\pm					-1	-1		-1
X_{64}^\pm		-1	-1			-1	1	-1
X_{65}^\pm	-1	1		1	-1	-1		

	X_{30}^\pm	X_{37}^\pm	X_{38}^\pm	X_{49}^\pm	X_{50}^\pm	X_{56}^\pm	X_{57}^\pm	X_{58}^\pm
X_{60}	-1	1		1	1			
X_{63}	-1		1	1		1	-1	1
X_{64}	-1		1		1	1		
X_{65}		1	-1		1		1	

Group: F_{122} [$2.G$ $2.G.2$]

Prime: 5

Defect: 2 2

BS	X_{66}	X_{69}	X_{70}	X_{73}	X_{74}	X_{75}	X_{76}	X_{77}
X_{71}	1		-1		-1	-1	1	1
X_{72}	1	-1		-1		-1	1	1
X_{113}					-1	-1		1
X_{114}				-1		-1	1	

	X_{81}	X_{82}	X_{83}	X_{85}	X_{86}	X_{102}	X_{103}	X_{104}
X_{71}	-1	-1		1				
X_{72}	-1		-1		1			
X_{113}	-1	-1	-1		1	1		1
X_{114}	-1	-1	-1	1			1	1

Group: F_{122} [$3.G$ $3.G.2$]

Prime: 5

Defect: 2 2

BS	X_{115}	X_{116}	X_{117}	X_{118}	X_{120}	X_{121}	X_{124}	X_{127}
X_{145}^*	*	*	*	*	*	*	*	*
X_{157}^*		-1	1	1	1	-1		1
X_{160}^*			-1	-1	-1		1	-1
X_{163}^*	-1	1	-1	-1	-1			-1

	X_{128}	X_{137}	X_{138}	X_{139}	X_{140}	X_{148}	X_{149}	X_{158}
X_{145}	-1	1			1			
X_{157}	1	-1	-1	1	-1	1	1	
X_{160}	1		1	-1				1
X_{163}	2	-2	-1		-1	1	1	1

Group: F_{22} [6.G 6.G.2]

Prime: 5

Defect: 2 2

BS	X165	X166	X167	X168	X173	X176	X177	X178	X179
X190 ↓	-1	-1	-1	-1	-2	2	2	2	2
X191 ↓	-1	-1	-1	-1	-2	2	2	2	2
X195 ↓			-1	-1	-2	1	1	1	1
X196 ↓			-1	-1	-2	1	1	1	1

	X180	X181	X182	X183	X192	X193	X194
X190	1	1	-3	-3	-2	-2	4
X191	1	1	-3	-3	-2	-2	4
X195	1	1	-1	-1			2
X196	1	1	-1	-1			2

Group: HN [G G.2]

Prime: 2

Defect: 4 5

BS	X17	X37	X44
X34 :	-1	1	
X35 ↓	-1	1	
X36 ↓	-1	1	
X45 :	1		1
X49 :		1	1

Group: $HN [G G.2]$

Prime: 2

Defect: 14 15

BS	x_1	x_2	x_3	x_4	x_5	x_6	x_7	x_8	x_9	x_{10}	x_{11}	x_{12}	x_{13}	x_{14}
X_4 :	-1	1	1	-1	1									
X_5 :	6	-5	-5	5	2	2								
X_6 :	1		-1	1										
X_7 :	1	-1		1										
X_{19} :	6	-5	-5	5	2	2								
X_{21} :					-1	-1					1			
X_{22} :					-1	-1					1			
X_{23} :	-2	2	2	-2	-2	-2					1	1		
X_{24} :	2	-2	-2	1	2	1					-1	-1		
X_{27} :	3	-3	-3	2	1	1					-1	-1		1
X_{28} :	3	-3	-3	2	1	1					-1	-1	1	
X_{29} :	4	-3	-3	3	2	2					-1	-1		
X_{30} :	1	-1	-2		1	1					-1	-1	1	
X_{31} :	1	-2	-1		1	1					-1	-1		1
X_{32} :	2	-2	-2	1									1	1
X_{33} :	-2	1	1	-3							-1	-1		
X_{38} :	4	-4	-4	2	2	2					-1	-1		
X_{40} :	1	-1	-1	1	1									
X_{41} :	2	-2	-2		2	2					-2	-2		
X_{42} :	4	-5	-5	2	2	2					-3	-3	1	1
X_{43} :	4	-4	-4	2	2	1					-1	-1	1	1
X_{47} :	5	-5	-5	3	2	1					-1	-1	1	1
X_{48} :	3	-4	-4	1	2	1					-2	-2	1	1
X_{50} :	5	-6	-6	2	4	2					-3	-3	1	1
X_{51} :	3	-4	-4	1	2	1					-2	-2	1	1
X_{52} :	3	-4	-4	1	2	1					-2	-2	1	1
X_{53} :	4	-5	-5	1	2	1					-2	-2	2	2
X_{54} :	6	-7	-7	2	3	2					-3	-3	2	2

	X15	X16	X18	X20	X25	X26	X39
X4							
X5	-1	-1	-2	-2	1	1	
X6							
X7							
X19	-1	-1	-1	-2	1	1	
X21				1			
X22				1			
X23	1	1	1				
X24			-1	-1	1	1	
X27			-1	-1	1	1	
X28			-1	-1	1	1	
X29			-1		1	1	
X30			-1		1	1	
X31			-1		1	1	
X32			-1		1	1	
X33	1	1			1	1	
X38			-1	-2	2	2	
X40	-1	-1	-1	2			1
X41	1	1	-1		2	2	
X42			-2	-2	3	3	
X43	-1	-1	-2		1	1	1
X47			-2	-1	2	2	1
X48			-2		2	2	1
X50			-3	-1	3	3	1
X51			-2	-1	3	3	1
X52			-2	-1	3	3	1
X53			-3		3	3	1
X54			-3	-2	4	4	1

Group: $HN [G G.2]$

Prime: 3

Defect: 6 6

BS	χ_1	χ_2	χ_3	χ_4	χ_5	χ_9	χ_{11}	χ_{12}	χ_{13}	χ_{14}
χ_6	1	-2	-2	-1	-1	2	1	2	-1	-2
χ_7	1	-2	-2	-1	-1	2	2	1	-2	-1
χ_{20}	-1^0	2	2	1^1		-1^{-1}	-1	-1	2	2
χ_{27}		-1			-1	1	1	1		
χ_{28}			-1		-1	1	1	1		
χ_{34}	-1^{-1}	2	2		1^0	-2	-1	-1	1	1
χ_{40}		1	1	1^1					1	1
χ_{41}	(∓ 1)	1	1	(∓ 1)	-1^{-1}				1	1
χ_{42}	-2	3	3	2		-2	-2	-2	3	3
χ_{45}	1^0	1	1	(∓ 1)						
χ_{46}	(∓ 1)	1	1	(∓ 1)	-1^{-1}				1	1
χ_{48}	(∓ 1)	1	1	-1^{-1}	1^0	-1^0				
χ_{54}	(∓ 1)	2	2	(∓ 1)	1^0	-1^0			1	1

	χ_{17}	χ_{18}	χ_{21}	χ_{22}	χ_{24}	χ_{25}	χ_{26}	χ_{29}	χ_{35}	χ_{36}
χ_6			2	2		1	1		-1	-1
χ_7			2	2		1	1		-1	-1
χ_{20}		1^1	-2	-2		-1	-1		1	1
χ_{27}		1	1							
χ_{28}		1		1						
χ_{34}			-1	-1	1^1	-1	-1		1	1
χ_{40}		1^1	-1	-1					1	1
χ_{41}		(∓ 1)	-2	-2	(± 1)			1^1	1	1
χ_{42}		2	-3	-3		-1	-1		2	2
χ_{45}	-1^{-1}	-1^{-1}	-1	-1	1^1			1^1	1	1
χ_{46}		1^0	-1	-1	(± 1)			1^1	1	1
χ_{48}		-1^{-1}			1^1			1^1	1	1
χ_{54}		(∓ 1)	-1	-1	(± 1)			1^1	2	2

Group: $HN [G G.2]$

Prime: 3

Defect: 2 2

BS	χ_8^\pm	χ_{10}^\pm	χ_{19}^\pm	χ_{32}^\pm	χ_{33}^\mp	χ_{37}^\pm	χ_{49}^\pm
χ_{43}^\pm	-1	-1	1	1	1		
χ_{50}^\pm	1	1			-1	1	1

Group: $HN [G:2]$

Prime: 5

Defect: 6 6

BS	χ_1	χ_4	χ_5	χ_8	χ_9	χ_{10}	χ_{17}	χ_{18}	χ_{19}

χ_2	-4	7	-5	-3	4	7	-1	-2	-1
χ_3	-4	7	-5	-3	4	7	-1	-2	-1
χ_6	-1	1		-1		1			
χ_7	-1	1		-1		1			
χ_{11}	-1	1		-1	1	2			
χ_{12}	-1	1		-1	1	2			
χ_{13}	-2	3	-2	-3	2	5		-1	
χ_{14}	-2	3	-2	-3	2	5		-1	
χ_{15}	4	-6	4	2	-4	-5		2	1
χ_{16}	4	-6	4	2	-4	-5		2	1
χ_{20}	(∓ 1)		1^2	4	-1^{-1}	-5^{-3}	-1^1	2	-2
χ_{21}	2	-4	3	2	-2	-4	1	1	1
χ_{22}	2	-4	3	2	-2	-4	1	1	1
χ_{23}	-7^{-4}	11^6	-7^{-3}	-7^{-4}	7^3	14	-2^0	-2	-2
χ_{27}	1	-3	3			-1		1	
χ_{28}	1	-3	3			-1		1	
χ_{30}	-1		1	-1	1	1			
χ_{31}	-1		1	-1	1	1			
χ_{32}	6	-6	2	5^2	-6	-8		2	2
χ_{35}			1				-1	1	-1
χ_{36}			1				-1	1	-1
χ_{37}	2	-4	3^2	2	-2	-4	-1^0	2	1^1
χ_{38}	-4	8	-6^{-4}	-4	4	8	-2	-1^0	-2^0
χ_{39}	6	-11^{-6}	8	6	-6	-12	2	2	2
χ_{46}	1^0	-2	2	1^0	-1^{-1}	-2	(± 1)		(± 1)
χ_{47}	-2	2	-1^0	(∓ 1)	2		-1^0		-2^{-2}
χ_{51}	3^2	-5^{-3}	4^1	3^2	-3^{-1}	-6	1^0	1^1	1^1
χ_{52}	3^2	-5^{-3}	4^1	3^2	-3^{-1}	-6	1^0	1^1	1^1
χ_{53}	-1^{-1}		1^1		1^0	-1^{-1}	(± 1)		-1^0

	λ_{29}	λ_{33}	λ_{34}	λ_{41}	λ_{42}	λ_{44}	λ_{49}

X2	-2	-3	3	-3	1	1	1
X3	-2	-3	3	-3	1	1	1
X6							
X7							
X11							
X12							
X13		-1	1	-1	1		
X14		-1	1	-1	1		
X15	2	2	-2	2		-1	-1
X16	2	2	-2	2		-1	-1
X20	-1^0	2	(∓ 1)	-2	-2		2^2
X21	1	1	-2	3	-1		-1
X22	1	1	-2	3	-1		-1
X23	-1^0	-2	4^1	-6	2		2^2
X27	2	3	-2			-1	
X28	2	3	-2			-1	
X30	1	1	-1				
X31	1	1	-1				
X32				2			-1^0
X35	1	1		-1		-1	1
X36	1	1		-1		-1	1
X37	1^1	1^1	-1^{-1}				
X38	-1^{-1}	-3^{-1}	4	-5^{-3}	2		2
X39	2	4	-5^{-2}	6	-2		-2
X46	1^1	1^1	-1^{-1}	1^0			(± 1)
X47	-1^0		1^0	-2			2^2
X51	3^1	2	-3^{-1}	3^1			-1^{-1}
X52	3^1	2	-3^{-1}	3^1			-1^{-1}
X53	1^1	1^1	-1^{-1}				1^1

Group: L_7

Prime: 2

Defect: 8

BS	χ_1	χ_9	χ_{10}	χ_{14}	χ_{17}	χ_{19}	χ_{20}	χ_{23}	χ_{33}
χ_{11}	-1	1	1						
χ_{15}		-1	1	-1	-1			1	
χ_{16}			1	-1	-1			1	
χ_{31}	1	-1	-1						1
χ_{32}	1	-1	-1						1
χ_{34}				-1	-2	1		2	
χ_{38}	1	-2	-1	1	-1		1		1
χ_{44}	1	-1	-1			1			1
χ_{45}	1	-1	-1				1		1
χ_{47}						1			1
χ_{48}						1			1
χ_{49}			-1		-1	1		1	1
χ_{50}	1	-1			-1	1		1	1
χ_{51}	1	-1	-1	1	-1	1	1		1
χ_{52}						1		1	1
χ_{53}	1	-1	-1		-1	1	1	1	1

Group: L_7

Prime: 2

Defect: 7

BS	χ_2	χ_3	χ_4	χ_{12}	χ_{21}	χ_{22}	χ_{24}	χ_{25}
χ_5	1		1					
χ_6		1	1					
χ_{13}			1	1				
χ_{18}	-2	-2	-1	2	-1	-1	1	1
χ_{29}	-1	-1		1	-1		1	1
χ_{30}	-1	-1		1		-1	1	1
χ_{35}	1	1		-2	1	1		
χ_{36}	1	1	1	-1	1	1		
χ_{37}	1	1	2		1	1		
χ_{46}	-1	-1		1			1	1

Group: L_7

Prime: 3

Defect: 7

BS	χ_1	χ_2	χ_3	χ_4	χ_5	χ_6	χ_9	χ_{10}	χ_{11}	χ_{13}	χ_{14}
χ_7	1		-1	1	1				-1	1	1
χ_8	1	-1		1		1			-1	1	1
χ_{15}	-1	2	2	1	-1	-1			2	-1	-3
χ_{16}	1	-1	-1				-1		-1	1	1
χ_{17}		1	1	1	-1	-1			1		-2
χ_{23}	1	-1	-1				-1		-1		1
χ_{29}		-1	-1	-1	1	1		1			1
χ_{30}		-1	-1	-1	1	1		1			1
χ_{31}		-1	-1	-1	1	1		1			1
χ_{32}		-1	-1	-1	1	1		1			1
χ_{33}				1							
χ_{34}	-1			-1			1		1	-1	
χ_{35}		-1	-1	-1							
χ_{38}	-2	1	1	-1			1		2	-1	-1
χ_{44}									1		
χ_{45}		2	2	1	-2	-2		-2	1		-4
χ_{46}		2	2	1	-2	-2		-2	1		-4
χ_{50}		1	1		-1	-1		-1			-2
χ_{52}	-1	1	1	-1	-1	-1	1		2	-1	-3
χ_{53}		-2	-2	-2	1	1		1	-1		3

	χ_{18}	χ_{19}	χ_{24}	χ_{25}	χ_{26}	χ_{27}	χ_{28}	χ_{36}	χ_{37}	χ_{47}	χ_{48}
χ_7			-1	-1					1		
χ_8			-1	-1					1		
χ_{15}	2				1	1	1		-2		
χ_{16}											
χ_{17}	2				1	1	1		-2		
χ_{23}		1									
χ_{29}	-2		1	1	-1	-1	-1	1	1		
χ_{30}	-2		1	1	-1	-1	-1	1	1		
χ_{31}	-2		1	1	-1	-1	-1	1	1		
χ_{32}	-2		1	1	-1	-1	-1	1	1		
χ_{33}	1	1									
χ_{34}	-1		1	1							
χ_{35}	-1		1	1							
χ_{38}			1	1							
χ_{44}			1	1							
χ_{45}	1				1	1	1	-1	-2	1	1
χ_{46}	1				1	1	1	-1	-2	1	1
χ_{50}	1				1	1	1	-1	-2	1	1
χ_{52}		-1	1	1	1	1	1	-1	-2	1	1
χ_{53}	-2		1	1	-1	-1	-1	1	2		

Group: L_3

Prime: 5

Defect: 6

BS	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11
X16	-1	-1	-1	-1	-1	-1	1	1	1	-1	-2
X19	-1	-1	-1	-2	-1	-1	2	2	1	-2	-2
X23	-1	-2	-2	3	2	2	1	1			-1
X33	-2	-1	-1	-2	-2	-2	2	2	2	-2	-3
X34	1	2	2	-3	-2	-2	-1	-1		1	1
X44	-1	2	2	-4	-4	-4			2		-1
X45	1	1	1	1	1	1	-1	-1	-2	1	2
X46		-1	-1	2	2	2					
X47	1	1	1	-1					-1	1	1
X48	1	1	1	-1					-1	1	1
X49		-1	-1	2	2	2	1	1	-1		
X51	-1			-1	-1	-1	1	1			-1
X53	-1			-1	-1	-1	1	1	1	-1	-1

	X12	X13	X14	X15	X17	X18	X20	X21	X22	X26	X27	X28
X16	2	-1		2	1	1	-2	-1	-1	1	1	1
X19	3	-1	-1	4	2	3	-2	-1	-1	1	1	1
X23	-1	1	-1	3	2	4	-1	-4	-4	-3	-3	-3
X33	2			4	2	2	-2	-1	-1	1	1	1
X34	1		1	-3	-1	-4	1	4	4	3	3	3
X44	2		1	-1		-4	-1	3	3	4	4	4
X45	-2			-3	-1	-1	1	1	1			
X46	-1			1				-2	-2	-1	-1	-1
X47	1			-1		-2	1	2	2	2	2	2
X48	1			-1		-2	1	2	2	2	2	2
X49			-1	2	1	2		-2	-2	-1	-1	-1
X51	1			1			-1			1	1	1
X53	1			2	1		-1			1	1	1

	X29	X30	X31	X32	X35	X36	X37	X39	X40	X41	X42	X43
X16			-1	-1		1						
X19			-1	-1	-1	1						
X23	3	3	-1	-1	-4	-1	-2	2	2	2	2	2
X33	1	1	-1	-1	-1							
X34	-3	-3	1	1	4	2	2	-2	-2	-2	-2	-2
X44	-3	-3	1	1	4	2	2	-2	-2	-2	-2	-2
X45	-1	-1	1	1	1							
X46	1	1	-1	-1	-1			1	1	1	1	1
X47	-2	-2			2	2	1	-1	-1	-1	-1	-1
X48	-2	-2			2	2	1	-1	-1	-1	-1	-1
X49	1	1	-1	-1	-2			1	1	1	1	1
X51												
X53												

Group: Th

Prime: 2

Defect: 15

BS	X1	X2	X6	X8	X9	X10	X11	X12	X13	X14
X3	1	-1	1	2	-1	-1		-1	-1	1
X4	-1		2	2	-1	-1		-2	-2	
X5	-1		2	2	-1	-1		-2	-2	
X7	-1	1	1							
X17					1	1		1	1	
X18					1	1		1	1	
X19			-2	-1						
X21			-1	-2						
X25	1		-2	-2				1	1	
X26	1		-3	-3			1	1	1	
X27					1	1		1	1	
X28					1	1		1	1	
X29	-1		2	2				-1	-1	
X30	-1		2	2				-1	-1	
X31			-1	-2						-1
X34			-1	-1	1	1		1	1	
X35	-1	1		-1	1					1
X36	-1	1		-1		1				1
X39	-1	1	1	1	1	1	-1	1	1	1
X40	-1	1	-2	-4	1	1		1	1	2
X41	-1	1			1	1	-1	1	1	1
X42	-2	2		-1	1	1	-1	1	1	2
X43	-1	2	-2	-3	1	1	-1	1	1	2
X44	-1	2	-2	-3	1	1		1	1	2
X45	-2	2		-1	2	2	-1	2	2	3
X46	-2	2		-1	2	2	-1	2	2	2
X48		1	-4	-5	1	1		2	2	2

	X15	X16	X20	X24	X32	X33	X37	X47
X3	1							
X4		-1	-1		2	-1		
X5		-1	-1		2	-1		
X7								
X17								
X18								
X19			1					
X21		1	1					
X25		1	1					
X26		1	1					
X27					-1	1		
X28					-1	1		
X29		-1	-1		1			
X30		-1	-1		1			
X31	-1	1			1			
X34						1		
X35	1		-1	1	3	-1		
X36	1		-1	1	3	-1		
X39	1	-1		1	-1	1	1	
X40	2	1		1	3			
X41	1	-1		1		1	1	
X42	2	-1	-1	2	3		1	
X43	2			2	3		1	
X44	2	1		2	3		1	
X45	3	-1	-1	2	2	1	1	
X46	2	-1	-1	2	3	1	1	
X48	2	2	2	1		2	1	1

Group: Th

Prime: 3

Defect: 10

BS	χ_1	χ_2	χ_3	χ_6	χ_7	χ_{11}	χ_{16}	χ_{19}	χ_{20}	χ_{33}
χ_4		1	-1		1					
χ_5		1	-1		1					
χ_8	1	-1		1	1					
χ_9		1		-1	-1	1				
χ_{10}		1		-1	-1	1				
χ_{14}				-1		-1	1			
χ_{15}				-1		-1	1			
χ_{17}	2	-2		2	1		-1		1	
χ_{18}	2	-2		2	1		-1		1	
χ_{21}				-1			1	1		
χ_{22}	1	-2		1			-1	1	1	
χ_{23}	1	-2		1			-1	1	1	
χ_{24}	1	-1	-1	1	1		-1	1	1	
χ_{26}	1	-2		1	1	-1		1	1	
χ_{27}	1	-1		1			-1	1	2	
χ_{28}	1	-1		1			-1	1	2	
χ_{29}	1		-1	1	1		-1	1	2	
χ_{30}	1		-1	1	1		-1	1	2	
χ_{31}	2	-2	-1	2	2		-2	2	3	
χ_{32}	-2	2			-2			-2		1
χ_{34}				1	-1		-1		1	1
χ_{35}	1		-1	2	1	-1	-3		3	1
χ_{36}	1		-1	2	1	-1	-3		3	1
χ_{37}	2	-2	-1	3	2	-1	-3	2	4	1
χ_{38}	3	-3	-1	4	2	-1	-4	2	5	1
χ_{39}	1	-1	-1	3	1	-2	-3	1	3	2
χ_{40}	2	-2		4	2	-2	-4	2	4	2
χ_{41}	3	-3	-1	5	3	-2	-7	3	7	2
χ_{44}	4	-3	-2	7	4	-3	-8	4	10	3
χ_{46}	9	-9	-3	12	9	-6	-12	6	15	3
χ_{47}	7	-7	-3	11	7	-4	-11	7	15	4

Group: *Th*

Prime: 5

Defect: 3

BS	χ_1	χ_2	χ_3	χ_6	χ_8	χ_{12}	χ_{13}	χ_{14}	χ_{15}	χ_{17}
χ_9	-1			1		-1	-1	-1	-1	1
χ_{10}	-1			1		-1	-1	-1	-1	1
χ_{20}	1	1	1	-1	-1	1	1	1	1	-1
χ_{35}	1				1					-1
χ_{36}	1				1					-1
χ_{45}	-1			1				-1	-1	2
χ_{48}	1				1	1	1			

	χ_{18}	χ_{19}	χ_{21}	χ_{25}	χ_{32}	χ_{33}	χ_{38}	χ_{40}	χ_{42}	χ_{46}
χ_9	1	1				-1	-1	1		
χ_{10}	1	1				-1	-1	1		
χ_{20}	-1	-1				2	2	-2		
χ_{35}	-1	-1	-1				1			
χ_{36}	-1	-1	-1				1			
χ_{45}	2	2	1	-1	-1	-1	-2	2	1	
χ_{48}		-1	-1				1		1	1

Group: *Th*

Prime: 7

Defect: 2

BS	χ_1	χ_2	χ_4	χ_5	χ_6	χ_7	χ_8	χ_{11}	χ_{12}	χ_{13}	χ_{17}	χ_{18}
χ_{16}	1	1	1	1	1	-2	-1	-2	1	1	-1	-1
χ_{44}		-1			-1	1	1	1	-1	-1	1	1
χ_{48}	-1	-1	-1	-1	-1	1		1	-1	-1		

	χ_{19}	χ_{22}	χ_{23}	χ_{25}	χ_{27}	χ_{28}	χ_{29}	χ_{30}	χ_{33}	χ_{41}	χ_{42}	χ_{43}
χ_{16}	2	1	1	2			1	1	-2			
χ_{44}	-1			-1	-1	-1	-1	-1	2			1
χ_{48}	-1			-2			-1	-1	1	1	1	1

Group: J_4

Prime: 2

Defect: 21

BS	χ_1	χ_2	χ_3	χ_4	χ_5	χ_6	χ_{11}	χ_{15}	χ_{16}	χ_{19}	χ_{20}
X6			-1			1					
X7		-1				1					
X9	2		1				2		-1		
X10	2	1					2	-1			
X12		-1				1		1			
X13			-1			1			1		
X14	3	2	2	-1	-1	-1	3	-1	-1	1	1
X17	1			1			1	-1	-1		
X18	1				1		1	-1	-1		
X22	4	-1	-1			5	2	-3	-3	4	4
X23	-2					-1	-2	1	1	-1	-1
X24	-2					-1	-2	1	1	-1	-1
X26	2			1	1		2	-2	-2		
X27		1	1			-2					
X28	-3	1	1	-1	-1	-3	-2	3	3	-2	-2
X29	-1	1	1			-3		1	1	-2	-2
X30						1				1	1
X31	3					2	2	-2	-2	2	2
X32	3					2	2	-2	-2	2	2
X33	-1	-1	-1			1	-1	1	1		-1
X34	-1	-1	-1			1	-1	1	1	-1	
X35	1						1				
X36	-1	-1	-1			1	-2	1	1		
X37	-1	-1	-1			1	-2	1	1		
X38						-1				-1	-1
X39						-1				-1	-1
X40		1	1	-1	-1	-1		1	1		
X41	3					3	2	-2	-2	3	3
X42	-2	1	1	-1	-1	-3	-2	3	3	-2	-2
X43	3					2	2	-2	-2	3	3
X45	3					3	2	-2	-2	3	3
X51	4	-2	-2			7	2	-2	-2	4	4
X52		1	1			-2					
X59	1	-1	-1	1	1			-1	-1	-1	-1
X60	-2	-1	-1				-2	1	1	-1	-1
X61	-2	1	1			-4	-2	1	1	-2	-2
X62	-1					-1	-1			-1	-1

BS	X21	X25	X44	X46	X47	X48	X49	X50	X56	X57	X58
X6											
X7											
X9	-1	-2	4	-2	-2	-2	1	2			
X10	-1	-2	4	-2	-2	-2	1	2			
X12	-1		-1	1	1	1	-1	-1			
X13	-1		-1	1	1	1	-1	-1			
X14		-2	6	-4	-4	-4	3	4			
X17	-1	-2	3	-1	-1	-1		1			
X18	-1	-2	3	-1	-1	-1		1			
X22	-3	-6	5	-4	-4	-4	-1	2	2	2	2
X23	1	3	-4	2	2	2	-1	-2			
X24	1	3	-4	2	2	2	-1	-2			
X26	-2	-3	6	-2	-2	-2		2			
X27	1	1									
X28	3	6	-6	3	3	3	1	-2	-1	-1	-1
X29	1	2		1	1	1	1		-1	-1	-1
X30	1		-1				1				
X31	-2	-4	5	-3	-3	-3		2	1	1	1
X32	-1	-4	5	-3	-3	-3		2	1	1	1
X33		1	-3	2	2	2	-1	-2			
X34		1	-3	2	2	2	-1	-2			
X35	-1	-1	1								
X36		1	-4	3	3	3	-2	-3			
X37		1	-4	3	3	3	-2	-3			
X38	-1		1								
X39	-1		1								
X40	1	2	-1				1				
X41	-2	-4	4	-3	-3	-3	1	2	1	1	1
X42	2	5	-5	3	3	3	1	-2	-1	-1	-1
X43	-1	-4	4	-3	-3	-3	1	2	1	1	1
X45	-1	-4	4	-3	-3	-3	1	2	1	1	1
X51	-4	-6	3	-2	-2	-2	-2		2	2	2
X52	1	1					1				
X59	-3	-2	3	1	1	1	-2	-1			
X60		2	-4	3	3	3	-2	-2			
X61	1	3	-2	2	2	2	1		-1	-1	-1
X62		1	1	1	1	1	-1				

Group: J_4

Prime: 3

Defect: 3

BS	X1	X8	X29	X40	X43	X49	X51	X52	X59
X19		-1	1	1		-1			
X20		-1	1	1		-1			
X60	-1	1		-1		1			1
X61		-1	2	2	-1	-1	-1	1	1
X62	-1		1		-1	1			1

Group: J_4

Prime: 3

Defect: 3

BS	X2	X3	X12	X13	X22	X26	X38	X39	X44
X17	-1		2	1	-2	-1	1	1	-1
X18		-1	1	2	-2	-1	1	1	-1
X23			1	1	-1	-1	1	1	-1
X24			1	1	-1	-1	1	1	-1
X50			1	1	-2		1	1	

Group: J_4

Prime: 3

Defect: 3

BS	χ_{14}	χ_{21}	χ_{25}	χ_{27}	χ_{28}
χ_{30}	1	1		1	
χ_{31}	-1		1		1
χ_{35}		1	1	1	
χ_{41}			1	1	1

Group: J_4

Prime: 11

Defect: 3

BS	χ_1	χ_2	χ_3	χ_4	χ_5	χ_6	χ_7	χ_8	χ_9	χ_{10}	χ_{11}	χ_{12}	χ_{13}	χ_{14}
χ_{19}						-1	-1	1						
χ_{20}						-1	-1	1						
χ_{32}	1	-2	-2	-1	-1	-1	-1		-2	-2	-2	-1	-1	-4
χ_{33}														
χ_{34}														
χ_{41}	1	-1	-1	-1	-1	-1	-1		-2	-2	-2	-1	-1	-3
χ_{51}	-1					1	1	-1	1	1	1			1
χ_{59}	1							1						-1
χ_{60}	1	-1	-1	-2	-2	-1	-1		-1	-1	-2	-1	-1	-3

	χ_{17}	χ_{18}	χ_{21}	χ_{22}	χ_{23}	χ_{24}	χ_{25}	χ_{26}	χ_{28}	χ_{29}	χ_{30}	χ_{31}	χ_{35}
χ_{19}	-1	-1	1		-1	-1	-1	1		1			
χ_{20}	-1	-1	1		-1	-1	-1	1		1			
χ_{32}	-2	-2	1	2	1	1	-1	-1	1	1	-3	2	-2
χ_{33}			-1	1							-1	1	
χ_{34}			-1	1							-1	1	
χ_{41}	-1	-1	1	1			-2	-1	1	1	-2	2	-1
χ_{51}	1	1	-1		1	1	1	-1	-1	-1			-1
χ_{59}			1	-1	-1	-1	-1		1	2		1	
χ_{60}			2				-3	-2	1	3	-3	3	-1

	χ_{36}	χ_{37}	χ_{38}	χ_{39}	χ_{40}	χ_{45}	χ_{46}	χ_{47}	χ_{48}	χ_{50}	χ_{53}	χ_{54}	χ_{55}
χ_{19}													
χ_{20}													
χ_{32}			1	1	-1	-2				-2	1	1	1
χ_{33}			1	1						-1			
χ_{34}			1	1						-1			
χ_{41}			1	1	-1	-2				-2	1	1	1
χ_{51}	1	1				1							
χ_{59}			-1	-1	-1		1	1	1				
χ_{60}					-2	-2	1	1	1	-2	1	1	1

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