

## $A_{17.2} \pmod{13}$

|       | blocks | defect | matrix                                  |  | blocks | defect | matrix                                   |
|-------|--------|--------|-----------------------------------------|--|--------|--------|------------------------------------------|
| $G :$ | 1      | 1      | $13 \times 12$                          |  | 41     | 0      | $68068_1 = \chi_{36,0}, \varphi_{36,0}$  |
|       | 2      | 1      | $13 \times 12$                          |  | 42     | 0      | $68068_2 = \chi_{36,1}, \varphi_{36,1}$  |
|       | 3      | 1      | $13 \times 12$                          |  | 43     | 0      | $70720_1 = \chi_{37,0}, \varphi_{37,0}$  |
|       | 4      | 1      | $13 \times 12$                          |  | 44     | 0      | $70720_2 = \chi_{37,1}, \varphi_{37,1}$  |
|       | 5      | 1      | $13 \times 12$                          |  | 45     | 0      | $74256_1 = \chi_{38,0}, \varphi_{38,0}$  |
|       | 6      | 0      | $1105_1 = \chi_{7,0}, \varphi_{7,0}$    |  | 46     | 0      | $74256_2 = \chi_{38,1}, \varphi_{38,1}$  |
|       | 7      | 0      | $1105_2 = \chi_{7,1}, \varphi_{7,1}$    |  | 47     | 0      | $85085_1 = \chi_{39,0}, \varphi_{39,0}$  |
|       | 8      | 0      | $1820_1 = \chi_{9,0}, \varphi_{9,0}$    |  | 48     | 0      | $85085_2 = \chi_{39,1}, \varphi_{39,1}$  |
|       | 9      | 0      | $1820_2 = \chi_{9,1}, \varphi_{9,1}$    |  | 49     | 0      | $87516_1 = \chi_{40,0}, \varphi_{40,0}$  |
|       | 10     | 0      | $3536_1 = \chi_{10,0}, \varphi_{10,0}$  |  | 50     | 0      | $87516_2 = \chi_{40,1}, \varphi_{40,1}$  |
|       | 11     | 0      | $3536_2 = \chi_{10,1}, \varphi_{10,1}$  |  | 51     | 0      | $116688_1 = \chi_{41,0}, \varphi_{42,0}$ |
|       | 12     | 0      | $4368_1 = \chi_{12,0}, \varphi_{12,0}$  |  | 52     | 0      | $116688_2 = \chi_{41,1}, \varphi_{42,1}$ |
|       | 13     | 0      | $4368_2 = \chi_{12,1}, \varphi_{12,1}$  |  | 53     | 0      | $116688_3 = \chi_{42,0}, \varphi_{43,0}$ |
|       | 14     | 0      | $4862_1 = \chi_{13,0}, \varphi_{14,0}$  |  | 54     | 0      | $116688_4 = \chi_{42,1}, \varphi_{43,1}$ |
|       | 15     | 0      | $4862_2 = \chi_{13,1}, \varphi_{14,1}$  |  | 55     | 0      | $121550_1 = \chi_{43,0}, \varphi_{44,0}$ |
|       | 16     | 0      | $6188_1 = \chi_{16,0}, \varphi_{16,0}$  |  | 56     | 0      | $121550_2 = \chi_{43,1}, \varphi_{44,1}$ |
|       | 17     | 0      | $6188_2 = \chi_{16,1}, \varphi_{16,1}$  |  | 57     | 0      | $123760_1 = \chi_{44,0}, \varphi_{45,0}$ |
|       | 18     | 0      | $7072_1 = \chi_{19,0}, \varphi_{19,0}$  |  | 58     | 0      | $123760_2 = \chi_{44,1}, \varphi_{45,1}$ |
|       | 19     | 0      | $7072_2 = \chi_{19,1}, \varphi_{19,1}$  |  | 59     | 0      | $123760_3 = \chi_{45,0}, \varphi_{46,0}$ |
|       | 20     | 0      | $8008_1 = \chi_{20,0}, \varphi_{20,0}$  |  | 60     | 0      | $123760_4 = \chi_{45,1}, \varphi_{46,1}$ |
|       | 21     | 0      | $8008_2 = \chi_{20,1}, \varphi_{20,1}$  |  | 61     | 0      | $129948_1 = \chi_{46,0}, \varphi_{47,0}$ |
|       | 22     | 0      | $11440_1 = \chi_{21,0}, \varphi_{21,0}$ |  | 62     | 0      | $129948_2 = \chi_{46,1}, \varphi_{47,1}$ |
|       | 23     | 0      | $11440_2 = \chi_{21,1}, \varphi_{21,1}$ |  | 63     | 0      | $129948_3 = \chi_{47,0}, \varphi_{48,0}$ |
|       | 24     | 0      | $12870_1 = \chi_{17+}, \varphi_{17+}$   |  | 64     | 0      | $129948_4 = \chi_{47,1}, \varphi_{48,1}$ |
|       | 25     | 0      | $15912_1 = \chi_{22,0}, \varphi_{23,0}$ |  | 65     | 0      | $136136_1 = \chi_{49,0}, \varphi_{50,0}$ |
|       | 26     | 0      | $15912_2 = \chi_{22,1}, \varphi_{23,1}$ |  | 66     | 0      | $136136_2 = \chi_{49,1}, \varphi_{50,1}$ |
|       | 27     | 0      | $17017_1 = \chi_{23,0}, \varphi_{25,0}$ |  | 67     | 0      | $145860_1 = \chi_{50,0}, \varphi_{51,0}$ |
|       | 28     | 0      | $17017_2 = \chi_{23,1}, \varphi_{25,1}$ |  | 68     | 0      | $145860_2 = \chi_{50,1}, \varphi_{51,1}$ |
|       | 29     | 0      | $19448_1 = \chi_{24,0}, \varphi_{26,0}$ |  | 69     | 0      | $148512_1 = \chi_{51,0}, \varphi_{52,0}$ |
|       | 30     | 0      | $19448_2 = \chi_{24,1}, \varphi_{26,1}$ |  | 70     | 0      | $148512_2 = \chi_{51,1}, \varphi_{52,1}$ |
|       | 31     | 0      | $24752_1 = \chi_{27,0}, \varphi_{28,0}$ |  | 71     | 0      | $148512_3 = \chi_{52,0}, \varphi_{53,0}$ |
|       | 32     | 0      | $24752_2 = \chi_{27,1}, \varphi_{28,1}$ |  | 72     | 0      | $148512_4 = \chi_{52,1}, \varphi_{53,1}$ |
|       | 33     | 0      | $38675_1 = \chi_{31,0}, \varphi_{31,0}$ |  | 73     | 0      | $155584_1 = \chi_{53,0}, \varphi_{54,0}$ |
|       | 34     | 0      | $38675_2 = \chi_{31,1}, \varphi_{31,1}$ |  | 74     | 0      | $155584_2 = \chi_{53,1}, \varphi_{54,1}$ |
|       | 35     | 0      | $46410_1 = \chi_{32,0}, \varphi_{32,0}$ |  | 75     | 0      | $159120_1 = \chi_{55,0}, \varphi_{55,0}$ |
|       | 36     | 0      | $46410_2 = \chi_{32,1}, \varphi_{32,1}$ |  | 76     | 0      | $159120_2 = \chi_{55,1}, \varphi_{55,1}$ |
|       | 37     | 0      | $48620_1 = \chi_{33,0}, \varphi_{33,0}$ |  | 77     | 0      | $170170_1 = \chi_{56,0}, \varphi_{56,0}$ |
|       | 38     | 0      | $48620_2 = \chi_{33,1}, \varphi_{33,1}$ |  | 78     | 0      | $170170_2 = \chi_{56,1}, \varphi_{56,1}$ |
|       | 39     | 0      | $65637_1 = \chi_{35,0}, \varphi_{35,0}$ |  | 79     | 0      | $194480_1 = \chi_{57,0}, \varphi_{59,0}$ |
|       | 40     | 0      | $65637_2 = \chi_{35,1}, \varphi_{35,1}$ |  | 80     | 0      | $194480_2 = \chi_{57,1}, \varphi_{59,1}$ |

|  | blocks | defect | matrix                                   |
|--|--------|--------|------------------------------------------|
|  | 81     | 0      | $204204_1 = \chi_{58,0}, \varphi_{60,0}$ |
|  | 82     | 0      | $204204_2 = \chi_{58,1}, \varphi_{60,1}$ |
|  | 83     | 0      | $233376_1 = \chi_{61,0}, \varphi_{62,0}$ |
|  | 84     | 0      | $233376_2 = \chi_{61,1}, \varphi_{62,1}$ |
|  | 85     | 0      | $238238_1 = \chi_{62,0}, \varphi_{63,0}$ |
|  | 86     | 0      | $238238_2 = \chi_{62,1}, \varphi_{63,1}$ |
|  | 87     | 0      | $243100_1 = \chi_{63,0}, \varphi_{64,0}$ |
|  | 88     | 0      | $243100_2 = \chi_{63,1}, \varphi_{64,1}$ |
|  | 89     | 0      | $247520_1 = \chi_{64,0}, \varphi_{65,0}$ |
|  | 90     | 0      | $247520_2 = \chi_{64,1}, \varphi_{65,1}$ |
|  | 91     | 0      | $259896_1 = \chi_{65,0}, \varphi_{66,0}$ |
|  | 92     | 0      | $259896_2 = \chi_{65,1}, \varphi_{66,1}$ |
|  | 93     | 0      | $272272_1 = \chi_{66,0}, \varphi_{69,0}$ |
|  | 94     | 0      | $272272_2 = \chi_{66,1}, \varphi_{69,1}$ |
|  | 95     | 0      | $272272_3 = \chi_{67,0}, \varphi_{70,0}$ |
|  | 96     | 0      | $272272_4 = \chi_{67,1}, \varphi_{70,1}$ |
|  | 97     | 0      | $272272_5 = \chi_{68,0}, \varphi_{71,0}$ |
|  | 98     | 0      | $272272_6 = \chi_{68,1}, \varphi_{71,1}$ |
|  | 99     | 0      | $272272_7 = \chi_{69,0}, \varphi_{72,0}$ |
|  | 100    | 0      | $272272_8 = \chi_{69,1}, \varphi_{72,1}$ |
|  | 101    | 0      | $291720_1 = \chi_{70,0}, \varphi_{73,0}$ |
|  | 102    | 0      | $291720_2 = \chi_{70,1}, \varphi_{73,1}$ |
|  | 103    | 0      | $318240_1 = \chi_{71,0}, \varphi_{75,0}$ |
|  | 104    | 0      | $318240_2 = \chi_{71,1}, \varphi_{75,1}$ |
|  | 105    | 0      | $340340_1 = \chi_{74,0}, \varphi_{76,0}$ |
|  | 106    | 0      | $340340_2 = \chi_{74,1}, \varphi_{76,1}$ |
|  | 107    | 0      | $340340_3 = \chi_{75,0}, \varphi_{77,0}$ |
|  | 108    | 0      | $340340_4 = \chi_{75,1}, \varphi_{77,1}$ |
|  | 109    | 0      | $346528_1 = \chi_{76,0}, \varphi_{78,0}$ |
|  | 110    | 0      | $346528_2 = \chi_{76,1}, \varphi_{78,1}$ |
|  | 111    | 0      | $353600_1 = \chi_{77,0}, \varphi_{79,0}$ |
|  | 112    | 0      | $353600_2 = \chi_{77,1}, \varphi_{79,1}$ |
|  | 113    | 0      | $364650_1 = \chi_{78,0}, \varphi_{80,0}$ |
|  | 114    | 0      | $364650_2 = \chi_{78,1}, \varphi_{80,1}$ |
|  | 115    | 0      | $388960_1 = \chi_{79,0}, \varphi_{81,0}$ |
|  | 116    | 0      | $388960_2 = \chi_{79,1}, \varphi_{81,1}$ |
|  | 117    | 0      | $408408_1 = \chi_{81,0}, \varphi_{82,0}$ |
|  | 118    | 0      | $408408_2 = \chi_{81,1}, \varphi_{82,1}$ |
|  | 119    | 0      | $433160_1 = \chi_{82,0}, \varphi_{84,0}$ |
|  | 120    | 0      | $433160_2 = \chi_{82,1}, \varphi_{84,1}$ |

|  | blocks | defect | matrix                                     |
|--|--------|--------|--------------------------------------------|
|  | 121    | 0      | $466752_1 = \chi_{83,0}, \varphi_{85,0}$   |
|  | 122    | 0      | $466752_2 = \chi_{83,1}, \varphi_{85,1}$   |
|  | 123    | 0      | $486200_1 = \chi_{84,0}, \varphi_{86,0}$   |
|  | 124    | 0      | $486200_2 = \chi_{84,1}, \varphi_{86,1}$   |
|  | 125    | 0      | $544544_1 = \chi_{86,0}, \varphi_{87,0}$   |
|  | 126    | 0      | $544544_2 = \chi_{86,1}, \varphi_{87,1}$   |
|  | 127    | 0      | $556920_1 = \chi_{87,0}, \varphi_{89,0}$   |
|  | 128    | 0      | $556920_2 = \chi_{87,1}, \varphi_{89,1}$   |
|  | 129    | 0      | $583440_1 = \chi_{89,0}, \varphi_{90,0}$   |
|  | 130    | 0      | $583440_2 = \chi_{89,1}, \varphi_{90,1}$   |
|  | 131    | 0      | $583440_3 = \chi_{90,0}, \varphi_{91,0}$   |
|  | 132    | 0      | $583440_4 = \chi_{90,1}, \varphi_{91,1}$   |
|  | 133    | 0      | $618800_1 = \chi_{92,0}, \varphi_{92,0}$   |
|  | 134    | 0      | $618800_2 = \chi_{92,1}, \varphi_{92,1}$   |
|  | 135    | 0      | $618800_3 = \chi_{93,0}, \varphi_{93,0}$   |
|  | 136    | 0      | $618800_4 = \chi_{93,1}, \varphi_{93,1}$   |
|  | 137    | 0      | $680680_1 = \chi_{96,0}, \varphi_{96,0}$   |
|  | 138    | 0      | $680680_2 = \chi_{96,1}, \varphi_{96,1}$   |
|  | 139    | 0      | $680680_3 = \chi_{97,0}, \varphi_{97,0}$   |
|  | 140    | 0      | $680680_4 = \chi_{97,1}, \varphi_{97,1}$   |
|  | 141    | 0      | $700128_1 = \chi_{98,0}, \varphi_{98,0}$   |
|  | 142    | 0      | $700128_2 = \chi_{98,1}, \varphi_{98,1}$   |
|  | 143    | 0      | $742560_1 = \chi_{101,0}, \varphi_{101,0}$ |
|  | 144    | 0      | $742560_2 = \chi_{101,1}, \varphi_{101,1}$ |
|  | 145    | 0      | $816816_1 = \chi_{105,0}, \varphi_{104,0}$ |
|  | 146    | 0      | $816816_2 = \chi_{105,1}, \varphi_{104,1}$ |
|  | 147    | 0      | $848640_1 = \chi_{106,0}, \varphi_{105,0}$ |
|  | 148    | 0      | $848640_2 = \chi_{106,1}, \varphi_{105,1}$ |
|  | 149    | 0      | $850850_1 = \chi_{107,0}, \varphi_{106,0}$ |
|  | 150    | 0      | $850850_2 = \chi_{107,1}, \varphi_{106,1}$ |
|  | 151    | 0      | $891072_1 = \chi_{108,0}, \varphi_{107,0}$ |
|  | 152    | 0      | $891072_2 = \chi_{108,1}, \varphi_{107,1}$ |
|  | 153    | 0      | $918918_1 = \chi_{110,0}, \varphi_{109,0}$ |
|  | 154    | 0      | $918918_2 = \chi_{110,1}, \varphi_{109,1}$ |
|  | 155    | 0      | $952952_1 = \chi_{111,0}, \varphi_{111,0}$ |
|  | 156    | 0      | $952952_2 = \chi_{111,1}, \varphi_{111,1}$ |
|  | 157    | 0      | $972400_1 = \chi_{112,0}, \varphi_{112,0}$ |
|  | 158    | 0      | $972400_2 = \chi_{112,1}, \varphi_{112,1}$ |
|  | 159    | 0      | $972400_3 = \chi_{113,0}, \varphi_{113,0}$ |
|  | 160    | 0      | $972400_4 = \chi_{113,1}, \varphi_{113,1}$ |

|  | blocks | defect | matrix                                      |
|--|--------|--------|---------------------------------------------|
|  | 161    | 0      | $1021020_1 = \chi_{114,0}, \varphi_{114,0}$ |
|  | 162    | 0      | $1021020_2 = \chi_{114,1}, \varphi_{114,1}$ |
|  | 163    | 0      | $1050192_1 = \chi_{116,0}, \varphi_{115,0}$ |
|  | 164    | 0      | $1050192_2 = \chi_{116,1}, \varphi_{115,1}$ |
|  | 165    | 0      | $1082900_1 = \chi_{117,0}, \varphi_{116,0}$ |
|  | 166    | 0      | $1082900_2 = \chi_{117,1}, \varphi_{116,1}$ |
|  | 167    | 0      | $1082900_3 = \chi_{118,0}, \varphi_{117,0}$ |
|  | 168    | 0      | $1082900_4 = \chi_{118,1}, \varphi_{117,1}$ |
|  | 169    | 0      | $1089088_1 = \chi_{119,0}, \varphi_{118,0}$ |
|  | 170    | 0      | $1089088_2 = \chi_{119,1}, \varphi_{118,1}$ |
|  | 171    | 0      | $1089088_3 = \chi_{120,0}, \varphi_{119,0}$ |
|  | 172    | 0      | $1089088_4 = \chi_{120,1}, \varphi_{119,1}$ |
|  | 173    | 0      | $1089088_5 = \chi_{121,0}, \varphi_{120,0}$ |
|  | 174    | 0      | $1089088_6 = \chi_{121,1}, \varphi_{120,1}$ |
|  | 175    | 0      | $1113840_1 = \chi_{122,0}, \varphi_{121,0}$ |
|  | 176    | 0      | $1113840_2 = \chi_{122,1}, \varphi_{121,1}$ |
|  | 177    | 0      | $1299480_1 = \chi_{123,0}, \varphi_{122,0}$ |
|  | 178    | 0      | $1299480_2 = \chi_{123,1}, \varphi_{122,1}$ |
|  | 179    | 0      | $1326000_1 = \chi_{124,0}, \varphi_{123,0}$ |
|  | 180    | 0      | $1326000_2 = \chi_{124,1}, \varphi_{123,1}$ |
|  | 181    | 0      | $1336608_1 = \chi_{125,0}, \varphi_{124,0}$ |
|  | 182    | 0      | $1336608_2 = \chi_{125,1}, \varphi_{124,1}$ |
|  | 183    | 0      | $1361360_1 = \chi_{126,0}, \varphi_{125,0}$ |
|  | 184    | 0      | $1361360_2 = \chi_{126,1}, \varphi_{125,1}$ |
|  | 185    | 0      | $1361360_3 = \chi_{127,0}, \varphi_{126,0}$ |
|  | 186    | 0      | $1361360_4 = \chi_{127,1}, \varphi_{126,1}$ |
|  | 187    | 0      | $1361360_5 = \chi_{128,0}, \varphi_{127,0}$ |
|  | 188    | 0      | $1361360_6 = \chi_{128,1}, \varphi_{127,1}$ |
|  | 189    | 0      | $1361360_7 = \chi_{129,0}, \varphi_{128,0}$ |
|  | 190    | 0      | $1361360_8 = \chi_{129,1}, \varphi_{128,1}$ |
|  | 191    | 0      | $1429428_1 = \chi_{130,0}, \varphi_{129,0}$ |
|  | 192    | 0      | $1429428_2 = \chi_{130,1}, \varphi_{129,1}$ |
|  | 193    | 0      | $1458600_1 = \chi_{99+}, \varphi_{99+}$     |
|  | 194    | 0      | $1485120_1 = \chi_{132,0}, \varphi_{130,0}$ |
|  | 195    | 0      | $1485120_2 = \chi_{132,1}, \varphi_{130,1}$ |
|  | 196    | 0      | $1531530_1 = \chi_{103+}, \varphi_{102+}$   |
|  | 197    | 0      | $1591200_1 = \chi_{134,0}, \varphi_{131,0}$ |
|  | 198    | 0      | $1591200_2 = \chi_{134,1}, \varphi_{131,1}$ |
|  | 199    | 0      | $1633632_1 = \chi_{135,0}, \varphi_{132,0}$ |
|  | 200    | 0      | $1633632_2 = \chi_{135,1}, \varphi_{132,1}$ |

|  | blocks | defect | matrix                                      |
|--|--------|--------|---------------------------------------------|
|  | 201    | 0      | $1633632_3 = \chi_{136,0}, \varphi_{133,0}$ |
|  | 202    | 0      | $1633632_4 = \chi_{136,1}, \varphi_{133,1}$ |
|  | 203    | 0      | $1701700_1 = \chi_{137,0}, \varphi_{134,0}$ |
|  | 204    | 0      | $1701700_2 = \chi_{137,1}, \varphi_{134,1}$ |
|  | 205    | 0      | $1701700_3 = \chi_{138,0}, \varphi_{135,0}$ |
|  | 206    | 0      | $1701700_4 = \chi_{138,1}, \varphi_{135,1}$ |
|  | 207    | 0      | $1750320_1 = \chi_{139,0}, \varphi_{136,0}$ |
|  | 208    | 0      | $1750320_2 = \chi_{139,1}, \varphi_{136,1}$ |
|  | 209    | 0      | $1750320_3 = \chi_{140,0}, \varphi_{137,0}$ |
|  | 210    | 0      | $1750320_4 = \chi_{140,1}, \varphi_{137,1}$ |
|  | 211    | 0      | $1905904_1 = \chi_{142,0}, \varphi_{138,0}$ |
|  | 212    | 0      | $1905904_2 = \chi_{142,1}, \varphi_{138,1}$ |
|  | 213    | 0      | $2165800_1 = \chi_{143,0}, \varphi_{139,0}$ |
|  | 214    | 0      | $2165800_2 = \chi_{143,1}, \varphi_{139,1}$ |
|  | 215    | 0      | $2255526_1 = \chi_{144,0}, \varphi_{140,0}$ |
|  | 216    | 0      | $2255526_2 = \chi_{144,1}, \varphi_{140,1}$ |
|  | 217    | 0      | $2362932_1 = \chi_{145,0}, \varphi_{141,0}$ |
|  | 218    | 0      | $2362932_2 = \chi_{145,1}, \varphi_{141,1}$ |
|  | 219    | 0      | $2431000_1 = \chi_{146,0}, \varphi_{142,0}$ |
|  | 220    | 0      | $2431000_2 = \chi_{146,1}, \varphi_{142,1}$ |
|  | 221    | 0      | $2450448_1 = \chi_{149,0}, \varphi_{145,0}$ |
|  | 222    | 0      | $2450448_2 = \chi_{149,1}, \varphi_{145,1}$ |
|  | 223    | 0      | $2475200_1 = \chi_{150,0}, \varphi_{146,0}$ |
|  | 224    | 0      | $2475200_2 = \chi_{150,1}, \varphi_{146,1}$ |
|  | 225    | 0      | $2552550_1 = \chi_{151,0}, \varphi_{147,0}$ |
|  | 226    | 0      | $2552550_2 = \chi_{151,1}, \varphi_{147,1}$ |
|  | 227    | 0      | $2598960_1 = \chi_{152,0}, \varphi_{148,0}$ |
|  | 228    | 0      | $2598960_2 = \chi_{152,1}, \varphi_{148,1}$ |
|  | 229    | 0      | $2722720_1 = \chi_{153,0}, \varphi_{149,0}$ |
|  | 230    | 0      | $2722720_2 = \chi_{153,1}, \varphi_{149,1}$ |
|  | 231    | 0      | $2858856_1 = \chi_{154,0}, \varphi_{150,0}$ |
|  | 232    | 0      | $2858856_2 = \chi_{154,1}, \varphi_{150,1}$ |
|  | 233    | 0      | $3573570_1 = \chi_{155,0}, \varphi_{151,0}$ |
|  | 234    | 0      | $3573570_2 = \chi_{155,1}, \varphi_{151,1}$ |
|  | 235    | 0      | $3620864_1 = \chi_{156,0}, \varphi_{152,0}$ |
|  | 236    | 0      | $3620864_2 = \chi_{156,1}, \varphi_{152,1}$ |
|  | 237    | 0      | $4873050_1 = \chi_{147+}, \varphi_{143+}$   |

| <b>Block 1:</b>          | $\varphi_{1,0}$ | $\varphi_{6,1}$ | $\varphi_{11,0}$ | $\varphi_{13,1}$ | $\varphi_{24,1}$ | $\varphi_{27,1}$ | $\varphi_{29,0}$ | $\varphi_{41,0}$ | $\varphi_{49,1}$ | $\varphi_{61,0}$ |
|--------------------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| $1_1 = \chi_{1,0}$       | 1               | .               | .                | .                | .                | .                | .                | .                | .                | .                |
| $560_2 = \chi_{6,1}$     | .               | 1               | .                | .                | .                | .                | .                | .                | .                | .                |
| $3808_1 = \chi_{11,0}$   | 1               | .               | 1                | .                | .                | .                | .                | .                | .                | .                |
| $5355_2 = \chi_{15,1}$   | .               | 1               | .                | 1                | .                | .                | .                | .                | .                | .                |
| $20944_2 = \chi_{26,1}$  | .               | .               | .                | 1                | 1                | .                | .                | .                | .                | .                |
| $33320_1 = \chi_{28,0}$  | .               | .               | 1                | .                | .                | .                | 1                | .                | .                | .                |
| $37400_2 = \chi_{30,1}$  | .               | .               | .                | .                | 1                | 1                | .                | .                | .                | .                |
| $134640_1 = \chi_{48,0}$ | .               | .               | .                | .                | .                | .                | 1                | 1                | .                | .                |
| $157080_2 = \chi_{54,1}$ | .               | .               | .                | .                | .                | 1                | .                | .                | 1                | .                |
| $327250_1 = \chi_{72,0}$ | .               | .               | .                | .                | .                | .                | .                | 1                | .                | 1                |
| $399840_2 = \chi_{80,1}$ | .               | .               | .                | .                | .                | .                | .                | .                | 1                | .                |
| $523600_1 = \chi_{85,0}$ | .               | .               | .                | .                | .                | .                | .                | .                | .                | 1                |
| $565488_1 = \chi_{88,0}$ | .               | .               | .                | .                | .                | .                | .                | .                | .                | .                |

| <b>(Block 1:)</b>        | $\varphi_{67,1}$ | $\varphi_{74,0}$ |                             |
|--------------------------|------------------|------------------|-----------------------------|
| $1_1 = \chi_{1,0}$       | .                | .                | $\varphi_{1,0} = 1_1$       |
| $560_2 = \chi_{6,1}$     | .                | .                | $\varphi_{6,1} = 560_2$     |
| $3808_1 = \chi_{11,0}$   | .                | .                | $\varphi_{11,0} = 3807_1$   |
| $5355_2 = \chi_{15,1}$   | .                | .                | $\varphi_{13,1} = 4795_2$   |
| $20944_2 = \chi_{26,1}$  | .                | .                | $\varphi_{24,1} = 16149_2$  |
| $33320_1 = \chi_{28,0}$  | .                | .                | $\varphi_{27,1} = 21251_2$  |
| $37400_2 = \chi_{30,1}$  | .                | .                | $\varphi_{29,0} = 29513_1$  |
| $134640_1 = \chi_{48,0}$ | .                | .                | $\varphi_{41,0} = 105127_1$ |
| $157080_2 = \chi_{54,1}$ | .                | .                | $\varphi_{49,1} = 135829_2$ |
| $327250_1 = \chi_{72,0}$ | .                | .                | $\varphi_{61,0} = 222123_1$ |
| $399840_2 = \chi_{80,1}$ | 1                | .                | $\varphi_{67,1} = 264011_2$ |
| $523600_1 = \chi_{85,0}$ | .                | 1                | $\varphi_{74,0} = 301477_1$ |
| $565488_1 = \chi_{88,0}$ | 1                | 1                |                             |

| <b>Block 2:</b>          | $\varphi_{1,1}$ | $\varphi_{6,0}$ | $\varphi_{11,1}$ | $\varphi_{13,0}$ | $\varphi_{24,0}$ | $\varphi_{27,0}$ | $\varphi_{29,1}$ | $\varphi_{41,1}$ | $\varphi_{49,0}$ | $\varphi_{61,1}$ |
|--------------------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| $1_2 = \chi_{1,1}$       | 1               | .               | .                | .                | .                | .                | .                | .                | .                | .                |
| $560_1 = \chi_{6,0}$     | .               | 1               | .                | .                | .                | .                | .                | .                | .                | .                |
| $3808_2 = \chi_{11,1}$   | 1               | .               | 1                | .                | .                | .                | .                | .                | .                | .                |
| $5355_1 = \chi_{15,0}$   | .               | 1               | .                | 1                | .                | .                | .                | .                | .                | .                |
| $20944_1 = \chi_{26,0}$  | .               | .               | .                | 1                | 1                | .                | .                | .                | .                | .                |
| $33320_2 = \chi_{28,1}$  | .               | .               | 1                | .                | .                | .                | 1                | .                | .                | .                |
| $37400_1 = \chi_{30,0}$  | .               | .               | .                | .                | 1                | 1                | .                | .                | .                | .                |
| $134640_2 = \chi_{48,1}$ | .               | .               | .                | .                | .                | .                | 1                | 1                | .                | .                |
| $157080_1 = \chi_{54,0}$ | .               | .               | .                | .                | .                | 1                | .                | .                | 1                | .                |
| $327250_2 = \chi_{72,1}$ | .               | .               | .                | .                | .                | .                | .                | 1                | .                | 1                |
| $399840_1 = \chi_{80,0}$ | .               | .               | .                | .                | .                | .                | .                | .                | 1                | .                |
| $523600_2 = \chi_{85,1}$ | .               | .               | .                | .                | .                | .                | .                | .                | .                | 1                |
| $565488_2 = \chi_{88,1}$ | .               | .               | .                | .                | .                | .                | .                | .                | .                | .                |

| <b>(Block 2:)</b>        | $\varphi_{67,0}$ | $\varphi_{74,1}$ |                             |
|--------------------------|------------------|------------------|-----------------------------|
| $1_2 = \chi_{1,1}$       | .                | .                | $\varphi_{1,1} = 1_2$       |
| $560_1 = \chi_{6,0}$     | .                | .                | $\varphi_{6,0} = 560_1$     |
| $3808_2 = \chi_{11,1}$   | .                | .                | $\varphi_{11,1} = 3807_2$   |
| $5355_1 = \chi_{15,0}$   | .                | .                | $\varphi_{13,0} = 4795_1$   |
| $20944_1 = \chi_{26,0}$  | .                | .                | $\varphi_{24,0} = 16149_1$  |
| $33320_2 = \chi_{28,1}$  | .                | .                | $\varphi_{27,0} = 21251_1$  |
| $37400_1 = \chi_{30,0}$  | .                | .                | $\varphi_{29,1} = 29513_2$  |
| $134640_2 = \chi_{48,1}$ | .                | .                | $\varphi_{41,1} = 105127_2$ |
| $157080_1 = \chi_{54,0}$ | .                | .                | $\varphi_{49,0} = 135829_1$ |
| $327250_2 = \chi_{72,1}$ | .                | .                | $\varphi_{61,1} = 222123_2$ |
| $399840_1 = \chi_{80,0}$ | 1                | .                | $\varphi_{67,0} = 264011_1$ |
| $523600_2 = \chi_{85,1}$ | .                | 1                | $\varphi_{74,1} = 301477_2$ |
| $565488_2 = \chi_{88,1}$ | 1                | 1                |                             |

| <b>Block 3:</b>            | $\varphi_{2,0}$ | $\varphi_{4,1}$ | $\varphi_{8,0}$ | $\varphi_{15,1}$ | $\varphi_{22,1}$ | $\varphi_{34,0}$ | $\varphi_{58,1}$ | $\varphi_{68,0}$ | $\varphi_{88,1}$ | $\varphi_{95,0}$ |
|----------------------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| $16_1 = \chi_{2,0}$        | 1               | .               | .               | .                | .                | .                | .                | .                | .                | .                |
| $120_2 = \chi_{4,1}$       | .               | 1               | .               | .                | .                | .                | .                | .                | .                | .                |
| $1700_1 = \chi_{8,0}$      | 1               | .               | 1               | .                | .                | .                | .                | .                | .                | .                |
| $5236_2 = \chi_{14,1}$     | .               | 1               | .               | 1                | .                | .                | .                | .                | .                | .                |
| $20400_2 = \chi_{25,1}$    | .               | .               | .               | 1                | 1                | .                | .                | .                | .                | .                |
| $62832_1 = \chi_{34,0}$    | .               | .               | 1               | .                | .                | 1                | .                | .                | .                | .                |
| $209440_2 = \chi_{60,1}$   | .               | .               | .               | .                | 1                | .                | 1                | .                | .                | .                |
| $333200_1 = \chi_{73,0}$   | .               | .               | .               | .                | .                | 1                | .                | 1                | .                | .                |
| $749700_2 = \chi_{102,1}$  | .               | .               | .               | .                | .                | .                | 1                | .                | 1                | .                |
| $908820_1 = \chi_{109,0}$  | .               | .               | .               | .                | .                | .                | .                | 1                | .                | 1                |
| $1454112_2 = \chi_{131,1}$ | .               | .               | .               | .                | .                | .                | .                | .                | 1                | .                |
| $1570800_1 = \chi_{133,0}$ | .               | .               | .               | .                | .                | .                | .                | .                | .                | 1                |
| $1832600_1 = \chi_{141,0}$ | .               | .               | .               | .                | .                | .                | .                | .                | .                | .                |

| <b>(Block 3:)</b>          | $\varphi_{108,1}$ | $\varphi_{110,0}$ |                              |
|----------------------------|-------------------|-------------------|------------------------------|
| $16_1 = \chi_{2,0}$        | .                 | .                 | $\varphi_{2,0} = 16_1$       |
| $120_2 = \chi_{4,1}$       | .                 | .                 | $\varphi_{4,1} = 120_2$      |
| $1700_1 = \chi_{8,0}$      | .                 | .                 | $\varphi_{8,0} = 1684_1$     |
| $5236_2 = \chi_{14,1}$     | .                 | .                 | $\varphi_{15,1} = 5116_2$    |
| $20400_2 = \chi_{25,1}$    | .                 | .                 | $\varphi_{22,1} = 15284_2$   |
| $62832_1 = \chi_{34,0}$    | .                 | .                 | $\varphi_{34,0} = 61148_1$   |
| $209440_2 = \chi_{60,1}$   | .                 | .                 | $\varphi_{58,1} = 194156_2$  |
| $333200_1 = \chi_{73,0}$   | .                 | .                 | $\varphi_{68,0} = 272052_1$  |
| $749700_2 = \chi_{102,1}$  | .                 | .                 | $\varphi_{88,1} = 555544_2$  |
| $908820_1 = \chi_{109,0}$  | .                 | .                 | $\varphi_{95,0} = 636768_1$  |
| $1454112_2 = \chi_{131,1}$ | 1                 | .                 | $\varphi_{108,1} = 898568_2$ |
| $1570800_1 = \chi_{133,0}$ | .                 | 1                 | $\varphi_{110,0} = 934032_1$ |
| $1832600_1 = \chi_{141,0}$ | 1                 | 1                 |                              |

| <b>Block 4:</b>            | $\varphi_{2,1}$ | $\varphi_{4,0}$ | $\varphi_{8,1}$ | $\varphi_{15,0}$ | $\varphi_{22,0}$ | $\varphi_{34,1}$ | $\varphi_{58,0}$ | $\varphi_{68,1}$ | $\varphi_{88,0}$ | $\varphi_{95,1}$ |
|----------------------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| $16_2 = \chi_{2,1}$        | 1               | .               | .               | .                | .                | .                | .                | .                | .                | .                |
| $120_1 = \chi_{4,0}$       | .               | 1               | .               | .                | .                | .                | .                | .                | .                | .                |
| $1700_2 = \chi_{8,1}$      | 1               | .               | 1               | .                | .                | .                | .                | .                | .                | .                |
| $5236_1 = \chi_{14,0}$     | .               | 1               | .               | 1                | .                | .                | .                | .                | .                | .                |
| $20400_1 = \chi_{25,0}$    | .               | .               | .               | 1                | 1                | .                | .                | .                | .                | .                |
| $62832_2 = \chi_{34,1}$    | .               | .               | 1               | .                | .                | 1                | .                | .                | .                | .                |
| $209440_1 = \chi_{60,0}$   | .               | .               | .               | .                | 1                | .                | 1                | .                | .                | .                |
| $333200_2 = \chi_{73,1}$   | .               | .               | .               | .                | .                | 1                | .                | 1                | .                | .                |
| $749700_1 = \chi_{102,0}$  | .               | .               | .               | .                | .                | .                | 1                | .                | 1                | .                |
| $908820_2 = \chi_{109,1}$  | .               | .               | .               | .                | .                | .                | .                | 1                | .                | 1                |
| $1454112_1 = \chi_{131,0}$ | .               | .               | .               | .                | .                | .                | .                | .                | 1                | .                |
| $1570800_2 = \chi_{133,1}$ | .               | .               | .               | .                | .                | .                | .                | .                | .                | 1                |
| $1832600_2 = \chi_{141,1}$ | .               | .               | .               | .                | .                | .                | .                | .                | .                | .                |

| <b>(Block 4:)</b>          | $\varphi_{108,0}$ | $\varphi_{110,1}$ |                     |            |
|----------------------------|-------------------|-------------------|---------------------|------------|
| $16_2 = \chi_{2,1}$        | .                 | .                 | $\varphi_{2,1} =$   | $16_2$     |
| $120_1 = \chi_{4,0}$       | .                 | .                 | $\varphi_{4,0} =$   | $120_1$    |
| $1700_2 = \chi_{8,1}$      | .                 | .                 | $\varphi_{8,1} =$   | $1684_2$   |
| $5236_1 = \chi_{14,0}$     | .                 | .                 | $\varphi_{15,0} =$  | $5116_1$   |
| $20400_1 = \chi_{25,0}$    | .                 | .                 | $\varphi_{22,0} =$  | $15284_1$  |
| $62832_2 = \chi_{34,1}$    | .                 | .                 | $\varphi_{34,1} =$  | $61148_2$  |
| $209440_1 = \chi_{60,0}$   | .                 | .                 | $\varphi_{58,0} =$  | $194156_1$ |
| $333200_2 = \chi_{73,1}$   | .                 | .                 | $\varphi_{68,1} =$  | $272052_2$ |
| $749700_1 = \chi_{102,0}$  | .                 | .                 | $\varphi_{88,0} =$  | $555544_1$ |
| $908820_2 = \chi_{109,1}$  | .                 | .                 | $\varphi_{95,1} =$  | $636768_2$ |
| $1454112_1 = \chi_{131,0}$ | 1                 | .                 | $\varphi_{108,0} =$ | $898568_1$ |
| $1570800_2 = \chi_{133,1}$ | .                 | 1                 | $\varphi_{110,1} =$ | $934032_2$ |
| $1832600_2 = \chi_{141,1}$ | 1                 | 1                 |                     |            |

| <b>Block 5:</b>            | $\varphi_{3,0}$ | $\varphi_{3,1}$ | $\varphi_{5,0}$ | $\varphi_{5,1}$ | $\varphi_{30,0}$ | $\varphi_{30,1}$ | $\varphi_{57,0}$ | $\varphi_{57,1}$ | $\varphi_{83,0}$ | $\varphi_{83,1}$ |
|----------------------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|
| $119_1 = \chi_{3,0}$       | 1               | .               | .               | .               | .                | .                | .                | .                | .                | .                |
| $119_2 = \chi_{3,1}$       | .               | 1               | .               | .               | .                | .                | .                | .                | .                | .                |
| $544_1 = \chi_{5,0}$       | 1               | .               | 1               | .               | .                | .                | .                | .                | .                | .                |
| $544_2 = \chi_{5,1}$       | .               | 1               | .               | 1               | .                | .                | .                | .                | .                | .                |
| $35700_1 = \chi_{29,0}$    | .               | .               | 1               | .               | 1                | .                | .                | .                | .                | .                |
| $35700_2 = \chi_{29,1}$    | .               | .               | .               | 1               | .                | 1                | .                | .                | .                | .                |
| $205632_1 = \chi_{59,0}$   | .               | .               | .               | .               | 1                | .                | 1                | .                | .                | .                |
| $205632_2 = \chi_{59,1}$   | .               | .               | .               | .               | .                | 1                | .                | 1                | .                | .                |
| $586432_1 = \chi_{91,0}$   | .               | .               | .               | .               | .                | .                | 1                | .                | 1                | .                |
| $586432_2 = \chi_{91,1}$   | .               | .               | .               | .               | .                | .                | .                | 1                | .                | 1                |
| $1047200_1 = \chi_{115,0}$ | .               | .               | .               | .               | .                | .                | .                | .                | 1                | .                |
| $1047200_2 = \chi_{115,1}$ | .               | .               | .               | .               | .                | .                | .                | .                | .                | 1                |
| $1262250_1 = \chi_{94+}$   | .               | .               | .               | .               | .                | .                | .                | .                | .                | .                |

| <b>(Block 5:)</b>          | $\varphi_{94,0}$ | $\varphi_{94,1}$ |                             |
|----------------------------|------------------|------------------|-----------------------------|
| $119_1 = \chi_{3,0}$       | .                | .                | $\varphi_{3,0} = 119_1$     |
| $119_2 = \chi_{3,1}$       | .                | .                | $\varphi_{3,1} = 119_2$     |
| $544_1 = \chi_{5,0}$       | .                | .                | $\varphi_{5,0} = 425_1$     |
| $544_2 = \chi_{5,1}$       | .                | .                | $\varphi_{5,1} = 425_2$     |
| $35700_1 = \chi_{29,0}$    | .                | .                | $\varphi_{30,0} = 35275_1$  |
| $35700_2 = \chi_{29,1}$    | .                | .                | $\varphi_{30,1} = 35275_2$  |
| $205632_1 = \chi_{59,0}$   | .                | .                | $\varphi_{57,0} = 170357_1$ |
| $205632_2 = \chi_{59,1}$   | .                | .                | $\varphi_{57,1} = 170357_2$ |
| $586432_1 = \chi_{91,0}$   | .                | .                | $\varphi_{83,0} = 416075_1$ |
| $586432_2 = \chi_{91,1}$   | .                | .                | $\varphi_{83,1} = 416075_2$ |
| $1047200_1 = \chi_{115,0}$ | 1                | .                | $\varphi_{94,0} = 631125_1$ |
| $1047200_2 = \chi_{115,1}$ | .                | 1                | $\varphi_{94,1} = 631125_2$ |
| $1262250_1 = \chi_{94+}$   | 1                | 1                |                             |