

$S_8(2) \pmod{17}$

| | blocks | defect | matrix |
|-------|--------|--------|-------------------------------------|
| $G :$ | 1 | 1 | 10×8 |
| | 2 | 0 | $51_1 = \chi_3, \varphi_3$ |
| | 3 | 0 | $85_1 = \chi_4, \varphi_4$ |
| | 4 | 0 | $119_1 = \chi_5, \varphi_5$ |
| | 5 | 0 | $238_1 = \chi_7, \varphi_7$ |
| | 6 | 0 | $510_1 = \chi_8, \varphi_8$ |
| | 7 | 0 | $595_1 = \chi_9, \varphi_9$ |
| | 8 | 0 | $595_2 = \chi_{10}, \varphi_{10}$ |
| | 9 | 0 | $918_1 = \chi_{11}, \varphi_{11}$ |
| | 10 | 0 | $1190_1 = \chi_{12}, \varphi_{12}$ |
| | 11 | 0 | $1275_1 = \chi_{13}, \varphi_{13}$ |
| | 12 | 0 | $1785_1 = \chi_{15}, \varphi_{15}$ |
| | 13 | 0 | $1785_2 = \chi_{16}, \varphi_{16}$ |
| | 14 | 0 | $2295_1 = \chi_{17}, \varphi_{17}$ |
| | 15 | 0 | $2856_1 = \chi_{18}, \varphi_{18}$ |
| | 16 | 0 | $2856_2 = \chi_{19}, \varphi_{19}$ |
| | 17 | 0 | $2975_1 = \chi_{20}, \varphi_{20}$ |
| | 18 | 0 | $2975_2 = \chi_{21}, \varphi_{21}$ |
| | 19 | 0 | $3213_1 = \chi_{22}, \varphi_{22}$ |
| | 20 | 0 | $3213_2 = \chi_{23}, \varphi_{23}$ |
| | 21 | 0 | $3400_1 = \chi_{24}, \varphi_{24}$ |
| | 22 | 0 | $3570_1 = \chi_{25}, \varphi_{25}$ |
| | 23 | 0 | $3570_2 = \chi_{26}, \varphi_{26}$ |
| | 24 | 0 | $3570_3 = \chi_{27}, \varphi_{27}$ |
| | 25 | 0 | $3808_1 = \chi_{28}, \varphi_{28}$ |
| | 26 | 0 | $4760_1 = \chi_{30}, \varphi_{30}$ |
| | 27 | 0 | $5712_1 = \chi_{31}, \varphi_{31}$ |
| | 28 | 0 | $5950_1 = \chi_{32}, \varphi_{32}$ |
| | 29 | 0 | $5950_2 = \chi_{33}, \varphi_{33}$ |
| | 30 | 0 | $7140_1 = \chi_{34}, \varphi_{34}$ |
| | 31 | 0 | $8160_1 = \chi_{35}, \varphi_{36}$ |
| | 32 | 0 | $8925_1 = \chi_{36}, \varphi_{37}$ |
| | 33 | 0 | $8925_2 = \chi_{37}, \varphi_{38}$ |
| | 34 | 0 | $9639_1 = \chi_{39}, \varphi_{39}$ |
| | 35 | 0 | $10200_1 = \chi_{40}, \varphi_{40}$ |
| | 36 | 0 | $11900_1 = \chi_{41}, \varphi_{41}$ |

| | blocks | defect | matrix |
|--|--------|--------|-------------------------------------|
| | 37 | 0 | $11900_2 = \chi_{42}, \varphi_{42}$ |
| | 38 | 0 | $13056_1 = \chi_{43}, \varphi_{43}$ |
| | 39 | 0 | $13600_1 = \chi_{44}, \varphi_{44}$ |
| | 40 | 0 | $14280_1 = \chi_{45}, \varphi_{45}$ |
| | 41 | 0 | $14280_2 = \chi_{46}, \varphi_{46}$ |
| | 42 | 0 | $14688_1 = \chi_{47}, \varphi_{47}$ |
| | 43 | 0 | $16065_1 = \chi_{48}, \varphi_{48}$ |
| | 44 | 0 | $16065_2 = \chi_{49}, \varphi_{49}$ |
| | 45 | 0 | $16065_3 = \chi_{50}, \varphi_{50}$ |
| | 46 | 0 | $16065_4 = \chi_{51}, \varphi_{51}$ |
| | 47 | 0 | $16065_5 = \chi_{52}, \varphi_{52}$ |
| | 48 | 0 | $17850_1 = \chi_{53}, \varphi_{53}$ |
| | 49 | 0 | $17850_2 = \chi_{54}, \varphi_{54}$ |
| | 50 | 0 | $18360_1 = \chi_{55}, \varphi_{55}$ |
| | 51 | 0 | $19040_1 = \chi_{56}, \varphi_{56}$ |
| | 52 | 0 | $23800_1 = \chi_{57}, \varphi_{57}$ |
| | 53 | 0 | $23800_2 = \chi_{58}, \varphi_{58}$ |
| | 54 | 0 | $26775_1 = \chi_{59}, \varphi_{59}$ |
| | 55 | 0 | $26775_2 = \chi_{60}, \varphi_{60}$ |
| | 56 | 0 | $28560_1 = \chi_{61}, \varphi_{61}$ |
| | 57 | 0 | $28917_1 = \chi_{62}, \varphi_{62}$ |
| | 58 | 0 | $30464_1 = \chi_{63}, \varphi_{63}$ |
| | 59 | 0 | $32130_1 = \chi_{64}, \varphi_{65}$ |
| | 60 | 0 | $32130_2 = \chi_{65}, \varphi_{66}$ |
| | 61 | 0 | $32130_3 = \chi_{66}, \varphi_{67}$ |
| | 62 | 0 | $34425_1 = \chi_{67}, \varphi_{68}$ |
| | 63 | 0 | $34425_2 = \chi_{68}, \varphi_{69}$ |
| | 64 | 0 | $38080_1 = \chi_{70}, \varphi_{71}$ |
| | 65 | 0 | $38556_1 = \chi_{71}, \varphi_{72}$ |
| | 66 | 0 | $43520_1 = \chi_{74}, \varphi_{73}$ |
| | 67 | 0 | $47600_1 = \chi_{75}, \varphi_{74}$ |
| | 68 | 0 | $48195_1 = \chi_{76}, \varphi_{75}$ |
| | 69 | 0 | $51408_1 = \chi_{77}, \varphi_{76}$ |
| | 70 | 0 | $53550_1 = \chi_{78}, \varphi_{77}$ |
| | 71 | 0 | $57120_1 = \chi_{79}, \varphi_{78}$ |
| | 72 | 0 | $68850_1 = \chi_{81}, \varphi_{79}$ |

| Block 1: | φ_1 | φ_2 | φ_6 | φ_{14} | φ_{29} | φ_{35} | φ_{64} | φ_{70} |
|-----------------------|-------------|-------------|-------------|----------------|----------------|----------------|----------------|----------------|
| $1_1 = \chi_1$ | 1 | . | . | . | . | . | . | . |
| $35_1 = \chi_2$ | . | 1 | . | . | . | . | . | . |
| $135_1 = \chi_6$ | 1 | . | 1 | . | . | . | . | . |
| $1512_1 = \chi_{14}$ | . | 1 | . | 1 | . | . | . | . |
| $4200_1 = \chi_{29}$ | . | . | 1 | . | 1 | . | . | . |
| $8960_1 = \chi_{38}$ | . | . | . | 1 | . | 1 | . | . |
| $34560_1 = \chi_{69}$ | . | . | . | . | 1 | . | 1 | . |
| $42525_1 = \chi_{72}$ | . | . | . | . | . | 1 | . | 1 |
| $42525_2 = \chi_{73}$ | . | . | . | . | . | 1 | . | 1 |
| $65536_1 = \chi_{80}$ | . | . | . | . | . | . | 1 | 1 |

$$\begin{aligned}
\varphi_1 &= 1_1 \\
\varphi_2 &= 35_1 \\
\varphi_6 &= 134_1 \\
\varphi_{14} &= 1477_1 \\
\varphi_{29} &= 4066_1 \\
\varphi_{35} &= 7483_1 \\
\varphi_{64} &= 30494_1 \\
\varphi_{70} &= 35042_1
\end{aligned}$$