# $Fi_{23}$ (mod 17)

| | blocks | defect | matrix |
|---|---|---|---|
| $G:$ | 1 | 1 | $17 \times 16$ |
| | 2 | 0 | $782_1 = \chi_2, \varphi_2$ |
| | 3 | 0 | $5083_1 = \chi_4, \varphi_4$ |
| | 4 | 0 | $25806_1 = \chi_5, \varphi_5$ |
| | 5 | 0 | $60996_1 = \chi_7, \varphi_7$ |
| | 6 | 0 | $106743_1 = \chi_8, \varphi_8$ |
| | 7 | 0 | $111826_1 = \chi_9, \varphi_9$ |
| | 8 | 0 | $274482_1 = \chi_{10}, \varphi_{10}$ |
| | 9 | 0 | $279565_1 = \chi_{11}, \varphi_{11}$ |
| | 10 | 0 | $752675_1 = \chi_{12}, \varphi_{12}$ |
| | 11 | 0 | $812889_1 = \chi_{14}, \varphi_{14}$ |
| | 12 | 0 | $850850_1 = \chi_{17}, \varphi_{17}$ |
| | $13 = \overline{12}$ | 0 | $850850_2 = \chi_{18}, \varphi_{18}$ |
| | 14 | 0 | $1677390_1 = \chi_{19}, \varphi_{19}$ |
| | 15 | 0 | $1951872_1 = \chi_{20}, \varphi_{20}$ |
| | 16 | 0 | $2236520_1 = \chi_{21}, \varphi_{21}$ |
| | 17 | 0 | $2322540_1 = \chi_{22}, \varphi_{22}$ |
| | 18 | 0 | $3913910_1 = \chi_{23}, \varphi_{23}$ |
| | 19 | 0 | $6709560_1 = \chi_{25}, \varphi_{25}$ |
| | 20 | 0 | $7468032_1 = \chi_{26}, \varphi_{26}$ |
| | 21 | 0 | $8783424_1 = \chi_{27}, \varphi_{27}$ |
| | 22 | 0 | $9108736_1 = \chi_{28}, \varphi_{28}$ |
| | $23 = \overline{22}$ | 0 | $9108736_2 = \chi_{29}, \varphi_{29}$ |
| | 24 | 0 | $10567557_1 = \chi_{30}, \varphi_{30}$ |
| | 25 | 0 | $10674300_1 = \chi_{31}, \varphi_{31}$ |
| | 26 | 0 | $12077208_1 = \chi_{32}, \varphi_{32}$ |
| | 27 | 0 | $15096510_1 = \chi_{33}, \varphi_{33}$ |
| | 28 | 0 | $17892160_1 = \chi_{34}, \varphi_{34}$ |
| | 29 | 0 | $18812574_1 = \chi_{35}, \varphi_{35}$ |
| | 30 | 0 | $20322225_1 = \chi_{36}, \varphi_{36}$ |
| | 31 | 0 | $21135114_1 = \chi_{37}, \varphi_{37}$ |
| | 32 | 0 | $21348600_1 = \chi_{38}, \varphi_{38}$ |
| | 33 | 0 | $22644765_1 = \chi_{39}, \varphi_{39}$ |
| | 34 | 0 | $26838240_1 = \chi_{40}, \varphi_{40}$ |
| | 35 | 0 | $28464800_1 = \chi_{41}, \varphi_{41}$ |
| | 36 | 0 | $29354325_1 = \chi_{42}, \varphi_{42}$ |
| | 37 | 0 | $35225190_1 = \chi_{43}, \varphi_{43}$ |
| | 38 | 0 | $37573536_1 = \chi_{44}, \varphi_{44}$ |
| | 39 | 0 | $40840800_1 = \chi_{45}, \varphi_{45}$ |
| | 40 | 0 | $42270228_1 = \chi_{46}, \varphi_{46}$ |

| | blocks | defect | matrix |
|---|---|---|---|
| | 41 | 0 | $48034350_1 = \chi_{47}, \varphi_{47}$ |
| | 42 | 0 | $48308832_1 = \chi_{48}, \varphi_{48}$ |
| | 43 | 0 | $55740960_1 = \chi_{49}, \varphi_{49}$ |
| | 44 | 0 | $56360304_1 = \chi_{50}, \varphi_{50}$ |
| | 45 | 0 | $56360304_2 = \chi_{51}, \varphi_{51}$ |
| | 46 | 0 | $57254912_1 = \chi_{52}, \varphi_{52}$ |
| | 47 | 0 | $58708650_1 = \chi_{53}, \varphi_{53}$ |
| | 48 | 0 | $58708650_2 = \chi_{54}, \varphi_{54}$ |
| | 49 | 0 | $65875680_1 = \chi_{55}, \varphi_{56}$ |
| | 50 | 0 | $73531392_1 = \chi_{56}, \varphi_{57}$ |
| | 51 | 0 | $73531392_2 = \chi_{57}, \varphi_{58}$ |
| | 52 | 0 | $78278200_1 = \chi_{58}, \varphi_{59}$ |
| | 53 | 0 | $93933840_1 = \chi_{59}, \varphi_{61}$ |
| | 54 | 0 | $133398252_1 = \chi_{61}, \varphi_{63}$ |
| | 55 | 0 | $166559744_1 = \chi_{64}, \varphi_{67}$ |
| | 56 | 0 | $166559744_2 = \chi_{65}, \varphi_{68}$ |
| | 57 | 0 | $176125950_1 = \chi_{66}, \varphi_{69}$ |
| | 58 | 0 | $176125950_2 = \chi_{67}, \varphi_{70}$ |
| | 59 | 0 | $203802885_1 = \chi_{68}, \varphi_{72}$ |
| | 60 | 0 | $207793431_1 = \chi_{69}, \varphi_{73}$ |
| | 61 | 0 | $211351140_1 = \chi_{70}, \varphi_{74}$ |
| | 62 | 0 | $216154575_1 = \chi_{71}, \varphi_{75}$ |
| | 63 | 0 | $216770400_1 = \chi_{72}, \varphi_{76}$ |
| | 64 | 0 | $244563462_1 = \chi_{73}, \varphi_{77}$ |
| | 65 | 0 | $263376036_1 = \chi_{74}, \varphi_{78}$ |
| | 66 | 0 | $264188925_1 = \chi_{75}, \varphi_{79}$ |
| | 67 | 0 | $286274560_1 = \chi_{78}, \varphi_{80}$ |
| | 68 | 0 | $289027200_1 = \chi_{80}, \varphi_{81}$ |
| | 69 | 0 | $289027200_2 = \chi_{81}, \varphi_{82}$ |
| | 70 | 0 | $289103904_1 = \chi_{82}, \varphi_{83}$ |
| | 71 | 0 | $313112800_1 = \chi_{83}, \varphi_{84}$ |
| | 72 | 0 | $313112800_2 = \chi_{84}, \varphi_{85}$ |
| | 73 | 0 | $313112800_3 = \chi_{85}, \varphi_{86}$ |
| | 74 | 0 | $322058880_1 = \chi_{86}, \varphi_{87}$ |
| | 75 | 0 | $336061440_1 = \chi_{87}, \varphi_{88}$ |
| | 76 | 0 | $341577600_1 = \chi_{88}, \varphi_{89}$ |
| | 77 | 0 | $343529472_1 = \chi_{89}, \varphi_{90}$ |
| | 78 | 0 | $352251900_1 = \chi_{90}, \varphi_{91}$ |
| | 79 | 0 | $362316240_1 = \chi_{91}, \varphi_{94}$ |
| | 80 | 0 | $496897335_1 = \chi_{93}, \varphi_{95}$ |

| | blocks | defect | matrix |
|---|---|---|---|
| | 81 | 0 | $526752072_1 = \chi_{96}, \varphi_{96}$ |
| | 82 | 0 | $528377850_1 = \chi_{97}, \varphi_{97}$ |

| **Block 1:** | $\varphi_1$ | $\varphi_3$ | $\varphi_6$ | $\varphi_{13}$ | $\varphi_{15}$ | $\varphi_{16}$ | $\varphi_{24}$ | $\varphi_{55}$ | $\varphi_{60}$ | $\varphi_{62}$ | $\varphi_{64}$ | $\varphi_{65}$ | $\varphi_{66}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $1_1 = \chi_1$ | 1 | . | . | . | . | . | . | . | . | . | . | . | . |
| $3588_1 = \chi_3$ | . | 1 | . | . | . | . | . | . | . | . | . | . | . |
| $30888_1 = \chi_6$ | 1 | . | 1 | . | . | . | . | . | . | . | . | . | . |
| $789360_1 = \chi_{13}$ | . | 1 | . | 1 | . | . | . | . | . | . | . | . | . |
| $837200_1 = \chi_{15}$ | . | . | . | . | 1 | . | . | . | . | . | . | . | . |
| $837200_2 = \chi_{16}$ | . | . | . | . | . | 1 | . | . | . | . | . | . | . |
| $5533110_1 = \chi_{24}$ | . | . | 1 | . | . | . | 1 | . | . | . | . | . | . |
| $97976320_1 = \chi_{60}$ | . | . | . | . | . | . | 1 | . | 1 | . | . | . | . |
| $153014400_1 = \chi_{62}$ | . | . | . | 1 | . | . | . | . | . | . | . | . | 1 |
| $153014400_2 = \chi_{63}$ | . | . | . | . | . | . | . | 1 | 1 | . | . | . | . |
| $264536064_1 = \chi_{76}$ | . | . | . | . | 1 | 1 | . | 1 | . | . | . | . | . |
| $264536064_2 = \chi_{77}$ | . | . | . | . | . | . | . | . | . | 1 | 1 | . | . |
| $287721720_1 = \chi_{79}$ | . | . | . | . | . | . | . | . | . | . | 1 | 1 | . |
| $476702577_1 = \chi_{92}$ | . | . | . | . | . | . | . | . | . | 1 | . | . | . |
| $504627200_1 = \chi_{94}$ | . | . | . | . | . | . | . | . | . | . | . | . | 1 |
| $504627200_2 = \chi_{95}$ | . | . | . | . | . | . | . | . | . | . | . | 1 | . |
| $559458900_1 = \chi_{98}$ | . | . | . | . | . | . | . | . | . | . | . | . | . |

| (**Block 1:**) | $\varphi_{71}$ | $\varphi_{92}$ | $\varphi_{93}$ |
|---|---|---|---|
| $1_1 = \chi_1$ | . | . | . |
| $3588_1 = \chi_3$ | . | . | . |
| $30888_1 = \chi_6$ | . | . | . |
| $789360_1 = \chi_{13}$ | . | . | . |
| $837200_1 = \chi_{15}$ | . | . | . |
| $837200_2 = \chi_{16}$ | . | . | . |
| $5533110_1 = \chi_{24}$ | . | . | . |
| $97976320_1 = \chi_{60}$ | . | . | . |
| $153014400_1 = \chi_{62}$ | . | . | . |
| $153014400_2 = \chi_{63}$ | . | . | . |
| $264536064_1 = \chi_{76}$ | 1 | . | . |
| $264536064_2 = \chi_{77}$ | . | . | . |
| $287721720_1 = \chi_{79}$ | . | . | . |
| $476702577_1 = \chi_{92}$ | . | 1 | . |
| $504627200_1 = \chi_{94}$ | . | 1 | . |
| $504627200_2 = \chi_{95}$ | . | . | 1 |
| $559458900_1 = \chi_{98}$ | 1 | . | 1 |

$$
\begin{aligned}
\varphi_{1} &= 1_1 \\
\varphi_{3} &= 3588_1 \\
\varphi_{6} &= 30887_1 \\
\varphi_{13} &= 785772_1 \\
\varphi_{15} &= 837200_1 \\
\varphi_{16} &= 837200_2 \\
\varphi_{24} &= 5502223_1 \\
\varphi_{55} &= 60540303_1 \\
\varphi_{60} &= 92474097_1 \\
\varphi_{62} &= 124304005_1 \\
\varphi_{64} &= 140232059_1 \\
\varphi_{65} &= 147489661_1 \\
\varphi_{66} &= 152228628_1 \\
\varphi_{71} &= 202321361_1 \\
\varphi_{92} &= 352398572_1 \\
\varphi_{93} &= 357137539_1
\end{aligned}
$$