$HN.2 \pmod{19}$

	blocks	defect	matrix
G:	1	1	19 × 18
	2	0	$266_1 = \chi_{2+}, \varphi_{2+}$
	3	0	$760_1 = \chi_{4,0}, \varphi_{4,0}$
	4	0	$760_2 = \chi_{4,1}, \varphi_{4,1}$
	5	0	$3344_1 = \chi_{5,0}, \varphi_{5,0}$
	6	0	$3344_2 = \chi_{5,1}, \varphi_{5,1}$
	7	0	$17556_1 = \chi_{6+}, \varphi_{6+}$
	8	0	$9405_1 = \chi_{9,0}, \varphi_{9,0}$
	9	0	$9405_2 = \chi_{9,1}, \varphi_{9,1}$
	10	0	$16929_1 = \chi_{10,0}, \varphi_{10,0}$
	11	0	$16929_2 = \chi_{10,1}, \varphi_{10,1}$
	12	0	$70224_1 = \chi_{11+}, \varphi_{11+}$
	13	0	$ 131670_1 = \chi_{13+}, \varphi_{13+} $
	14	0	$ 138510_1 = \chi_{15+}, \varphi_{15+} $
	15	0	$214016_1 = \chi_{17,0}, \varphi_{17,0}$
	16	0	$214016_2 = \chi_{17,1}, \varphi_{17,1}$
	17	0	$267520_1 = \chi_{18,0}, \varphi_{18,0}$
	18	0	$267520_2 = \chi_{18,1}, \varphi_{18,1}$
	19	0	$270864_1 = \chi_{19,0}, \varphi_{19,0}$
	20	0	$270864_2 = \chi_{19,1}, \varphi_{19,1}$
	21	0	$365750_1 = \chi_{20,0}, \varphi_{20,0}$
	22	0	$365750_2 = \chi_{20,1}, \varphi_{20,1}$
	23	0	$749056_1 = \chi_{21+}, \varphi_{21+}$
	24	0	$406296_1 = \chi_{23,0}, \varphi_{23,0}$
	25	0	$406296_2 = \chi_{23,1}, \varphi_{23,1}$
	26	0	$653125_1 = \chi_{24,0}, \varphi_{24,0}$
	27	0	$653125_2 = \chi_{24,1}, \varphi_{24,1}$
	28 29	$\begin{bmatrix} 0 \\ 0 \end{bmatrix}$	$1436400_1 = \chi_{27+}, \varphi_{26+}$
	$\frac{29}{30}$	0	$1053360_1 = \chi_{29,0}, \varphi_{28,0}$
	31	0	
	32	0	$\begin{array}{ c c c c c c }\hline 2135034_1 &= \chi_{30+}, \varphi_{29+} \\ 1185030_1 &= \chi_{32,0}, \varphi_{32,0} \end{array}$
	33	0	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$
	34	0	$\begin{vmatrix} 1354320_1 = \chi_{33,0}, \varphi_{34,0} \\ 1354320_1 = \chi_{33,0}, \varphi_{34,0} \end{vmatrix}$
	35	0	$\begin{vmatrix} 1354320_1 = \chi_{33,0}, \varphi_{34,0} \\ 1354320_2 = \chi_{33,1}, \varphi_{34,1} \end{vmatrix}$
	36	0	$\begin{vmatrix} 1364920_2 - \chi_{33,1}, \varphi_{34,1} \\ 1361920_1 - \chi_{34,0}, \varphi_{35,0} \end{vmatrix}$
	37	0	$\begin{vmatrix} 1361920_1 - \chi_{34,0}, \varphi_{35,0} \\ 1361920_2 - \chi_{34,1}, \varphi_{35,1} \end{vmatrix}$
	38	0	$\begin{vmatrix} 13013202 - \chi_{34,1}, \varphi_{35,1} \\ 2723840_1 - \chi_{35+}, \varphi_{36+} \end{vmatrix}$
	39	0	$\begin{vmatrix} 27256161 - \chi_{35+}, \varphi_{36+} \\ 1575936_1 - \chi_{37,0}, \varphi_{38,0} \end{vmatrix}$
	40	0	$\begin{vmatrix} 1575936_1 & \chi_{37,0}, \varphi_{38,0} \\ 1575936_2 & \chi_{37,1}, \varphi_{38,1} \end{vmatrix}$

blocks	defect	matrix
41	0	$1625184_1 = \chi_{38,0}, \varphi_{40,0}$
42	0	$1625184_2 = \chi_{38,1}, \varphi_{40,1}$
43	0	$2031480_1 = \chi_{39,0}, \varphi_{41,0}$
44	0	$2031480_2 = \chi_{39,1}, \varphi_{41,1}$
45	0	$2375000_1 = \chi_{40,0}, \varphi_{43,0}$
46	0	$2375000_2 = \chi_{40,1}, \varphi_{43,1}$
47	0	$2407680_1 = \chi_{41,0}, \varphi_{44,0}$
48	0	$2407680_2 = \chi_{41,1}, \varphi_{44,1}$
49	0	$3424256_1 = \chi_{46,0}, \varphi_{46,0}$
50	0	$3424256_2 = \chi_{46,1}, \varphi_{46,1}$
51	0	$3878280_1 = \chi_{47,0}, \varphi_{47,0}$
52	0	$3878280_2 = \chi_{47,1}, \varphi_{47,1}$
53	0	$4156250_1 = \chi_{48,0}, \varphi_{49,0}$
54	0	$4156250_2 = \chi_{48,1}, \varphi_{49,1}$
55	0	$4809375_1 = \chi_{50,0}, \varphi_{50,0}$
56	0	$4809375_2 = \chi_{50,1}, \varphi_{50,1}$
57	0	$5332635_1 = \chi_{53,0}, \varphi_{51,0}$
58	0	$5332635_2 = \chi_{53,1}, \varphi_{51,1}$
59	0	$5878125_1 = \chi_{54,0}, \varphi_{52,0}$
60	0	$5878125_2 = \chi_{54,1}, \varphi_{52,1}$

Block 1:	$\varphi_{1,0}$	$\varphi_{1,1}$	$\varphi_{8,0}$	$\varphi_{8,1}$	$\varphi_{25,0}$	$arphi_{25,1}$	$\varphi_{31,0}$	$\varphi_{31,1}$	$\varphi_{33,0}$	$\varphi_{33,1}$
$1_1 = \chi_{1,0}$	1									
$1_2 = \chi_{1,1}$		1					•			•
$8910_1 = \chi_{8,0}$	1		1							
$8910_2 = \chi_{8,1}$		1	•	1	•			•		•
$1312500_1 = \chi_{25+}$					1	1				
$2661120_1 = \chi_{42,0}$							1			
$2661120_2 = \chi_{42,1}$								1		
$2784375_1 = \chi_{43,0}$									1	
$2784375_2 = \chi_{43,1}$										1
$2985984_1 = \chi_{44,0}$			1							
$2985984_2 = \chi_{44,1}$				1						
$3200000_1 = \chi_{45,0}$							1			
$3200000_2 = \chi_{45,1}$								1		
$4561920_1 = \chi_{49,0}$				•	1	•	•	•	•	•
$4561920_2 = \chi_{49,1}$				•	•	1	•	•	•	•
$5103000_1 = \chi_{51,0}$				•	•	•	•	•	•	•
$5103000_2 = \chi_{51,1}$					•	•	•	•	•	•
$5103000_3 = \chi_{52,0}$					•	•	•	•	•	1
$5103000_4 = \chi_{52,1}$		•	•	•	•	•	•	•	1	

(Block 1:)	$\varphi_{39,0}$	$\varphi_{39,1}$	$\varphi_{42,0}$	$\varphi_{42,1}$	$\varphi_{45,0}$	$\varphi_{45,1}$	$\varphi_{48,0}$	$\varphi_{48,1}$
$1_1 = \chi_{1,0}$								
$1_2 = \chi_{1,1}$		•	•	•	•	•	•	
$8910_1 = \chi_{8,0}$								
$8910_2 = \chi_{8,1}$								
$1312500_1 = \chi_{25+}$								
$2661120_1 = \chi_{42,0}$		1	•	•			•	
$2661120_2 = \chi_{42,1}$	1		•	•			•	
$2784375_1 = \chi_{43,0}$	1		•	•			•	
$2784375_2 = \chi_{43,1}$		1	•	•			•	
$2985984_1 = \chi_{44,0}$			•	•		1	•	
$2985984_2 = \chi_{44,1}$			•	•	1		•	
$3200000_1 = \chi_{45,0}$			1	•			•	
$3200000_2 = \chi_{45,1}$			•	1			•	
$4561920_1 = \chi_{49,0}$			•	•			1	
$4561920_2 = \chi_{49,1}$			•	•			•	1
$5103000_1 = \chi_{51,0}$			•	1	1		٠	
$5103000_2 = \chi_{51,1}$			1	•		1	٠	
$5103000_3 = \chi_{52,0}$			•	•			1	
$5103000_4 = \chi_{52,1}$			•	•			•	1

$\varphi_{1,0}$	=	1_1	$\varphi_{33,1}$	=	1197330_2
$\varphi_{1,1}$	=	1_2	$\varphi_{39,0}$	=	1587045_1
$arphi_{8,0}$	=	8909_1	$\varphi_{39,1}$	=	1587045_2
$\varphi_{8,1}$	=	8909_2	$\varphi_{42,0}$	=	2125925_1
$\varphi_{25,0}$	=	656250_1	$\varphi_{42,1}$	=	2125925_2
$\varphi_{25,1}$	=	656250_2	$\varphi_{45,0}$	=	2977075_1
$\varphi_{31,0}$	=	1074075_1	$\varphi_{45,1}$	=	2977075_2
$\varphi_{31,1}$	=	1074075_2	$\varphi_{48,0}$	=	3905670_1
$\varphi_{33,0}$	=	1197330_1	$\varphi_{48,1}$	=	3905670_2