

$L_4(4).2_2 \pmod{2}$

	blocks	defect	matrix
$G :$	1	13	79×39
	2	1	2×1

Block 1:	$\varphi_{1,0}$	φ_{2+}	φ_{4+}	$\varphi_{6,0}$	$\varphi_{7,0}$	$\varphi_{8,0}$	$\varphi_{9,0}$	φ_{10+}	φ_{12+}	φ_{14+}	φ_{15+}	φ_{18+}
$1_1 = \chi_{1,0}$	1	.	.	.	.	.	.	.	.	.	.	.
$1_2 = \chi_{1,1}$	1	.	.	.	.	.	.	.	.	.	.	.
$170_1 = \chi_{51+}$	2	1	1	2	2	.	.	.	1	.	.	1
$2142_1 = \chi_{57+}$	6	2	3	4	6	4	2	1	3	3	2	2
$2142_2 = \chi_{56+}$	6	3	2	6	4	2	4	1	3	2	3	1
$2856_1 = \chi_{66+}$	8	4	4	4	4	2	2	.	1	2	2	2
$3400_1 = \chi_{65+}$	8	4	4	6	6	4	4	2	3	3	3	2
$5670_1 = \chi_{49+}$	10	6	7	8	10	6	6	3	2	4	3	3
$5670_2 = \chi_{42+}$	10	2	3	8	6	2	6	.	6	8	.	5
$5670_3 = \chi_{38+}$	6	5	6	4	6	4	2	2	3	4	3	2
$5670_4 = \chi_{35+}$	10	5	3	4	2	.	4	.	1	3	2	1
$5670_5 = \chi_{46+}$	10	3	2	6	8	6	2	.	6	.	8	3
$5670_6 = \chi_{43+}$	10	7	6	10	8	6	6	3	2	3	4	1
$5670_7 = \chi_{40+}$	10	3	5	2	4	4	.	.	1	2	3	4
$5670_8 = \chi_{36+}$	6	6	5	6	4	2	4	2	3	3	4	2
$6426_1 = \chi_{53+}$	10	6	6	8	8	4	4	2	4	4	4	3
$7650_1 = \chi_{19+}$	18	5	8	8	16	8	12	4	.	1	2	6
$7650_2 = \chi_{20+}$	10	5	5	8	8	6	2	1	7	3	8	3
$7650_3 = \chi_{21+}$	14	8	4	8	4	2	8	1	3	5	5	1
$7650_4 = \chi_{24+}$	18	8	5	16	8	12	8	4	.	2	1	1
$7650_5 = \chi_{23+}$	10	5	5	8	8	2	6	1	7	8	3	5
$7650_6 = \chi_{22+}$	14	4	8	4	8	8	2	1	3	5	5	5
$7650_7 = \chi_{18+}$	18	8	8	12	12	8	8	2	5	6	6	4
$7650_8 = \chi_{14+}$	14	7	4	12	12	10	4	1	6	1	8	3
$7650_9 = \chi_{13+}$	14	4	7	12	12	4	10	1	6	8	1	7
$7650_{10} = \chi_{12+}$	10	8	8	8	8	6	6	5	2	4	4	2
$8568_1 = \chi_{74+}$	16	9	5	8	6	2	8	1	4	6	5	3
$8568_2 = \chi_{81+}$	16	5	9	6	8	8	2	1	4	5	6	5
$10710_1 = \chi_{59+}$	18	8	9	14	14	8	10	3	7	9	4	7
$10710_2 = \chi_{58+}$	18	9	8	14	14	10	8	3	7	4	9	4
$10880_1 = \chi_{69+}$	16	6	6	4	4	4	4	.	4	6	6	4
$1344_1 = \chi_{5,0}$	4	1	1	4	4	2	2	.	1	.	.	2
$1344_2 = \chi_{5,1}$	4	1	1	4	4	2	2	.	1	.	.	2
$84_1 = \chi_{2,0}$	.	1	1	.	.	.	.	1	.	.	.	.
$3213_1 = \chi_{78,0}$	7	3	2	6	5	4	4	1	3	1	4	1
$189_1 = \chi_{63,0}$	1	.	1	.	1	.	1	.	.	1	.	.
$189_2 = \chi_{52,0}$	1	1	.	1	.	1	.	.	.	.	1	.
$2835_1 = \chi_{9,0}$	7	3	1	6	4	4	2	.	3	1	4	1
$3213_2 = \chi_{54,0}$	7	2	3	5	6	4	4	1	3	4	1	3
$272_1 = \chi_{3,0}$	.	1	1	2	2	.	.	.	.	.	.	.

(Block 1:)	$\varphi_{38,0}$	φ_{39+}	φ_{40+}	$\varphi_{43,0}$	φ_{44+}	φ_{45+}	φ_{48+}	φ_{50+}	$\varphi_{52,0}$	$\varphi_{53,0}$	φ_{54+}
$1_1 = \chi_{1,0}$	.	.	.	.	.	.	.	.	.	.	.
$1_2 = \chi_{1,1}$	.	.	.	.	.	.	.	.	.	.	.
$170_1 = \chi_{51+}$	.	.	.	.	.	.	.	.	.	.	.
$2142_1 = \chi_{57+}$	2	1	.	.	.	.	1	.	.	.	.
$2142_2 = \chi_{56+}$	2	.	1	.	.	.	.	1	.	.	.
$2856_1 = \chi_{66+}$	2	.	.	.	.	.	.	.	.	.	.
$3400_1 = \chi_{65+}$	2	1	1	.	.	.	1	1	.	.	.
$5670_1 = \chi_{49+}$	2	2	2	2	.	.	1	.	.	.	.
$5670_2 = \chi_{42+}$	4	.	1	.	1	.	2	.	.	2	1
$5670_3 = \chi_{38+}$	2	1	.	.	1	1	1	1	.	.	1
$5670_4 = \chi_{35+}$	2	.	.	.	.	.	.	.	.	.	.
$5670_5 = \chi_{46+}$	.	1	.	.	.	1	.	2	2	.	1
$5670_6 = \chi_{43+}$	2	2	2	2	.	.	.	1	.	.	.
$5670_7 = \chi_{40+}$	.	.	.	.	.	.	.	.	.	.	.
$5670_8 = \chi_{36+}$	2	.	1	.	1	1	1	1	.	.	1
$6426_1 = \chi_{53+}$	2	1	1	.	1	1	1	1	.	.	1
$7650_1 = \chi_{19+}$	.	2	4	2	.	.	.	.	.	.	.
$7650_2 = \chi_{20+}$	2	1	.	.	1	1	1	2	2	.	1
$7650_3 = \chi_{21+}$	4	.	1	.	.	.	.	1	.	.	.
$7650_4 = \chi_{24+}$	2	4	2	2	.	.	.	.	.	.	.
$7650_5 = \chi_{23+}$	4	.	1	.	1	1	2	1	.	2	1
$7650_6 = \chi_{22+}$	2	1	.	.	.	.	1	.	.	.	.
$7650_7 = \chi_{18+}$	4	2	2	2	.	.	1	1	.	.	.
$7650_8 = \chi_{14+}$	.	3	.	2	.	1	.	2	2	.	1
$7650_9 = \chi_{13+}$	4	.	3	2	1	.	2	.	.	2	1
$7650_{10} = \chi_{12+}$	2	2	2	2	1	1	1	1	.	.	1
$8568_1 = \chi_{74+}$	4	.	1	.	.	.	1	1	.	.	.
$8568_2 = \chi_{81+}$	2	1	.	.	.	.	1	1	.	.	.
$10710_1 = \chi_{59+}$	4	2	3	2	1	1	2	1	.	2	1
$10710_2 = \chi_{58+}$	2	3	2	2	1	1	1	2	2	.	1
$10880_1 = \chi_{69+}$	2	.	.	.	.	.	1	1	.	.	.
$1344_1 = \chi_{5,0}$	.	.	.	1	.	.	.	.	.	.	1
$1344_2 = \chi_{5,1}$	.	.	.	1	.	.	.	.	.	.	1
$84_1 = \chi_{2,0}$	.	.	.	.	.	.	.	.	.	.	.
$3213_1 = \chi_{78,0}$	1	1	1	1	.	.	.	1	1	.	.
$189_1 = \chi_{63,0}$	1	.	.	.	.	.	.	.	.	.	.
$189_2 = \chi_{52,0}$	.	.	.	.	.	.	.	.	.	.	.
$2835_1 = \chi_{9,0}$	1	1	.	1	.	.	.	1	1	.	.
$3213_2 = \chi_{54,0}$	2	1	1	1	.	.	1	.	.	1	.
$272_1 = \chi_{3,0}$	.	.	.	1	.	.	.	.	.	.	.

(Block 1:)	φ_{55+}	$\varphi_{58,0}$	$\varphi_{59,0}$	φ_{60+}	φ_{61+}
$1_1 = \chi_{1,0}$	.	.	.	.	.
$1_2 = \chi_{1,1}$	.	.	.	.	.
$170_1 = \chi_{51+}$	.	.	.	.	.
$2142_1 = \chi_{57+}$	.	.	.	.	.
$2142_2 = \chi_{56+}$	.	.	.	.	.
$2856_1 = \chi_{66+}$	1	.	.	.	.
$3400_1 = \chi_{65+}$	.	.	.	.	.
$5670_1 = \chi_{49+}$	1	.	.	.	.
$5670_2 = \chi_{42+}$	.	.	.	.	.
$5670_3 = \chi_{38+}$	.	.	.	.	.
$5670_4 = \chi_{35+}$	1	.	.	.	1
$5670_5 = \chi_{46+}$	.	.	.	.	.
$5670_6 = \chi_{43+}$	1	.	.	.	.
$5670_7 = \chi_{40+}$	1	.	.	1	.
$5670_8 = \chi_{36+}$	.	.	.	.	.
$6426_1 = \chi_{53+}$	.	.	.	.	.
$7650_1 = \chi_{19+}$	1	.	2	.	.
$7650_2 = \chi_{20+}$	.	.	.	.	.
$7650_3 = \chi_{21+}$	1	.	.	.	1
$7650_4 = \chi_{24+}$	1	2	.	.	.
$7650_5 = \chi_{23+}$	.	.	.	.	.
$7650_6 = \chi_{22+}$	1	.	.	1	.
$7650_7 = \chi_{18+}$	1	.	.	.	.
$7650_8 = \chi_{14+}$	.	.	.	.	.
$7650_9 = \chi_{13+}$	.	.	.	.	.
$7650_{10} = \chi_{12+}$	.	.	.	.	.
$8568_1 = \chi_{74+}$	1	.	.	.	1
$8568_2 = \chi_{81+}$	1	.	.	1	.
$10710_1 = \chi_{59+}$	.	.	.	.	.
$10710_2 = \chi_{58+}$	.	.	.	.	.
$10880_1 = \chi_{69+}$	1	.	.	1	1
$1344_1 = \chi_{5,0}$	.	.	.	.	.
$1344_2 = \chi_{5,1}$	.	.	.	.	.
$84_1 = \chi_{2,0}$	.	.	.	.	.
$3213_1 = \chi_{78,0}$	.	.	.	.	.
$189_1 = \chi_{63,0}$	.	.	.	.	.
$189_2 = \chi_{52,0}$	.	.	.	.	.
$2835_1 = \chi_{9,0}$	.	.	.	.	.
$3213_2 = \chi_{54,0}$	.	.	.	.	.
$272_1 = \chi_{3,0}$	.	.	.	.	.

(Block 1:)	$\varphi_{1,0}$	φ_{2+}	φ_{4+}	$\varphi_{6,0}$	$\varphi_{7,0}$	$\varphi_{8,0}$	$\varphi_{9,0}$	φ_{10+}	φ_{12+}	φ_{14+}	φ_{15+}	φ_{18+}
1071 ₁ = $\chi_{62,0}$	3	2	2	3	2	2	1	1	.	1	.	.
1785 ₁ = $\chi_{6,0}$	5	2	2	3	3	3	3	1	.	1	1	1
3024 ₁ = $\chi_{70,0}$	10	4	1	8	2	6	3	1	.	1	.	.
3024 ₂ = $\chi_{61,0}$	10	1	4	2	8	3	6	1	.	.	1	4
1071 ₂ = $\chi_{55,0}$	3	2	2	2	3	1	2	1	.	.	1	1
1071 ₃ = $\chi_{62,1}$	3	2	2	3	2	2	1	1	.	1	.	.
357 ₁ = $\chi_{4,0}$	1	.	.	1	1	1	1	.	1	1	1	.
189 ₃ = $\chi_{63,1}$	1	.	1	.	1	.	1	.	.	1	.	.
1071 ₄ = $\chi_{55,1}$	3	2	2	2	3	1	2	1	.	.	1	1
84 ₂ = $\chi_{2,1}$	.	1	1	.	.	.	.	1	.	.	.	.
4284 ₁ = $\chi_{73,0}$	6	2	4	6	5	2	4	1	3	4	.	3
2835 ₂ = $\chi_{10,0}$	7	1	3	4	6	2	4	.	3	4	1	3
189 ₄ = $\chi_{52,1}$	1	1	.	1	.	1	.	.	.	.	1	.
272 ₂ = $\chi_{3,1}$	.	1	1	2	2	.	.	.	.	.	.	.
5355 ₁ = $\chi_{71,0}$	13	4	6	6	10	6	7	2	1	2	3	4
5355 ₂ = $\chi_{72,0}$	13	6	4	10	6	7	6	2	1	3	2	1
4284 ₂ = $\chi_{64,0}$	6	4	2	5	6	4	2	1	3	.	4	2
3213 ₃ = $\chi_{11,0}$	5	4	4	5	5	3	3	2	1	2	2	1
357 ₂ = $\chi_{4,1}$	1	.	.	1	1	1	1	.	1	1	1	.
3213 ₄ = $\chi_{11,1}$	5	4	4	5	5	3	3	2	1	2	2	1
1785 ₂ = $\chi_{6,1}$	5	2	2	3	3	3	3	1	.	1	1	1
3024 ₃ = $\chi_{70,1}$	10	4	1	8	2	6	3	1	.	1	.	.
3024 ₄ = $\chi_{61,1}$	10	1	4	2	8	3	6	1	.	.	1	4
5712 ₁ = $\chi_{33,0}$	12	4	4	8	8	7	7	3	.	1	1	2
5355 ₃ = $\chi_{72,1}$	13	6	4	10	6	7	6	2	1	3	2	1
2835 ₃ = $\chi_{7,0}$	7	2	2	4	6	4	6	2	.	.	1	2
2835 ₄ = $\chi_{7,1}$	7	2	2	4	6	4	6	2	.	.	1	2
2835 ₅ = $\chi_{8,0}$	7	2	2	6	4	6	4	2	.	1	.	.
2835 ₆ = $\chi_{10,1}$	7	1	3	4	6	2	4	.	3	4	1	3
2835 ₇ = $\chi_{8,1}$	7	2	2	6	4	6	4	2	.	1	.	.
4284 ₃ = $\chi_{64,1}$	6	4	2	5	6	4	2	1	3	.	4	2
2835 ₈ = $\chi_{9,1}$	7	3	1	6	4	4	2	.	3	1	4	1
3213 ₅ = $\chi_{78,1}$	7	3	2	6	5	4	4	1	3	1	4	1
5712 ₂ = $\chi_{33,1}$	12	4	4	8	8	7	7	3	.	1	1	2
3213 ₆ = $\chi_{54,1}$	7	2	3	5	6	4	4	1	3	4	1	3
5355 ₄ = $\chi_{71,1}$	13	4	6	6	10	6	7	2	1	2	3	4
4284 ₄ = $\chi_{73,1}$	6	2	4	6	5	2	4	1	3	4	.	3
7140 ₁ = $\chi_{34,0}$	8	4	4	7	7	4	4	1	5	4	4	3
7140 ₂ = $\chi_{34,1}$	8	4	4	7	7	4	4	1	5	4	4	3

(Block 1:)	φ_{19+}	$\varphi_{22,0}$	φ_{23+}	φ_{24+}	$\varphi_{27,0}$	$\varphi_{28,0}$	φ_{29+}	φ_{30+}	φ_{31+}	φ_{32+}	$\varphi_{37,0}$
1071 ₁ = $\chi_{62,0}$	1	2	.	1	.	1	.	.	.	1	.
1785 ₁ = $\chi_{6,0}$	1	2	1	1	1	1	.	.	1	1	.
3024 ₁ = $\chi_{70,0}$	4	1	.	2	.	2	.	1	.	2	.
3024 ₂ = $\chi_{61,0}$	.	1	2	.	2	.	1	.	2	.	1
1071 ₂ = $\chi_{55,0}$	.	2	1	.	1	.	.	.	1	.	.
1071 ₃ = $\chi_{62,1}$	1	2	.	1	.	1	.	.	.	1	.
357 ₁ = $\chi_{4,0}$	.	1	.	.	.	.	.	.	.	.	1
189 ₃ = $\chi_{63,1}$	.	1	.	.	.	.	.	.	.	.	.
1071 ₄ = $\chi_{55,1}$	.	2	1	.	1	.	.	.	1	.	.
84 ₂ = $\chi_{2,1}$	.	1	.	.	.	.	.	.	.	.	.
4284 ₁ = $\chi_{73,0}$	2	1	1	.	1	.	2	.	1	.	.
2835 ₂ = $\chi_{10,0}$	1	1	1	.	1	.	1	.	1	.	1
189 ₄ = $\chi_{52,1}$	.	1	.	.	.	.	.	.	.	.	1
272 ₂ = $\chi_{3,1}$	.	1	.	.	.	.	.	.	.	.	.
5355 ₁ = $\chi_{71,0}$	1	3	3	2	2	1	1	.	2	1	3
5355 ₂ = $\chi_{72,0}$	4	3	2	3	1	2	.	1	1	2	1
4284 ₂ = $\chi_{64,0}$	3	1	.	1	.	1	.	2	.	1	2
3213 ₃ = $\chi_{11,0}$	1	3	2	2	1	1	.	.	1	1	1
357 ₂ = $\chi_{4,1}$	.	1	.	.	.	.	.	.	.	.	1
3213 ₄ = $\chi_{11,1}$	1	3	2	2	1	1	.	.	1	1	1
1785 ₂ = $\chi_{6,1}$	1	2	1	1	1	1	.	.	1	1	.
3024 ₃ = $\chi_{70,1}$	4	1	.	2	.	2	.	1	.	2	.
3024 ₄ = $\chi_{61,1}$	.	1	2	.	2	.	1	.	2	.	1
5712 ₁ = $\chi_{33,0}$	2	1	2	2	2	2	.	.	1	1	1
5355 ₃ = $\chi_{72,1}$	4	3	2	3	1	2	.	1	1	2	1
2835 ₃ = $\chi_{7,0}$	.	1	1	.	2	1	.	.	1	.	1
2835 ₄ = $\chi_{7,1}$	.	1	1	.	2	1	.	.	1	.	1
2835 ₅ = $\chi_{8,0}$	2	1	.	1	1	2	.	.	.	1	.
2835 ₆ = $\chi_{10,1}$	1	1	1	.	1	.	1	.	1	.	1
2835 ₇ = $\chi_{8,1}$	2	1	.	1	1	2	.	.	.	1	.
4284 ₃ = $\chi_{64,1}$	3	1	.	1	.	1	.	2	.	1	2
2835 ₈ = $\chi_{9,1}$	3	1	.	1	.	1	.	1	.	1	2
3213 ₅ = $\chi_{78,1}$	3	1	.	1	1	1	.	1	.	1	2
5712 ₂ = $\chi_{33,1}$	2	1	2	2	2	2	.	.	1	1	1
3213 ₆ = $\chi_{54,1}$	1	1	1	.	1	1	1	.	1	.	1
5355 ₄ = $\chi_{71,1}$	1	3	3	2	2	1	1	.	2	1	3
4284 ₄ = $\chi_{73,1}$	2	1	1	.	1	.	2	.	1	.	.
7140 ₁ = $\chi_{34,0}$	3	1	1	1	1	1	2	2	1	1	2
7140 ₂ = $\chi_{34,1}$	3	1	1	1	1	1	2	2	1	1	2

(Block 1:)	φ_{55+}	$\varphi_{58,0}$	$\varphi_{59,0}$	φ_{60+}	φ_{61+}		
1071 ₁ = $\chi_{62,0}$	.	.	.	.	.	$\varphi_{1,0}$	= 1 ₁
1785 ₁ = $\chi_{6,0}$	.	.	.	.	.	φ_{2+}	= 8 ₁
3024 ₁ = $\chi_{70,0}$	.	1	.	.	.	φ_{4+}	= 8 ₂
3024 ₂ = $\chi_{61,0}$	.	.	1	.	.	$\varphi_{6,0}$	= 6 ₁
1071 ₂ = $\chi_{55,0}$	.	.	.	.	.	$\varphi_{7,0}$	= 6 ₂
1071 ₃ = $\chi_{62,1}$	.	.	.	.	.	$\varphi_{8,0}$	= 14 ₁
357 ₁ = $\chi_{4,0}$	.	.	.	.	.	$\varphi_{9,0}$	= 14 ₂
189 ₃ = $\chi_{63,1}$	.	.	.	.	.	φ_{10+}	= 32 ₁
1071 ₄ = $\chi_{55,1}$	.	.	.	.	.	φ_{12+}	= 32 ₂
84 ₂ = $\chi_{2,1}$	.	.	.	.	.	φ_{14+}	= 40 ₁
4284 ₁ = $\chi_{73,0}$	.	.	.	.	.	φ_{15+}	= 40 ₂
2835 ₂ = $\chi_{10,0}$	.	.	.	.	.	φ_{18+}	= 48 ₁
189 ₄ = $\chi_{52,1}$	.	.	.	.	.	φ_{19+}	= 48 ₂
272 ₂ = $\chi_{3,1}$	.	.	.	.	.	$\varphi_{22,0}$	= 36 ₁
5355 ₁ = $\chi_{71,0}$	1	.	1	.	.	φ_{23+}	= 112 ₁
5355 ₂ = $\chi_{72,0}$	1	1	.	.	.	φ_{24+}	= 112 ₂
4284 ₂ = $\chi_{64,0}$	.	.	.	.	.	$\varphi_{27,0}$	= 64 ₁
3213 ₃ = $\chi_{11,0}$	1	.	.	.	.	$\varphi_{28,0}$	= 64 ₂
357 ₂ = $\chi_{4,1}$	.	.	.	.	.	φ_{29+}	= 160 ₁
3213 ₄ = $\chi_{11,1}$	1	.	.	.	.	φ_{30+}	= 160 ₂
1785 ₂ = $\chi_{6,1}$	.	.	.	.	.	φ_{31+}	= 160 ₃
3024 ₃ = $\chi_{70,1}$	.	1	.	.	.	φ_{32+}	= 160 ₄
3024 ₄ = $\chi_{61,1}$	.	.	1	.	.	$\varphi_{37,0}$	= 84 ₁
5712 ₁ = $\chi_{33,0}$	1	1	1	.	.	$\varphi_{38,0}$	= 84 ₂
5355 ₃ = $\chi_{72,1}$	1	1	.	.	.	φ_{39+}	= 240 ₁
2835 ₃ = $\chi_{7,0}$	.	.	1	.	.	φ_{40+}	= 240 ₂
2835 ₄ = $\chi_{7,1}$	.	.	1	.	.	$\varphi_{43,0}$	= 196 ₁
2835 ₅ = $\chi_{8,0}$	.	1	.	.	.	φ_{44+}	= 512 ₁
2835 ₆ = $\chi_{10,1}$	.	.	.	.	.	φ_{45+}	= 512 ₂
2835 ₇ = $\chi_{8,1}$	.	1	.	.	.	φ_{48+}	= 560 ₁
4284 ₃ = $\chi_{64,1}$	.	.	.	.	.	φ_{50+}	= 560 ₂
2835 ₈ = $\chi_{9,1}$	.	.	.	.	.	$\varphi_{52,0}$	= 384 ₁
3213 ₅ = $\chi_{78,1}$	.	.	.	.	.	$\varphi_{53,0}$	= 384 ₂
5712 ₂ = $\chi_{33,1}$	1	1	1	.	.	φ_{54+}	= 800 ₁
3213 ₆ = $\chi_{54,1}$	.	.	.	.	.	φ_{55+}	= 800 ₂
5355 ₄ = $\chi_{71,1}$	1	.	1	.	.	$\varphi_{58,0}$	= 896 ₁
4284 ₄ = $\chi_{73,1}$	.	.	.	.	.	$\varphi_{59,0}$	= 896 ₂
7140 ₁ = $\chi_{34,0}$	.	.	.	.	.	φ_{60+}	= 2560 ₁
7140 ₂ = $\chi_{34,1}$	.	.	.	.	.	φ_{61+}	= 2560 ₂

Block 2:	$\varphi_{64,0}$
$4096_1 = \chi_{32,0}$	1
$4096_2 = \chi_{32,1}$	1

$$\varphi_{64,0} = 4096_1$$