

List of cyclic self-dual codes over $GR(2^2, 1)$, $GR(3^2, 1)$ and $GR(3^2, 2)$

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Table 1: Cyclic self-dual codes over \mathbb{Z}_4 of length 16

No.	Ideals	Lee weight enumerators
1	$\langle 2 \rangle$	$x^{32} + 16x^{30}y^2 + 120x^{28}y^4 + 560x^{26}y^6 + 1820x^{24}y^8 + 4368x^{22}y^{10} + 8008x^{20}y^{12} + 11440x^{18}y^{14} + 12870x^{16}y^{16} + 11440x^{14}y^{18} + 8008x^{12}y^{20} + 4368x^{10}y^{22} + 1820x^8y^{24} + 560x^6y^{26} + 120x^4y^{28} + 16x^2y^{30} + y^{32}$
2	$\langle (x-1)^{15} + 2 \rangle$	$x^{32} + 120x^{28}y^4 + 1820x^{24}y^8 + 8008x^{20}y^{12} + 45638x^{16}y^{16} + 8008x^{12}y^{20} + 1820x^8y^{24} + 120x^4y^{28} + y^{32}$
3	$\langle (x-1)^{13}, 2(x-1)^3 \rangle$	$x^{32} + 24x^{28}y^4 + 860x^{24}y^8 + 12712x^{20}y^{12} + 38342x^{16}y^{16} + 12712x^{12}y^{20} + 860x^8y^{24} + 24x^4y^{28} + y^{32}$
4	$\langle (x-1)^{14} + 2 \rangle$	$x^{32} + 56x^{28}y^4 + 1180x^{24}y^8 + 11144x^{20}y^{12} + 40774x^{16}y^{16} + 11144x^{12}y^{20} + 1180x^8y^{24} + 56x^4y^{28} + y^{32}$
5	$\langle (x-1)^{14}, 2(x-1)^2 \rangle$	
6	$\langle (x-1)^{12} + 2 \rangle$	
7	$\langle (x-1)^{12}, 2(x-1)^4 \rangle$	
8	$\langle (x-1)^{14} + 2 + 2(x-1) \rangle$	$x^{32} + 56x^{28}y^4 + 924x^{24}y^8 + 2048x^{22}y^{10} + 3976x^{20}y^{12} + 14336x^{18}y^{14} + 22854x^{16}y^{16} + 14336x^{14}y^{18} + 3976x^{12}y^{20} + 2048x^{10}y^{22} + 924x^8y^{24} + 56x^4y^{28} + y^{32}$
9	$\langle (x-1)^{14} + 2(x-1), 2(x-1)^2 \rangle$	
10	$\langle (x-1)^{12} + 2 + 2(x-1)^2 \rangle$	$x^{32} + 24x^{28}y^4 + 128x^{26}y^6 + 348x^{24}y^8 + 1664x^{22}y^{10} + 6568x^{20}y^{12} + 14592x^{18}y^{14} + 18886x^{16}y^{16} + 14592x^{14}y^{18} + 6568x^{12}y^{20} + 1664x^{10}y^{22} + 348x^8y^{24} + 128x^6y^{26} + 24x^4y^{28} + y^{32}$
11	$\langle (x-1)^{12} + 2(x-1)^2, 2(x-1)^4 \rangle$	
12	$\langle (x-1)^{12} + 2 + 2(x-1)^3 \rangle$	$x^{32} + 24x^{28}y^4 + 604x^{24}y^8 + 2048x^{22}y^{10} + 5544x^{20}y^{12} + 14336x^{18}y^{14} + 20422x^{16}y^{16} + 14336x^{14}y^{18} + 5544x^{12}y^{20} + 2048x^{10}y^{22} + 604x^8y^{24} + 24x^4y^{28} + y^{32}$
13	$\langle (x-1)^{12} + 2(x-1)^3, 2(x-1)^4 \rangle$	
14	$\langle (x-1)^{13} + 2(x-1)^2, 2(x-1)^3 \rangle$	
15	$\langle (x-1)^{13} + 2(x-1) + 2(x-1)^2, 2(x-1)^3 \rangle$	
16	$\langle (x-1)^{12} + 2 + 2(x-1)^2 + 2(x-1)^3 \rangle$	$x^{32} + 24x^{28}y^4 + 860x^{24}y^8 + 12712x^{20}y^{12} + 38342x^{16}y^{16} + 12712x^{12}y^{20} + 860x^8y^{24} + 24x^4y^{28} + y^{32}$
17	$\langle (x-1)^{12} + 2(x-1)^2 + 2(x-1)^3, 2(x-1)^4 \rangle$	
18	$\langle (x-1)^{13}, 2(x-1)^3 \rangle$	

Table 1: Cyclic self-dual codes over \mathbb{Z}_4 of length 16 (continued)

No.	Ideals	Lee weight enumerators
19	$\langle (x-1)^{13} + 2(x-1), 2(x-1)^3 \rangle$	
20	$\langle (x-1)^{10} + 2 \rangle$	$x^{32} + 40x^{28}y^4 + 64x^{26}y^6 + 700x^{24}y^8 + 1344x^{22}y^{10} + 7064x^{20}y^{12} + 10880x^{18}y^{14} + 25350x^{16}y^{16} + 10880x^{14}y^{18} + 7064x^{12}y^{20} + 1344x^{10}y^{22} + 700x^8y^{24} + 64x^6y^{26} + 40x^4y^{28} + y^{32}$
21	$\langle (x-1)^{10} + 2 + 2(x-1)^2 \rangle$	
22	$\langle (x-1)^{10} + 2 + 2(x-1)^4 \rangle$	$x^{32} + 8x^{28}y^4 + 192x^{26}y^6 + 124x^{24}y^8 + 960x^{22}y^{10} + 9656x^{20}y^{12} + 11136x^{18}y^{14} + 21382x^{16}y^{16} + 11136x^{14}y^{18} + 9656x^{12}y^{20} + 960x^{10}y^{22} + 124x^8y^{24} + 192x^6y^{26} + 8x^4y^{28} + y^{32}$
23	$\langle (x-1)^{10} + 2 + 2(x-1)^2 + 2(x-1)^4 \rangle$	
24	$\langle (x-1)^{10} + 2 + 2(x-1)^5 \rangle$	$x^{32} + 8x^{28}y^4 + 64x^{26}y^6 + 380x^{24}y^8 + 1344x^{22}y^{10} + 8632x^{20}y^{12} + 10880x^{18}y^{14} + 22918x^{16}y^{16} + 10880x^{14}y^{18} + 8632x^{12}y^{20} + 1344x^{10}y^{22} + 380x^8y^{24} + 64x^6y^{26} + 8x^4y^{28} + y^{32}$
25	$\langle (x-1)^{10} + 2 + 2(x-1)^4 + 2(x-1)^5 \rangle$	
26	$\langle (x-1)^{10} + 2 + 2(x-1)^2 + 2(x-1)^5 \rangle$	
27	$\langle (x-1)^{10} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 \rangle$	
28	$\langle (x-1)^{10} + 2(x-1), 2(x+1)^6 \rangle$	
29	$\langle (x-1)^{10} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5, 2(x+1)^6 \rangle$	
30	$\langle (x-1)^{10} + 2(x-1) + 2(x-1)^2, 2(x+1)^6 \rangle$	
31	$\langle (x-1)^{10} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5, 2(x+1)^6 \rangle$	
32	$\langle (x-1)^9 + 2 \rangle$	$x^{32} + 8x^{28}y^4 + 476x^{24}y^8 + 1792x^{22}y^{10} + 7224x^{20}y^{12} + 12544x^{18}y^{14} + 21446x^{16}y^{16} + 12544x^{14}y^{18} + 7224x^{12}y^{20} + 1792x^{10}y^{22} + 476x^8y^{24} + 8x^4y^{28} + y^{32}$
33	$\langle (x-1)^9 + 2 + 2(x-1) \rangle$	
34	$\langle (x-1)^9 + 2 + 2(x-1)^6 \rangle$	
35	$\langle (x-1)^9 + 2 + 2(x-1) + 2(x-1)^6 \rangle$	
36	$\langle (x-1)^9 + 2 + 2(x-1)^3 + 2(x-1)^4 \rangle$	
37	$\langle (x-1)^9 + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 \rangle$	
38	$\langle (x-1)^9 + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 \rangle$	
39	$\langle (x-1)^9 + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 \rangle$	

Table 1: Cyclic self-dual codes over \mathbb{Z}_4 of length 16 (continued)

No.	Ideals	Lee weight enumerators
40	$\langle (x-1)^9 + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 \rangle$	$x^{32} + 40x^{28}y^4 + 64x^{26}y^6 + 668x^{24}y^8 + 1600x^{22}y^{10} + 6168x^{20}y^{12} + 12672x^{18}y^{14} + 23110x^{16}y^{16} + 12672x^{14}y^{18} + 6168x^{12}y^{20} + 1600x^{10}y^{22} + 668x^8y^{24} + 64x^6y^{26} + 40x^4y^{28} + y^{32}$
41	$\langle (x-1)^9 + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 \rangle$	
42	$\langle (x-1)^9 + 2 + 2(x-1)^5 \rangle$	
43	$\langle (x-1)^9 + 2 + 2(x-1) + 2(x-1)^5 \rangle$	
44	$\langle (x-1)^9 + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 \rangle$	$x^{32} + 8x^{28}y^4 + 64x^{26}y^6 + 348x^{24}y^8 + 1600x^{22}y^{10} + 7736x^{20}y^{12} + 12672x^{18}y^{14} + 20678x^{16}y^{16} + 12672x^{14}y^{18} + 7736x^{12}y^{20} + 1600x^{10}y^{22} + 348x^8y^{24} + 64x^6y^{26} + 8x^4y^{28} + y^{32}$
45	$\langle (x-1)^9 + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 \rangle$	
46	$\langle (x-1)^9 + 2 + 2(x-1)^5 + 2(x-1)^6 \rangle$	
47	$\langle (x+1)^9 + 2 + 2(x+1) + 2(x+1)^5 + 2(x+1)^6 \rangle$	
48	$\langle (x-1)^{11} + 2(x-1), 2(x-1)^5 \rangle$	
49	$\langle (x-1)^{11} + 2(x-1) + 2(x-1)^3, 2(x-1)^5 \rangle$	
50	$\langle (x-1)^{11} + 2(x-1)^2, 2(x+1)^5 \rangle$	$x^{32} + 8x^{28}y^4 + 572x^{24}y^8 + 1024x^{22}y^{10} + 9912x^{20}y^{12} + 7168x^{18}y^{14} + 28166x^{16}y^{16} + 7168x^{14}y^{18} + 9912x^{12}y^{20} + 1024x^{10}y^{22} + 572x^8y^{24} + 8x^4y^{28} + y^{32}$
51	$\langle (x-1)^{11} + 2(x-1)^2 + 2(x-1)^3, 2(x+1)^5 \rangle$	
52	$\langle (x-1)^{11} + 2(x-1)^2 + 2(x-1)^4, 2(x+1)^5 \rangle$	
53	$\langle (x-1)^{11} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4, 2(x+1)^5 \rangle$	$x^{32} + 8x^{28}y^4 + 316x^{24}y^8 + 3072x^{22}y^{10} + 2744x^{20}y^{12} + 21504x^{18}y^{14} + 10246x^{16}y^{16} + 21504x^{14}y^{18} + 2744x^{12}y^{20} + 3072x^{10}y^{22} + 316x^8y^{24} + 8x^4y^{28} + y^{32}$
54	$\langle (x-1)^{11} + 2(x-1) + 2(x-1)^4, 2(x+1)^5 \rangle$	
55	$\langle (x-1)^{11} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4, 2(x+1)^5 \rangle$	
56	$\langle (x-1)^{10} + 2(x-1) + 2(x-1)^5, 2(x+1)^6 \rangle$	$x^{32} + 8x^{28}y^4 + 508x^{24}y^8 + 1536x^{22}y^{10} + 8120x^{20}y^{12} + 10752x^{18}y^{14} + 23686x^{16}y^{16} + 10752x^{14}y^{18} + 8120x^{12}y^{20} + 1536x^{10}y^{22} + 508x^8y^{24} + 8x^4y^{28} + y^{32}$

Table 1: Cyclic self-dual codes over \mathbb{Z}_4 of length 16 (continued)

No.	Ideals	Lee weight enumerators
57	$\langle (x-1)^{10} + 2(x-1) + 2(x-1)^4, 2(x+1)^6 \rangle$	
58	$\langle (x-1)^{10} + 2(x-1) + 2(x-1)^2 + 2(x-1)^5, 2(x+1)^6 \rangle$	
59	$\langle (x-1)^{10} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4, 2(x+1)^6 \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32

No.	Generator polynomials	Lee weight enumerators
1	$\langle 2 \rangle$	Eq. (1)
2	$\langle (x-1)^{31} + 2 \rangle$	Eq. (2)
3	$\langle (x-1)^{31}, 2(x-1) \rangle$	
4	$\langle (x-1)^{30}, 2(x-1)^2 \rangle$	Eq. (3)
5	$\langle (x-1)^{30} + 2 \rangle$	
6	$\langle (x-1)^{30} + 2 + 2(x-1) \rangle$	Eq. (4)
7	$\langle (x-1)^{30} + 2(x-1), 2(x-1)^2 \rangle$	
8	$\langle (x-1)^{28} + 2 \rangle$	Eq. (5)
9	$\langle (x-1)^{28}, 2(x-1)^4 \rangle$	
10	$\langle (x-1)^{24} + 2 \rangle$	
11	$\langle (x-1)^{24}, 2(x-1)^8 \rangle$	Eq. (6)
12	$\langle (x-1)^{28} + 2 + 2(x-1)^3 \rangle$	
13	$\langle (x-1)^{28} + 2(x-1)^3, 2(x-1)^4 \rangle$	Eq. (7)
14	$\langle (x-1)^{28} + 2 + 2(x-1)^2 \rangle$	
15	$\langle (x-1)^{28} + 2(x-1)^2, 2(x-1)^4 \rangle$	Eq. (8)
16	$\langle (x-1)^{28} + 2 + 2(x-1)^2 + 2(x-1)^3 \rangle$	
17	$\langle (x-1)^{28} + 2(x-1)^2 + 2(x-1)^3, 2(x-1)^4 \rangle$	Eq. (9)
18	$\langle (x-1)^{24} + 2 + 2(x-1)^7 \rangle$	
19	$\langle (x-1)^{24} + 2(x-1)^7, 2(x-1)^8 \rangle$	
20	$\langle (x-1)^{27} + 2(x-1)^4, 2(x-1)^5 \rangle$	Eq. (10)
21	$\langle (x-1)^{27} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4, 2(x-1)^5 \rangle$	
22	$\langle (x-1)^{24} + 2 + 2(x-1)^6 \rangle$	Eq. (10)
23	$\langle (x-1)^{24} + 2(x-1)^6, 2(x-1)^8 \rangle$	
24	$\langle (x-1)^{26} + 2(x-1)^4, 2(x-1)^6 \rangle$	
25	$\langle (x-1)^{26} + 2(x-1)^2 + 2(x-1)^4, 2(x-1)^6 \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
26	$\langle (x-1)^{24} + 2 + 2(x-1)^6 + 2(x-1)^7 \rangle$	Eq. (11)
27	$\langle (x-1)^{24} + 2(x-1)^6 + 2(x-1)^7, 2(x-1)^8 \rangle$	
28	$\langle (x-1)^{26} + 2(x-1)^4 + 2(x-1)^5, 2(x-1)^6 \rangle$	
29	$\langle (x-1)^{26} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5, 2(x-1)^6 \rangle$	
30	$\langle (x-1)^{24} + 2 + 2(x-1)^4 \rangle$	Eq. (12)
31	$\langle (x-1)^{24} + 2(x-1)^4, 2(x-1)^8 \rangle$	Eq. (13)
32	$\langle (x-1)^{24} + 2 + 2(x-1)^4 + 2(x-1)^7 \rangle$	
33	$\langle (x-1)^{24} + 2(x-1)^4 + 2(x-1)^7, 2(x-1)^8 \rangle$	
34	$\langle (x-1)^{25} + 2(x-1)^5, 2(x-1)^7 \rangle$	
35	$\langle (x-1)^{25} + 2(x-1) + 2(x-1)^5, 2(x-1)^7 \rangle$	
36	$\langle (x-1)^{24} + 2 + 2(x-1)^4 + 2(x-1)^6 \rangle$	Eq. (14)
37	$\langle (x-1)^{24} + 2(x-1)^4 + 2(x-1)^6, 2(x-1)^8 \rangle$	
38	$\langle (x-1)^{26}, 2(x-1)^6 \rangle$	
39	$\langle (x-1)^{26} + 2(x-1)^2, 2(x-1)^6 \rangle$	
40	$\langle (x-1)^{24} + 2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 \rangle$	Eq. (15)
41	$\langle (x-1)^{24} + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7, 2(x-1)^8 \rangle$	
42	$\langle (x-1)^{25} + 2(x-1)^5 + 2(x-1)^6, 2(x-1)^7 \rangle$	
43	$\langle (x-1)^{25} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6, 2(x-1)^7 \rangle$	
44	$\langle (x-1)^{24} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 \rangle$	Eq. (16)
45	$\langle (x-1)^{24} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 \rangle$	
46	$\langle (x-1)^{24} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6, 2(x-1)^8 \rangle$	
47	$\langle (x-1)^{24} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7, 2(x-1)^8 \rangle$	
48	$\langle (x-1)^{24} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 \rangle$	Eq. (17)
49	$\langle (x-1)^{24} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 \rangle$	
50	$\langle (x-1)^{24} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5, 2(x-1)^8 \rangle$	
51	$\langle (x-1)^{24} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7, 2(x-1)^8 \rangle$	
52	$\langle (x-1)^{24} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 \rangle$	Eq. (18)
53	$\langle (x-1)^{24} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 \rangle$	
54	$\langle (x-1)^{24} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5, 2(x-1)^8 \rangle$	
55	$\langle (x-1)^{24} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7, 2(x-1)^8 \rangle$	
56	$\langle (x-1)^{24} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^7 \rangle$	Eq. (19)
57	$\langle (x-1)^{24} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 \rangle$	
58	$\langle (x-1)^{24} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^7, 2(x-1)^8 \rangle$	
59	$\langle (x-1)^{24} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6, 2(x-1)^8 \rangle$	
60	$\langle (x-1)^{25} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6, 2(x-1)^7 \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
61	$\langle (x-1)^{25} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6, 2(x-1)^7 \rangle$	
62	$\langle (x-1)^{25} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6, 2(x-1)^7 \rangle$	
63	$\langle (x-1)^{25} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6, 2(x-1)^7 \rangle$	
64	$\langle (x-1)^{20} + 2 + 2(x-1)^{11} \rangle$	Eq. (20)
65	$\langle (x-1)^{20} + 2 + 2(x-1)^4 + 2(x-1)^{11} \rangle$	Eq. (21)
66	$\langle (x-1)^{20} + 2 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	
67	$\langle (x-1)^{20} + 2 + 2(x-1)^4 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	Eq. (22)
68	$\langle (x-1)^{20} + 2 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	
69	$\langle (x-1)^{20} + 2 + 2(x-1)^4 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	Eq. (23)
70	$\langle (x-1)^{20} + 2 + 2(x-1)^8 \rangle$	
71	$\langle (x-1)^{20} + 2 + 2(x-1)^4 + 2(x-1)^8 \rangle$	Eq. (24)
72	$\langle (x-1)^{20} + 2 + 2(x-1)^8 + 2(x-1)^{11} \rangle$	
73	$\langle (x-1)^{20} + 2 + 2(x-1)^4 + 2(x-1)^8 + 2(x-1)^{11} \rangle$	Eq. (25)
74	$\langle (x-1)^{20} + 2 \rangle$	
75	$\langle (x-1)^{20} + 2 + 2(x-1)^4 \rangle$	Eq. (26)
76	$\langle (x-1)^{26} + 2 + 2(x-1) \rangle$	
77	$\langle (x-1)^{26} + 2 + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 \rangle$	
78	$\langle (x-1)^{26} + 2 + 2(x-1) + 2(x-1)^2 \rangle$	
79	$\langle (x-1)^{26} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 \rangle$	Eq. (27)
80	$\langle (x-1)^{26} + 2 + 2(x-1) + 2(x-1)^5 \rangle$	
81	$\langle (x-1)^{26} + 2 + 2(x-1) + 2(x-1)^4 \rangle$	
82	$\langle (x-1)^{26} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^5 \rangle$	
83	$\langle (x-1)^{26} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 \rangle$	Eq. (28)
84	$\langle (x-1)^{20} + 2 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 \rangle$	
85	$\langle (x-1)^{20} + 2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 \rangle$	
86	$\langle (x-1)^{20} + 2 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	
87	$\langle (x-1)^{20} + 2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	Eq. (29)
88	$\langle (x-1)^{20} + 2 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} \rangle$	
89	$\langle (x-1)^{20} + 2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} \rangle$	
90	$\langle (x-1)^{20} + 2 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} \rangle$	
91	$\langle (x-1)^{20} + 2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} \rangle$	Eq. (30)
92	$\langle (x-1)^{20} + 2 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 \rangle$	
93	$\langle (x-1)^{20} + 2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 \rangle$	
94	$\langle (x-1)^{20} + 2 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
95	$\langle (x-1)^{20} + 2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	
96	$\langle (x-1)^{20} + 2 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} \rangle$	Eq. (31)
97	$\langle (x-1)^{20} + 2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} \rangle$	
98	$\langle (x-1)^{20} + 2 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} \rangle$	
99	$\langle (x-1)^{20} + 2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} \rangle$	
100	$\langle (x-1)^{20} + 2(x-1)^2, 2(x-1)^{12} \rangle$	Eq. (32)
101	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^4, 2(x-1)^{12} \rangle$	
102	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{12} \rangle$	
103	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{12} \rangle$	
104	$\langle (x-1)^{20} + 2 + 2(x-1)^{10} \rangle$	
105	$\langle (x-1)^{20} + 2 + 2(x-1)^8 + 2(x-1)^{10} \rangle$	
106	$\langle (x-1)^{20} + 2 + 2(x-1)^4 + 2(x-1)^{10} \rangle$	
107	$\langle (x-1)^{20} + 2 + 2(x-1)^4 + 2(x-1)^8 + 2(x-1)^{10} \rangle$	
108	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} \rangle$	Eq. (33)
109	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} \rangle$	
110	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} \rangle$	
111	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} \rangle$	
112	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{13} \rangle$	
113	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{13} \rangle$	
114	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{13} \rangle$	
115	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{13} \rangle$	
116	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
117	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
118	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
119	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
120	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
121	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators	
122	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		
123	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		
124	$\langle (x-1)^{18} + 2 + 2(x-1)^{10} \rangle$		Eq. (34)
125	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^{10} \rangle$		
126	$\langle (x-1)^{18} + 2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12} \rangle$		
127	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12} \rangle$		
128	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^{10}, 2(x-1)^{14} \rangle$	Eq. (35)	
129	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{14} \rangle$		
130	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^{10}, 2(x-1)^{14} \rangle$		
131	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{14} \rangle$		
132	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
133	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
134	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
135	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
136	$\langle (x-1)^{18} + 2 + 2(x-1)^{10} + 2(x-1)^{13} \rangle$		
137	$\langle (x-1)^{18} + 2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{13} \rangle$		
138	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^{10} + 2(x-1)^{13} \rangle$		
139	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{13} \rangle$		
140	$\langle (x-1)^{18} + 2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} \rangle$		Eq. (36)
141	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} \rangle$		
142	$\langle (x-1)^{18} + 2 + 2(x-1)^{10} + 2(x-1)^{12} \rangle$		
143	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^{10} + 2(x-1)^{12} \rangle$		
144	$\langle (x-1)^{18} + 2 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	Eq. (37)	
145	$\langle (x-1)^{18} + 2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		
146	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		
147	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		
148	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 \rangle$	Eq. (38)	
149	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 \rangle$		
150	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 \rangle$		

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators	
151	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 \rangle$		
152	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$		
153	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$		
154	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$		
155	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$		
156	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^{11} \rangle$		Eq. (39)
157	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} \rangle$		
158	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^{11} \rangle$		
159	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} \rangle$		
160	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^{10} \rangle$		
161	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} \rangle$		
162	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^{10} \rangle$		
163	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} \rangle$		
164	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^8 \rangle$	Eq. (40)	
165	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 \rangle$		
166	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^8 \rangle$		
167	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 \rangle$		
168	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$		
169	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$		
170	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$		
171	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$		
172	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^8 + 2(x-1)^{11} \rangle$		Eq. (41)
173	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} \rangle$		
174	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^8 + 2(x-1)^{11} \rangle$		
175	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} \rangle$		
176	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^8 + 2(x-1)^{10} \rangle$		
177	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} \rangle$		

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
178	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^8 + 2(x-1)^{10} \rangle$	Eq. (42)
179	$\langle (x-1)^{20} + 2 + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} \rangle$	
180	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{11} \rangle$	
181	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{13} \rangle$	
182	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{13} \rangle$	
183	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{11} \rangle$	
184	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
185	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
186	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
187	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
188	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	Eq. (43)
189	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	
190	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
191	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
192	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13} \rangle$	
193	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13} \rangle$	
194	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
195	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
196	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	Eq. (44)
197	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	
198	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
199	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators	
200	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13} \rangle$		
201	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13} \rangle$		
202	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		
203	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		
204	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$		Eq. (45)
205	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$		
206	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$		
207	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$		
208	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13} \rangle$		
209	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13} \rangle$		
210	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		
211	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		
212	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	Eq. (46)	
213	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$		
214	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$		
215	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$		
216	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13} \rangle$		
217	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13} \rangle$		
218	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
219	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
220	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} \rangle$	Eq. (47)
221	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} \rangle$	
222	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{13} \rangle$	
223	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{13} \rangle$	
224	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
225	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
226	$\langle (x-1)^{18} + 2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
227	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
228	$\langle (x-1)^{18} + 2 \rangle$	Eq. (48)
229	$\langle (x-1)^{18} + 2 + 2(x-1)^6 + 2(x-1)^8 \rangle$	
230	$\langle (x-1)^{18} + 2 + 2(x-1)^2 \rangle$	
231	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8 \rangle$	
232	$\langle (x-1)^{18} + 2 + 2(x-1)^{12} \rangle$	
233	$\langle (x-1)^{18} + 2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{12} \rangle$	
234	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^{12} \rangle$	
235	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{12} \rangle$	
236	$\langle (x-1)^{18} + 2 + 2(x-1)^8 + 2(x-1)^9 \rangle$	Eq. (49)
237	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9 \rangle$	
238	$\langle (x-1)^{18} + 2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{13} \rangle$	
239	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{13} \rangle$	
240	$\langle (x-1)^{18} + 2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{12} \rangle$	
241	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{12} \rangle$	
242	$\langle (x-1)^{18} + 2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
243	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
244	$\langle (x-1)^{18} + 2 + 2(x-1)^{13} \rangle$	Eq. (50)
245	$\langle (x-1)^{18} + 2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{13} \rangle$	
246	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^{13} \rangle$	
247	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{13} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
248	$\langle (x-1)^{18} + 2 + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
249	$\langle (x-1)^{18} + 2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
250	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
251	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
252	$\langle (x-1)^{18} + 2 + 2(x-1)^6 + 2(x-1)^9 \rangle$	Eq. (51)
253	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9 \rangle$	
254	$\langle (x-1)^{18} + 2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{13} \rangle$	
255	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{13} \rangle$	
256	$\langle (x-1)^{18} + 2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12} \rangle$	
257	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12} \rangle$	
258	$\langle (x-1)^{18} + 2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
259	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
260	$\langle (x-1)^{18} + 2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} \rangle$	
261	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} \rangle$	
262	$\langle (x-1)^{18} + 2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{13} \rangle$	
263	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{13} \rangle$	
264	$\langle (x-1)^{18} + 2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} \rangle$	
265	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} \rangle$	
266	$\langle (x-1)^{18} + 2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
267	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
268	$\langle (x-1)^{18} + 2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} \rangle$	Eq. (53)
269	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} \rangle$	
270	$\langle (x-1)^{18} + 2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{13} \rangle$	
271	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{13} \rangle$	
272	$\langle (x-1)^{18} + 2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} \rangle$	
273	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} \rangle$	
274	$\langle (x-1)^{18} + 2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
275	$\langle (x-1)^{18} + 2 + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
276	$\langle (x-1)^{17} + 2 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{14} \rangle$	
277	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{14} \rangle$	
278	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
279	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators	
280	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$		
281	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$		
282	$\langle (x-1)^{17} + 2 \rangle$		
283	$\langle (x-1)^{17} + 2 + 2(x-1) \rangle$		
284	$\langle (x-1)^{17} + 2 + 2(x-1)^{11} + 2(x-1)^{12} \rangle$		Eq. (55)
285	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^{11} + 2(x-1)^{12} \rangle$		
286	$\langle (x-1)^{17} + 2 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$		
287	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$		
288	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} \rangle$		
289	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} \rangle$		
290	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$		
291	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$		
292	$\langle (x-1)^{17} + 2 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{14} \rangle$	Eq. (56)	
293	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{14} \rangle$		
294	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		
295	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		
296	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$		
297	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$		
298	$\langle (x-1)^{17} + 2 + 2(x-1)^9 \rangle$		
299	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^9 \rangle$		
300	$\langle (x-1)^{17} + 2 + 2(x-1)^{14} \rangle$	Eq. (57)	
301	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^{14} \rangle$		
302	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
303	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
304	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{14} \rangle$		

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
305	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{14} \rangle$	
306	$\langle (x-1)^{17} + 2 + 2(x-1)^7 + 2(x-1)^8 \rangle$	
307	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 \rangle$	
308	$\langle (x-1)^{17} + 2 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	Eq. (58)
309	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
310	$\langle (x-1)^{17} + 2 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
311	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
312	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
313	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
314	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
315	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
316	$\langle (x-1)^{17} + 2 + 2(x-1)^9 + 2(x-1)^{14} \rangle$	Eq. (59)
317	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^9 + 2(x-1)^{14} \rangle$	
318	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
319	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
320	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{14} \rangle$	
321	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{14} \rangle$	
322	$\langle (x-1)^{17} + 2 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 \rangle$	
323	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 \rangle$	
324	$\langle (x-1)^{17} + 2 + 2(x-1)^{13} \rangle$	Eq. (60)
325	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^{13} \rangle$	
326	$\langle (x-1)^{17} + 2 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
327	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
328	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} \rangle$	
329	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
330	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	Eq. (61)
331	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
332	$\langle (x-1)^{17} + 2 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
333	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
334	$\langle (x-1)^{17} + 2 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
335	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
336	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
337	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
338	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	
339	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	
340	$\langle (x-1)^{17} + 2 + 2(x-1)^9 + 2(x-1)^{13} \rangle$	Eq. (62)
341	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^9 + 2(x-1)^{13} \rangle$	
342	$\langle (x-1)^{17} + 2 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{13} \rangle$	
343	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{13} \rangle$	
344	$\langle (x-1)^{17} + 2 + 2(x-1)^9 + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
345	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^9 + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
346	$\langle (x-1)^{17} + 2 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
347	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
348	$\langle (x-1)^{17} + 2 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
349	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
350	$\langle (x-1)^{17} + 2 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
351	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
352	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12} \rangle$	
353	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{12} \rangle$	
354	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12} \rangle$	
355	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{12} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
356	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
357	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
358	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
359	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
360	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
361	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
362	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
363	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
364	$\langle (x-1)^{17} + 2 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{13} \rangle$	Eq. (63)
365	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{13} \rangle$	
366	$\langle (x-1)^{17} + 2 + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
367	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
368	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
369	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
370	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
371	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
372	$\langle (x-1)^{17} + 2 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	Eq. (64)
373	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
374	$\langle (x-1)^{17} + 2 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
375	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
376	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
377	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
378	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{14} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
379	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{14} \rangle$	
380	$\langle (x-1)^{17} + 2 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	Eq. (65)
381	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
382	$\langle (x-1)^{17} + 2 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
383	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
384	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
385	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
386	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
387	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
388	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^{12} \rangle$	Eq. (66)
389	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^{12} \rangle$	
390	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
391	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
392	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{14} \rangle$	
393	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{14} \rangle$	
394	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
395	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
396	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^{12} \rangle$	Eq. (67)
397	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^{12} \rangle$	
398	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
399	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
400	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} \rangle$	
401	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} \rangle$	
402	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
403	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators	
404	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	Eq. (68)	
405	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		
406	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
407	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
408	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
409	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
410	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$		
411	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$		
412	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		Eq. (69)
413	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		
414	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
415	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
416	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{13} \rangle$		
417	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{13} \rangle$		
418	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$		
419	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$		
420	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^{11} \rangle$	Eq. (70)	
421	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^{11} \rangle$		
422	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{14} \rangle$		
423	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{14} \rangle$		
424	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
425	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
426	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$		
427	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$		
428	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^{11} \rangle$		Eq. (71)

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators	
429	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^{11} \rangle$		
430	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{14} \rangle$		
431	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{14} \rangle$		
432	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{13} \rangle$		
433	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{13} \rangle$		
434	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$		
435	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$		
436	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{13} \rangle$		Eq. (72)
437	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{13} \rangle$		
438	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
439	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
440	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{14} \rangle$		
441	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{14} \rangle$		
442	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
443	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
444	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{13} \rangle$	Eq. (73)	
445	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{13} \rangle$		
446	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
447	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
448	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} \rangle$		
449	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} \rangle$		
450	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		
451	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		
452	$\langle (x-1)^{17} + 2 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		Eq. (74)
453	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
454	$\langle (x-1)^{17} + 2 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
455	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
456	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
457	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
458	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	
459	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} \rangle$	
460	$\langle (x-1)^{17} + 2 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	Eq. (75)
461	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
462	$\langle (x-1)^{17} + 2 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
463	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
464	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
465	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
466	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{14} \rangle$	
467	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{14} \rangle$	
468	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{13} \rangle$	Eq. (76)
469	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{13} \rangle$	
470	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
471	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
472	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} \rangle$	
473	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} \rangle$	
474	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
475	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
476	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{13} \rangle$	Eq. (77)

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators	
477	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{13} \rangle$		
478	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
479	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
480	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{14} \rangle$		
481	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{14} \rangle$		
482	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
483	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
484	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} \rangle$		Eq. (78)
485	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} \rangle$		
486	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{14} \rangle$		
487	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{14} \rangle$		
488	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{13} \rangle$		
489	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{13} \rangle$		
490	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$		
491	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$		
492	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	Eq. (79)	
493	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{13} \rangle$		
494	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
495	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$		
496	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} \rangle$		
497	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} \rangle$		
498	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{14} \rangle$		
499	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{14} \rangle$		
500	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^{10} + 2(x-1)^{13} \rangle$		
501	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^{10} + 2(x-1)^{13} \rangle$		

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
502	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
503	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
504	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
505	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} \rangle$	
506	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
507	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
508	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	Eq. (80)
509	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
510	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
511	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
512	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^{10} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
513	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^{10} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
514	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
515	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
516	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{12} \rangle$	Eq. (81)
517	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{12} \rangle$	
518	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
519	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
520	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^{10} \rangle$	
521	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^{10} \rangle$	
522	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
523	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} \rangle$	
524	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12} \rangle$	Eq. (82)
525	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
526	$\langle (x-1)^{17} + 2 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
527	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{14} \rangle$	
528	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^{10} + 2(x-1)^{14} \rangle$	
529	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^{10} + 2(x-1)^{14} \rangle$	
530	$\langle (x-1)^{17} + 2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
531	$\langle (x-1)^{17} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13} + 2(x-1)^{14} \rangle$	
532	$\langle (x-1)^{29}, 2(x-1)^3 \rangle$	Eq. (83)
533	$\langle (x-1)^{29} + 2(x-1), 2(x-1)^3 \rangle$	Eq. (84)
534	$\langle (x-1)^{29} + 2(x-1) + 2(x-1)^2, 2(x-1)^3 \rangle$	
535	$\langle (x-1)^{29} + 2(x-1)^2, 2(x-1)^3 \rangle$	
536	$\langle (x-1)^{27}, 2(x-1)^5 \rangle$	Eq. (85)
537	$\langle (x-1)^{27} + 2(x-1)^3, 2(x-1)^5 \rangle$	
538	$\langle (x-1)^{25}, 2(x-1)^7 \rangle$	
539	$\langle (x-1)^{25} + 2(x-1), 2(x-1)^7 \rangle$	
540	$\langle (x-1)^{27} + 2(x-1) + 2(x-1)^2, 2(x-1)^5 \rangle$	Eq. (86)
541	$\langle (x-1)^{27} + 2(x-1) + 2(x-1)^2 + 2(x-1)^3, 2(x-1)^5 \rangle$	Eq. (87)
542	$\langle (x-1)^{27} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4, 2(x-1)^5 \rangle$	
543	$\langle (x-1)^{27} + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4, 2(x-1)^5 \rangle$	
544	$\langle (x-1)^{25} + 2(x-1)^6, 2(x-1)^7 \rangle$	Eq. (88)
545	$\langle (x-1)^{25} + 2(x-1) + 2(x-1)^6, 2(x-1)^7 \rangle$	
546	$\langle (x-1)^{26} + 2(x-1)^5, 2(x-1)^6 \rangle$	
547	$\langle (x-1)^{26} + 2(x-1)^2 + 2(x-1)^5, 2(x-1)^6 \rangle$	
548	$\langle (x-1)^{25} + 2(x-1)^3 + 2(x-1)^4, 2(x-1)^7 \rangle$	Eq. (89)
549	$\langle (x-1)^{25} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5, 2(x-1)^7 \rangle$	
550	$\langle (x-1)^{25} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4, 2(x-1)^7 \rangle$	
551	$\langle (x-1)^{25} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5, 2(x-1)^7 \rangle$	
552	$\langle (x-1)^{23} + 2(x-1)^6, 2(x-1)^9 \rangle$	Eq. (90)
553	$\langle (x-1)^{23} + 2(x-1)^6 + 2(x-1)^7, 2(x-1)^9 \rangle$	
554	$\langle (x-1)^{23} + 2(x-1)^6 + 2(x-1)^8, 2(x-1)^9 \rangle$	Eq. (91)
555	$\langle (x-1)^{23} + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^9 \rangle$	Eq. (92)
556	$\langle (x-1)^{23} + 2(x-1)^5, 2(x-1)^9 \rangle$	
557	$\langle (x-1)^{23} + 2(x-1)^5 + 2(x-1)^7, 2(x-1)^9 \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
558	$\langle (x-1)^{23} + 2(x-1)^5 + 2(x-1)^8, 2(x-1)^9 \rangle$	Eq. (93)
559	$\langle (x-1)^{23} + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^9 \rangle$	
560	$\langle (x-1)^{23} + 2(x-1)^3, 2(x-1)^9 \rangle$	Eq. (94)
561	$\langle (x-1)^{23} + 2(x-1)^3 + 2(x-1)^7, 2(x-1)^9 \rangle$	
562	$\langle (x-1)^{23} + 2(x-1)^3 + 2(x-1)^8, 2(x-1)^9 \rangle$	Eq. (95)
563	$\langle (x-1)^{23} + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^9 \rangle$	
564	$\langle (x-1)^{23} + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6, 2(x-1)^9 \rangle$	Eq. (96)
565	$\langle (x-1)^{23} + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7, 2(x-1)^9 \rangle$	
566	$\langle (x-1)^{23} + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8, 2(x-1)^9 \rangle$	Eq. (97)
567	$\langle (x-1)^{23} + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^9 \rangle$	
568	$\langle (x-1)^{23} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4, 2(x-1)^9 \rangle$	Eq. (98)
569	$\langle (x-1)^{23} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^7, 2(x-1)^9 \rangle$	
570	$\langle (x-1)^{23} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6, 2(x-1)^9 \rangle$	
571	$\langle (x-1)^{23} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7, 2(x-1)^9 \rangle$	
572	$\langle (x-1)^{23} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^8, 2(x-1)^9 \rangle$	Eq. (99)
573	$\langle (x-1)^{23} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^9 \rangle$	
574	$\langle (x-1)^{23} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8, 2(x-1)^9 \rangle$	
575	$\langle (x-1)^{23} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^9 \rangle$	Eq. (100)
576	$\langle (x-1)^{23} + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6, 2(x-1)^9 \rangle$	
577	$\langle (x-1)^{23} + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7, 2(x-1)^9 \rangle$	
578	$\langle (x-1)^{23} + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5, 2(x-1)^9 \rangle$	
579	$\langle (x-1)^{23} + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7, 2(x-1)^9 \rangle$	Eq. (101)
580	$\langle (x-1)^{23} + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8, 2(x-1)^9 \rangle$	
581	$\langle (x-1)^{23} + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^9 \rangle$	
582	$\langle (x-1)^{23} + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^8, 2(x-1)^9 \rangle$	Eq. (102)
583	$\langle (x-1)^{23} + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^9 \rangle$	
584	$\langle (x-1)^{21} + 2(x-1)^4, 2(x-1)^{11} \rangle$	Eq. (103)
585	$\langle (x-1)^{21} + 2(x-1)^4 + 2(x-1)^5, 2(x-1)^{11} \rangle$	
586	$\langle (x-1)^{21} + 2(x-1)^4 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
587	$\langle (x-1)^{21} + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
588	$\langle (x-1)^{21} + 2(x-1)^4 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^{11} \rangle$	Eq. (103)
589	$\langle (x-1)^{21} + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^{11} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
590	$\langle (x-1)^{21} + 2(x-1)^4 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
591	$\langle (x-1)^{21} + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
592	$\langle (x-1)^{21} + 2(x-1)^4 + 2(x-1)^9, 2(x-1)^{11} \rangle$	Eq. (104)
593	$\langle (x-1)^{21} + 2(x-1)^4 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{11} \rangle$	
594	$\langle (x-1)^{21} + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^9, 2(x-1)^{11} \rangle$	
595	$\langle (x-1)^{21} + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{11} \rangle$	
596	$\langle (x-1)^{21} + 2(x-1)^4 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
597	$\langle (x-1)^{21} + 2(x-1)^4 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
598	$\langle (x-1)^{21} + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
599	$\langle (x-1)^{21} + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
600	$\langle (x-1)^{21} + 2(x-1)^3, 2(x-1)^{11} \rangle$	Eq. (105)
601	$\langle (x-1)^{21} + 2(x-1)^3 + 2(x-1)^9, 2(x-1)^{11} \rangle$	
602	$\langle (x-1)^{21} + 2(x-1)^3 + 2(x-1)^5, 2(x-1)^{11} \rangle$	
603	$\langle (x-1)^{21} + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^9, 2(x-1)^{11} \rangle$	
604	$\langle (x-1)^{21} + 2(x-1)^3 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	Eq. (106)
605	$\langle (x-1)^{21} + 2(x-1)^3 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
606	$\langle (x-1)^{21} + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
607	$\langle (x-1)^{21} + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
608	$\langle (x-1)^{21} + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^{11} \rangle$	Eq. (107)
609	$\langle (x-1)^{21} + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{11} \rangle$	
610	$\langle (x-1)^{21} + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^{11} \rangle$	
611	$\langle (x-1)^{21} + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{11} \rangle$	
612	$\langle (x-1)^{21} + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	Eq. (108)
613	$\langle (x-1)^{21} + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
614	$\langle (x-1)^{21} + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
615	$\langle (x-1)^{21} + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
616	$\langle (x-1)^{21} + 2(x-1), 2(x-1)^{11} \rangle$	Eq. (109)
617	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^5, 2(x-1)^{11} \rangle$	
618	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	Eq. (110)
619	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^5 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
620	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^9, 2(x-1)^{11} \rangle$	Eq. (111)
621	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^5 + 2(x-1)^9, 2(x-1)^{11} \rangle$	
622	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	Eq. (112)

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
623	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^5 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
624	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^{11} \rangle$	Eq. (113)
625	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{11} \rangle$	
626	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^{11} \rangle$	
627	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{11} \rangle$	
628	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
629	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
630	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
631	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
632	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^{11} \rangle$	
633	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{11} \rangle$	
634	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^{11} \rangle$	
635	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{11} \rangle$	
636	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
637	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
638	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
639	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
640	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4, 2(x-1)^{11} \rangle$	Eq. (115)
641	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^9, 2(x-1)^{11} \rangle$	
642	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5, 2(x-1)^{11} \rangle$	
643	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^9, 2(x-1)^{11} \rangle$	
644	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
645	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
646	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
647	$\langle (x-1)^{21} + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{11} \rangle$	
648	$\langle (x-1)^{19} + 2(x-1)^2, 2(x-1)^{13} \rangle$	
649	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3, 2(x-1)^{13} \rangle$	
650	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$	
651	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$	
652	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
653	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
654	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
655	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
656	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	Eq. (117)
657	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
658	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{13} \rangle$	
659	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{13} \rangle$	
660	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
661	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
662	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{13} \rangle$	
663	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{13} \rangle$	
664	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	Eq. (118)
665	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
666	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^{11}, 2(x-1)^{13} \rangle$	
667	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^{11}, 2(x-1)^{13} \rangle$	
668	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
669	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
670	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{13} \rangle$	
671	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{13} \rangle$	
672	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{13} \rangle$	Eq. (119)
673	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{13} \rangle$	
674	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$	
675	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$	
676	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
677	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators	
678	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	Eq. (120)	
679	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
680	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^7 + 2(x-1)^9, 2(x-1)^{13} \rangle$		
681	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^9, 2(x-1)^{13} \rangle$		
682	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^7 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$		
683	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$		
684	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
685	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
686	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
687	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
688	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	Eq. (121)	
689	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
690	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11}, 2(x-1)^{13} \rangle$		
691	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11}, 2(x-1)^{13} \rangle$		
692	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
693	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
694	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{13} \rangle$		
695	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{13} \rangle$		
696	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		Eq. (122)
697	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
698	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{13} \rangle$		
699	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{13} \rangle$		
700	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
701	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
702	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{13} \rangle$	
703	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{13} \rangle$	
704	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^{13} \rangle$	Eq. (123)
705	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^{13} \rangle$	
706	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$	
707	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$	
708	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
709	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
710	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
711	$\langle (x-1)^{19} + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
712	$\langle (x-1)^{22} + 2(x-1)^5, 2(x-1)^{10} \rangle$	Eq. (124)
713	$\langle (x-1)^{22} + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{10} \rangle$	
714	$\langle (x-1)^{22} + 2(x-1)^5 + 2(x-1)^6, 2(x-1)^{10} \rangle$	
715	$\langle (x-1)^{22} + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{10} \rangle$	
716	$\langle (x-1)^{22} + 2(x-1)^5 + 2(x-1)^9, 2(x-1)^{10} \rangle$	Eq. (125)
717	$\langle (x-1)^{22} + 2(x-1)^5 + 2(x-1)^8, 2(x-1)^{10} \rangle$	
718	$\langle (x-1)^{22} + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9, 2(x-1)^{10} \rangle$	
719	$\langle (x-1)^{22} + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8, 2(x-1)^{10} \rangle$	
720	$\langle (x-1)^{22} + 2(x-1)^4, 2(x-1)^{10} \rangle$	Eq. (126)
721	$\langle (x-1)^{22} + 2(x-1)^4 + 2(x-1)^6, 2(x-1)^{10} \rangle$	
722	$\langle (x-1)^{22} + 2(x-1)^4 + 2(x-1)^9, 2(x-1)^{10} \rangle$	Eq. (127)
723	$\langle (x-1)^{22} + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^9, 2(x-1)^{10} \rangle$	
724	$\langle (x-1)^{22} + 2(x-1)^4 + 2(x-1)^8, 2(x-1)^{10} \rangle$	Eq. (128)
725	$\langle (x-1)^{22} + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8, 2(x-1)^{10} \rangle$	
726	$\langle (x-1)^{22} + 2(x-1)^4 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{10} \rangle$	Eq. (129)
727	$\langle (x-1)^{22} + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{10} \rangle$	
728	$\langle (x-1)^{22} + 2(x-1)^2, 2(x-1)^{10} \rangle$	Eq. (130)
729	$\langle (x-1)^{22} + 2(x-1)^2 + 2(x-1)^6, 2(x-1)^{10} \rangle$	
730	$\langle (x-1)^{22} + 2(x-1)^2 + 2(x-1)^9, 2(x-1)^{10} \rangle$	Eq. (131)
731	$\langle (x-1)^{22} + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9, 2(x-1)^{10} \rangle$	
732	$\langle (x-1)^{22} + 2(x-1)^2 + 2(x-1)^8, 2(x-1)^{10} \rangle$	Eq. (132)

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators	
733	$\langle (x-1)^{22} + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8, 2(x-1)^{10} \rangle$		
734	$\langle (x-1)^{22} + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{10} \rangle$	Eq. (133)	
735	$\langle (x-1)^{22} + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{10} \rangle$		
736	$\langle (x-1)^{22} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5, 2(x-1)^{10} \rangle$	Eq. (134)	
737	$\langle (x-1)^{22} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^8, 2(x-1)^{10} \rangle$		
738	$\langle (x-1)^{22} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^9, 2(x-1)^{10} \rangle$		
739	$\langle (x-1)^{22} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{10} \rangle$		
740	$\langle (x-1)^{22} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6, 2(x-1)^{10} \rangle$		
741	$\langle (x-1)^{22} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8, 2(x-1)^{10} \rangle$		
742	$\langle (x-1)^{22} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9, 2(x-1)^{10} \rangle$		
743	$\langle (x-1)^{22} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{10} \rangle$		
744	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^3 \rangle$		Eq. (135)
745	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^8 + 2(x-1)^9 \rangle$		
746	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^6 \rangle$		
747	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 \rangle$		
748	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 \rangle$		
749	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 \rangle$		
750	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 \rangle$		
751	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 \rangle$		
752	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^9 \rangle$	Eq. (136)	
753	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^8 \rangle$		
754	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^9 \rangle$		
755	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^8 \rangle$		
756	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^9 \rangle$		
757	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^8 \rangle$		
758	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 \rangle$		
759	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 \rangle$		
760	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^9 \rangle$	Eq. (137)	
761	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^8 \rangle$		
762	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^9 \rangle$		
763	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 \rangle$		
764	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^9 \rangle$		
765	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^8 \rangle$		
766	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^9 \rangle$		
767	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 \rangle$		

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
768	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 \rangle$	Eq. (138)
769	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^8 + 2(x-1)^9 \rangle$	
770	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 \rangle$	
771	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 \rangle$	
772	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 \rangle$	
773	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^8 + 2(x-1)^9 \rangle$	
774	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 \rangle$	
775	$\langle (x-1)^{22} + 2 + 2(x-1) + 2(x-1)^2 + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 \rangle$	
776	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9, 2(x-1)^{12} \rangle$	Eq. (139)
777	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9, 2(x-1)^{12} \rangle$	
778	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
779	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
780	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^{10}, 2(x-1)^{12} \rangle$	
781	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^{10}, 2(x-1)^{12} \rangle$	
782	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
783	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
784	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^8, 2(x-1)^{12} \rangle$	Eq. (140)
785	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^8, 2(x-1)^{12} \rangle$	
786	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
787	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
788	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{12} \rangle$	
789	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{12} \rangle$	
790	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
791	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
792	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{12} \rangle$	Eq. (141)
793	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{12} \rangle$	
794	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
795	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators	
796	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{12} \rangle$	Eq. (142)	
797	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{12} \rangle$		
798	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^8 + 2(x-1)^{11}, 2(x-1)^{12} \rangle$		
799	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^8 + 2(x-1)^{11}, 2(x-1)^{12} \rangle$		
800	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9, 2(x-1)^{12} \rangle$		
801	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9, 2(x-1)^{12} \rangle$		
802	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{12} \rangle$		
803	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{12} \rangle$		
804	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{12} \rangle$		
805	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{12} \rangle$		
806	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{12} \rangle$		
807	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{12} \rangle$		
808	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{12} \rangle$		Eq. (143)
809	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{12} \rangle$		
810	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{12} \rangle$		
811	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{12} \rangle$		
812	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{12} \rangle$		
813	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{12} \rangle$		
814	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{12} \rangle$		
815	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{12} \rangle$		
816	$\langle (x-1)^{20} + 2(x-1)^3, 2(x-1)^{12} \rangle$	Eq. (144)	
817	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^4, 2(x-1)^{12} \rangle$		
818	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{12} \rangle$		
819	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{12} \rangle$		
820	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{12} \rangle$		

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
821	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{12} \rangle$	
822	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
823	$\langle (x-1)^{20} + 2(x-1)^3 + 2(x-1)^4 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
824	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^8, 2(x-1)^{12} \rangle$	Eq. (145)
825	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^8, 2(x-1)^{12} \rangle$	
826	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^{10}, 2(x-1)^{12} \rangle$	
827	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^{10}, 2(x-1)^{12} \rangle$	
828	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
829	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
830	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
831	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
832	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
833	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^8 + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	Eq. (146)
834	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
835	$\langle (x-1)^{20} + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{12} \rangle$	
836	$\langle (x-1)^{19} + 2(x-1), 2(x-1)^{13} \rangle$	Eq. (147)
837	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^7 + 2(x-1)^9, 2(x-1)^{13} \rangle$	
838	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3, 2(x-1)^{13} \rangle$	
839	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^9, 2(x-1)^{13} \rangle$	
840	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
841	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
842	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	Eq. (148)
843	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
844	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{13} \rangle$	
845	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^{13} \rangle$	Eq. (149)
846	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{13} \rangle$	
847	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8, 2(x-1)^{13} \rangle$	
848	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$	
849	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$	
850	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$	
851	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$	
852	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
853	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$	
854	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$	
855	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$	
856	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{13} \rangle$	
857	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{13} \rangle$	
858	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{13} \rangle$	
859	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{13} \rangle$	
860	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	Eq. (150)
861	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
862	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
863	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
864	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
865	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
866	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
867	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
868	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
869	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
870	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
871	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
872	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	
873	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators	
874	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
875	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
876	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^{11}, 2(x-1)^{13} \rangle$		Eq. (151)
877	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{13} \rangle$		
878	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^{11}, 2(x-1)^{13} \rangle$		
879	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{13} \rangle$		
880	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$	Eq. (152)	
881	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^7 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$		
882	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$		
883	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^{10}, 2(x-1)^{13} \rangle$		
884	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{13} \rangle$		
885	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{13} \rangle$		
886	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{13} \rangle$		
887	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{13} \rangle$		
888	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	Eq. (153)	
889	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
890	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
891	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
892	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$	Eq. (154)	
893	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
894	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
895	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
896	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
897	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
898	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
899	$\langle (x-1)^{19} + 2(x-1) + 2(x-1)^3 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{13} \rangle$		
900	$\langle (x-1)^{18} + 2(x-1), 2(x-1)^{14} \rangle$	Eq. (155)	
901	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{14} \rangle$		
902	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2, 2(x-1)^{14} \rangle$		
903	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9, 2(x-1)^{14} \rangle$		
904	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
905	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators	
906	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
907	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
908	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
909	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
910	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
911	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
912	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^6 + 2(x-1)^9, 2(x-1)^{14} \rangle$		Eq. (156)
913	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^6 + 2(x-1)^8, 2(x-1)^{14} \rangle$		
914	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9, 2(x-1)^{14} \rangle$		
915	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8, 2(x-1)^{14} \rangle$		
916	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
917	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
918	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
919	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
920	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	Eq. (157)	
921	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
922	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
923	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
924	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{14} \rangle$		
925	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{14} \rangle$		
926	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{14} \rangle$		
927	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{14} \rangle$		
928	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
929	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
930	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
931	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
932	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	Eq. (158)
933	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
934	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
935	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
936	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{14} \rangle$	
937	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{14} \rangle$	
938	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
939	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
940	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{12}, 2(x-1)^{14} \rangle$	Eq. (159)
941	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{12}, 2(x-1)^{14} \rangle$	
942	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{12}, 2(x-1)^{14} \rangle$	
943	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{12}, 2(x-1)^{14} \rangle$	
944	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{14} \rangle$	
945	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11}, 2(x-1)^{14} \rangle$	
946	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
947	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
948	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{14} \rangle$	Eq. (160)
949	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{14} \rangle$	
950	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10}, 2(x-1)^{14} \rangle$	
951	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10}, 2(x-1)^{14} \rangle$	
952	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
953	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
954	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$	
955	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$	
956	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	Eq. (161)
957	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
958	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
959	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
960	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$	
961	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$	
962	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
963	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
964	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	Eq. (162)
965	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
966	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
967	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
968	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$	
969	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$	
970	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
971	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{11} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
972	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11}, 2(x-1)^{14} \rangle$	Eq. (163)
973	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11}, 2(x-1)^{14} \rangle$	
974	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^{10} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
975	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
976	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^{10} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
977	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators	
978	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
979	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
980	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{11}, 2(x-1)^{14} \rangle$		Eq. (164)
981	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{11}, 2(x-1)^{14} \rangle$		
982	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
983	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
984	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
985	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
986	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
987	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	Eq. (165)	
988	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{14} \rangle$		
989	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{14} \rangle$		
990	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
991	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
992	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
993	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
994	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
995	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		
996	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{14} \rangle$		Eq. (166)
997	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11}, 2(x-1)^{14} \rangle$		
998	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
999	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
1000	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
1001	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$		
1002	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$		

Table 2: Cyclic self-dual codes over \mathbb{Z}_4 of length 32 (Continued)

No.	Generator polynomials	Lee weight enumerators
1003	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
1004	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	Eq. (167)
1005	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
1006	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$	
1007	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$	
1008	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
1009	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
1010	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
1011	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
1012	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	Eq. (168)
1013	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^8 + 2(x-1)^9 + 2(x-1)^{11} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
1014	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$	
1015	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^4 + 2(x-1)^5 + 2(x-1)^6 + 2(x-1)^7 + 2(x-1)^{11} + 2(x-1)^{12}, 2(x-1)^{14} \rangle$	
1016	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
1017	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
1018	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^9 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	
1019	$\langle (x-1)^{18} + 2(x-1) + 2(x-1)^2 + 2(x-1)^6 + 2(x-1)^8 + 2(x-1)^{10} + 2(x-1)^{12} + 2(x-1)^{13}, 2(x-1)^{14} \rangle$	

There are exactly 168 Lee weight enumerators of cyclic self-dual codes over \mathbb{Z}_4 of length 32.

- $$\begin{aligned}
& x^{64} + 32x^{62}y^2 + 496x^{60}y^4 + 4960x^{58}y^6 + 35960x^{56}y^8 + 201376x^{54}y^{10} + 906192x^{52}y^{12} + 3365856x^{50}y^{14} \\
& + 10518300x^{48}y^{16} + 28048800x^{46}y^{18} + 64512240x^{44}y^{20} + 129024480x^{42}y^{22} + 225792840x^{40}y^{24} \\
& + 347373600x^{38}y^{26} + 471435600x^{36}y^{28} + 565722720x^{34}y^{30} + 601080390x^{32}y^{32} + 565722720x^{30}y^{34} \\
& + 471435600x^{28}y^{36} + 347373600x^{26}y^{38} + 225792840x^{24}y^{40} + 129024480x^{22}y^{42} + 64512240x^{20}y^{44} \\
& + 28048800x^{18}y^{46} + 10518300x^{16}y^{48} + 3365856x^{14}y^{50} + 906192x^{12}y^{52} + 201376x^{10}y^{54} + 35960x^8y^{56} \\
& + 4960x^6y^{58} + 496x^4y^{60} + 32x^2y^{62} + y^{64}
\end{aligned} \tag{1}$$

- $$\begin{aligned}
& x^{64} + 496x^{60}y^4 + 35960x^{56}y^8 + 906192x^{52}y^{12} + 10518300x^{48}y^{16} + 64512240x^{44}y^{20} + 225792840x^{40}y^{24} \\
& + 471435600x^{36}y^{28} + 2748564038x^{32}y^{32} + 471435600x^{28}y^{36} + 225792840x^{24}y^{40} + 64512240x^{20}y^{44} \\
& + 10518300x^{16}y^{48} + 906192x^{12}y^{52} + 35960x^8y^{56} + 496x^4y^{60} + y^{64}
\end{aligned} \tag{2}$$

- $$\begin{aligned}
& x^{64} + 240x^{60}y^4 + 18040x^{56}y^8 + 452816x^{52}y^{12} + 5325596x^{48}y^{16} + 40118256x^{44}y^{20} + 232175944x^{40}y^{24} \\
& + 760524368x^{36}y^{28} + 2217736774x^{32}y^{32} + 760524368x^{28}y^{36} + 232175944x^{24}y^{40} + 40118256x^{20}y^{44} \\
& + 5325596x^{16}y^{48} + 452816x^{12}y^{52} + 18040x^8y^{56} + 240x^4y^{60} + y^{64}
\end{aligned} \tag{3}$$

- $$\begin{aligned}
& x^{64} + 240x^{60}y^4 + 18040x^{56}y^8 + 452816x^{52}y^{12} + 5260060x^{48}y^{16} + 1048576x^{46}y^{18} + 32253936x^{44}y^{20} \\
& + 36700160x^{42}y^{22} + 112900424x^{40}y^{24} + 286261248x^{38}y^{26} + 235712080x^{36}y^{28} + 749731840x^{34}y^{30} \\
& + 1374288454x^{32}y^{32} + 749731840x^{30}y^{34} + 235712080x^{28}y^{36} + 286261248x^{26}y^{38} + 112900424x^{24}y^{40} \\
& + 36700160x^{22}y^{42} + 32253936x^{20}y^{44} + 1048576x^{18}y^{46} + 5260060x^{16}y^{48} + 452816x^{12}y^{52} + 18040x^8y^{56} \\
& + 240x^4y^{60} + y^{64}
\end{aligned} \tag{4}$$

- $$\begin{aligned}
& x^{64} + 112x^{60}y^4 + 5496x^{56}y^8 + 154448x^{52}y^{12} + 2722076x^{48}y^{16} + 30888816x^{44}y^{20} + 221665864x^{40}y^{24} \\
& + 935203024x^{36}y^{28} + 1913687622x^{32}y^{32} + 935203024x^{28}y^{36} + 221665864x^{24}y^{40} + 30888816x^{20}y^{44} \\
& + 2722076x^{16}y^{48} + 154448x^{12}y^{52} + 5496x^8y^{56} + 112x^4y^{60} + y^{64}
\end{aligned} \tag{5}$$

- $$\begin{aligned}
& x^{64} + 112x^{60}y^4 + 4984x^{56}y^8 + 111440x^{52}y^{12} + 262144x^{50}y^{14} + 1410332x^{48}y^{16} + 5505024x^{46}y^{18} + 13585264x^{44}y^{20} \\
& + 44040192x^{42}y^{22} + 119045192x^{40}y^{24} + 234881024x^{38}y^{26} + 449757392x^{36}y^{28} + 789053440x^{34}y^{30} + 979654214x^{32}y^{32} \\
& + 789053440x^{30}y^{34} + 449757392x^{28}y^{36} + 234881024x^{26}y^{38} + 119045192x^{24}y^{40} + 44040192x^{22}y^{42} + 13585264x^{20}y^{44} \\
& + 5505024x^{18}y^{46} + 1410332x^{16}y^{48} + 262144x^{14}y^{50} + 111440x^{12}y^{52} + 4984x^8y^{56} + 112x^4y^{60} + y^{64}
\end{aligned} \tag{6}$$

- $$\begin{aligned}
& x^{64} + 112x^{60}y^4 + 4984x^{56}y^8 + 4096x^{54}y^{10} + 111440x^{52}y^{12} + 258048x^{50}y^{14} + 1344796x^{48}y^{16} + 5419008x^{46}y^{18} \\
& + 14109552x^{44}y^{20} + 44388352x^{42}y^{22} + 117210184x^{40}y^{24} + 234332160x^{38}y^{26} + 453427408x^{36}y^{28} + 789340160x^{34}y^{30} \\
& + 975066694x^{32}y^{32} + 789340160x^{30}y^{34} + 453427408x^{28}y^{36} + 234332160x^{26}y^{38} + 117210184x^{24}y^{40} + 44388352x^{22}y^{42} \\
& + 14109552x^{20}y^{44} + 5419008x^{18}y^{46} + 1344796x^{16}y^{48} + 258048x^{14}y^{50} + 111440x^{12}y^{52} + 4096x^{10}y^{54} + 4984x^8y^{56} \\
& + 112x^4y^{60} + y^{64}
\end{aligned} \tag{7}$$

- $$\begin{aligned}
& x^{64} + 112x^{60}y^4 + 4984x^{56}y^8 + 144208x^{52}y^{12} + 2721052x^{48}y^{16} + 31312752x^{44}y^{20} + 219708488x^{40}y^{24} \\
& + 939507920x^{36}y^{28} + 1908168262x^{32}y^{32} + 939507920x^{28}y^{36} + 219708488x^{24}y^{40} + 31312752x^{20}y^{44} \\
& + 2721052x^{16}y^{48} + 144208x^{12}y^{52} + 4984x^8y^{56} + 112x^4y^{60} + y^{64}
\end{aligned} \tag{8}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 2808x^{56}y^8 + 76944x^{52}y^{12} + 1361948x^{48}y^{16} + 1048576x^{46}y^{18} + 15442224x^{44}y^{20} + 36700160x^{42}y^{22} \\
& + 110836936x^{40}y^{24} + 286261248x^{38}y^{26} + 467595792x^{36}y^{28} + 749731840x^{34}y^{30} + 956850246x^{32}y^{32} + 749731840x^{30}y^{34} \\
& + 467595792x^{28}y^{36} + 286261248x^{26}y^{38} + 110836936x^{24}y^{40} + 36700160x^{22}y^{42} + 15442224x^{20}y^{44} + 1048576x^{18}y^{46} \\
& + 1361948x^{16}y^{48} + 76944x^{12}y^{52} + 2808x^8y^{56} + 48x^4y^{60} + y^{64}
\end{aligned} \tag{9}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 1784x^{56}y^8 + 4096x^{54}y^{10} + 40080x^{52}y^{12} + 126976x^{50}y^{14} + 671772x^{48}y^{16} + 3190784x^{46}y^{18} \\
& + 11882800x^{44}y^{20} + 40718336x^{42}y^{22} + 114393288x^{40}y^{24} + 260022272x^{38}y^{26} + 497406480x^{36}y^{28} + 769679360x^{34}y^{30} \\
& + 898691142x^{32}y^{32} + 769679360x^{30}y^{34} + 497406480x^{28}y^{36} + 260022272x^{26}y^{38} + 114393288x^{24}y^{40} + 40718336x^{22}y^{42} \\
& + 11882800x^{20}y^{44} + 3190784x^{18}y^{46} + 671772x^{16}y^{48} + 126976x^{14}y^{50} + 40080x^{12}y^{52} + 4096x^{10}y^{54} + 1784x^8y^{56} \\
& + 48x^4y^{60} + y^{64}
\end{aligned} \tag{10}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 1784x^{56}y^8 + 56464x^{52}y^{12} + 1425436x^{48}y^{16} + 24154416x^{44}y^{20} + 226197704x^{40}y^{24} + 1001017872x^{36}y^{28} \\
& + 1789259846x^{32}y^{32} + 1001017872x^{28}y^{36} + 226197704x^{24}y^{40} + 24154416x^{20}y^{44} + 1425436x^{16}y^{48} + 56464x^{12}y^{52} \\
& + 1784x^8y^{56} + 48x^4y^{60} + y^{64}
\end{aligned} \tag{11}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 256x^{58}y^6 + 1272x^{56}y^8 + 9472x^{54}y^{10} + 46224x^{52}y^{12} + 198144x^{50}y^{14} + 900124x^{48}y^{16} + 3569152x^{46}y^{18} \\
& + 11995440x^{44}y^{20} + 37552896x^{42}y^{22} + 108896968x^{40}y^{24} + 266450688x^{38}y^{26} + 514589200x^{36}y^{28} + 765961216x^{34}y^{30} \\
& + 874625094x^{32}y^{32} + 765961216x^{30}y^{34} + 514589200x^{28}y^{36} + 266450688x^{26}y^{38} + 108896968x^{24}y^{40} + 37552896x^{22}y^{42} \\
& + 11995440x^{20}y^{44} + 3569152x^{18}y^{46} + 900124x^{16}y^{48} + 198144x^{14}y^{50} + 46224x^{12}y^{52} + 9472x^{10}y^{54} + 1272x^8y^{56} \\
& + 256x^6y^{58} + 48x^4y^{60} + y^{64}
\end{aligned} \tag{12}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 1272x^{56}y^8 + 46224x^{52}y^{12} + 1424412x^{48}y^{16} + 24578352x^{44}y^{20} + 224240328x^{40}y^{24} + 1005322768x^{36}y^{28} \\
& + 1783740486x^{32}y^{32} + 1005322768x^{28}y^{36} + 224240328x^{24}y^{40} + 24578352x^{20}y^{44} + 1424412x^{16}y^{48} + 46224x^{12}y^{52} \\
& + 1272x^8y^{56} + 48x^4y^{60} + y^{64}
\end{aligned} \tag{13}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 2296x^{56}y^8 + 66704x^{52}y^{12} + 1426460x^{48}y^{16} + 23730480x^{44}y^{20} + 228155080x^{40}y^{24} + 996712976x^{36}y^{28} \\
& + 1794779206x^{32}y^{32} + 996712976x^{28}y^{36} + 228155080x^{24}y^{40} + 23730480x^{20}y^{44} + 1426460x^{16}y^{48} + 66704x^{12}y^{52} \\
& + 2296x^8y^{56} + 48x^4y^{60} + y^{64}
\end{aligned} \tag{14}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 1272x^{56}y^8 + 29840x^{52}y^{12} + 131072x^{50}y^{14} + 736284x^{48}y^{16} + 3276800x^{46}y^{18} + 11782448x^{44}y^{20} \\
& + 40370176x^{42}y^{22} + 114270920x^{40}y^{24} + 260571136x^{38}y^{26} + 498041360x^{36}y^{28} + 769392640x^{34}y^{30} + 897759302x^{32}y^{32} \\
& + 769392640x^{30}y^{34} + 498041360x^{28}y^{36} + 260571136x^{26}y^{38} + 114270920x^{24}y^{40} + 40370176x^{22}y^{42} + 11782448x^{20}y^{44} \\
& + 3276800x^{18}y^{46} + 736284x^{16}y^{48} + 131072x^{14}y^{50} + 29840x^{12}y^{52} + 1272x^8y^{56} + 48x^4y^{60} + y^{64}
\end{aligned} \tag{15}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 1016x^{56}y^8 + 28816x^{52}y^{12} + 114688x^{50}y^{14} + 727580x^{48}y^{16} + 3391488x^{46}y^{18} + 11916592x^{44}y^{20} \\
& + 40042496x^{42}y^{22} + 113718216x^{40}y^{24} + 261029888x^{38}y^{26} + 499218960x^{36}y^{28} + 769163264x^{34}y^{30} + 896261190x^{32}y^{32} \\
& + 769163264x^{30}y^{34} + 499218960x^{28}y^{36} + 261029888x^{26}y^{38} + 113718216x^{24}y^{40} + 40042496x^{22}y^{42} + 11916592x^{20}y^{44} \\
& + 3391488x^{18}y^{46} + 727580x^{16}y^{48} + 114688x^{14}y^{50} + 28816x^{12}y^{52} + 1016x^8y^{56} + 48x^4y^{60} + y^{64}
\end{aligned} \tag{16}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 1016x^{56}y^8 + 4096x^{54}y^{10} + 20624x^{52}y^{12} + 143360x^{50}y^{14} + 678428x^{48}y^{16} + 3076096x^{46}y^{18} \\
& + 12596528x^{44}y^{20} + 41046016x^{42}y^{22} + 111031240x^{40}y^{24} + 259563520x^{38}y^{26} + 504838672x^{36}y^{28} + 769908736x^{34}y^{30} \\
& + 889150534x^{32}y^{32} + 769908736x^{30}y^{34} + 504838672x^{28}y^{36} + 259563520x^{26}y^{38} + 111031240x^{24}y^{40} + 41046016x^{22}y^{42} \\
& + 12596528x^{20}y^{44} + 3076096x^{18}y^{46} + 678428x^{16}y^{48} + 143360x^{14}y^{50} + 20624x^{12}y^{52} + 4096x^{10}y^{54} + 1016x^8y^{56} \\
& + 48x^4y^{60} + y^{64}
\end{aligned} \tag{17}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 2040x^{56}y^8 + 61584x^{52}y^{12} + 1425948x^{48}y^{16} + 23942448x^{44}y^{20} + 227176392x^{40}y^{24} + 998865424x^{36}y^{28} \\
& + 1792019526x^{32}y^{32} + 998865424x^{28}y^{36} + 227176392x^{24}y^{40} + 23942448x^{20}y^{44} + 1425948x^{16}y^{48} + 61584x^{12}y^{52} \\
& + 2040x^8y^{56} + 48x^4y^{60} + y^{64}
\end{aligned} \tag{18}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 1016x^{56}y^8 + 41104x^{52}y^{12} + 1423900x^{48}y^{16} + 24790320x^{44}y^{20} + 223261640x^{40}y^{24} + 1007475216x^{36}y^{28} \\
& + 1780980806x^{32}y^{32} + 1007475216x^{28}y^{36} + 223261640x^{24}y^{40} + 24790320x^{20}y^{44} + 1423900x^{16}y^{48} + 41104x^{12}y^{52} \\
& + 1016x^8y^{56} + 48x^4y^{60} + y^{64}
\end{aligned} \tag{19}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 1848x^{56}y^8 + 1664x^{54}y^{10} + 39728x^{52}y^{12} + 126720x^{50}y^{14} + 551580x^{48}y^{16} + 2135808x^{46}y^{18} \\
& + 9188880x^{44}y^{20} + 35063168x^{42}y^{22} + 126686344x^{40}y^{24} + 258188160x^{38}y^{26} + 541519536x^{36}y^{28} + 711117312x^{34}y^{30} \\
& + 925725510x^{32}y^{32} + 711117312x^{30}y^{34} + 541519536x^{28}y^{36} + 258188160x^{26}y^{38} + 126686344x^{24}y^{40} + 35063168x^{22}y^{42} \\
& + 9188880x^{20}y^{44} + 2135808x^{18}y^{46} + 551580x^{16}y^{48} + 126720x^{14}y^{50} + 39728x^{12}y^{52} + 1664x^{10}y^{54} + 1848x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{20}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 824x^{56}y^8 + 1664x^{54}y^{10} + 23344x^{52}y^{12} + 93952x^{50}y^{14} + 705180x^{48}y^{16} + 1578752x^{46}y^{18} \\
& + 11269648x^{44}y^{20} + 34145664x^{42}y^{22} + 120445064x^{40}y^{24} + 264610688x^{38}y^{26} + 545746608x^{36}y^{28} + 706202112x^{34}y^{30} \\
& + 925320006x^{32}y^{32} + 706202112x^{30}y^{34} + 545746608x^{28}y^{36} + 264610688x^{26}y^{38} + 120445064x^{24}y^{40} + 34145664x^{22}y^{42} \\
& + 11269648x^{20}y^{44} + 1578752x^{18}y^{46} + 705180x^{16}y^{48} + 93952x^{14}y^{50} + 23344x^{12}y^{52} + 1664x^{10}y^{54} + 824x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{21}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 312x^{56}y^8 + 1664x^{54}y^{10} + 17200x^{52}y^{12} + 110336x^{50}y^{14} + 368284x^{48}y^{16} + 3036928x^{46}y^{18} \\
& + 8994320x^{44}y^{20} + 34997632x^{42}y^{22} + 124418696x^{40}y^{24} + 253141888x^{38}y^{26} + 555892400x^{36}y^{28} + 715344384x^{34}y^{30} + \\
& 902318918x^{32}y^{32} + 715344384x^{30}y^{34} + 555892400x^{28}y^{36} + 253141888x^{26}y^{38} + 124418696x^{24}y^{40} + 34997632x^{22}y^{42} \\
& + 8994320x^{20}y^{44} + 3036928x^{18}y^{46} + 368284x^{16}y^{48} + 110336x^{14}y^{50} + 17200x^{12}y^{52} + 1664x^{10}y^{54} + 312x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{22}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 384x^{58}y^6 + 312x^{56}y^8 + 4992x^{54}y^{10} + 58160x^{52}y^{12} + 85248x^{50}y^{14} + 581276x^{48}y^{16} + 4146432x^{46}y^{18} \\
& + 7953936x^{44}y^{20} + 29692032x^{42}y^{22} + 124353160x^{40}y^{24} + 262597248x^{38}y^{26} + 561086128x^{36}y^{28} + 710106624x^{34}y^{30} \\
& + 893635398x^{32}y^{32} + 710106624x^{30}y^{34} + 561086128x^{28}y^{36} + 262597248x^{26}y^{38} + 124353160x^{24}y^{40} + 29692032x^{22}y^{42} \\
& + 7953936x^{20}y^{44} + 4146432x^{18}y^{46} + 581276x^{16}y^{48} + 85248x^{14}y^{50} + 58160x^{12}y^{52} + 4992x^{10}y^{54} + 312x^8y^{56} \\
& + 384x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{23}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 312x^{56}y^8 + 1664x^{54}y^{10} + 33584x^{52}y^{12} + 28416x^{50}y^{14} + 499356x^{48}y^{16} + 2823936x^{46}y^{18} \\
& + 9993744x^{44}y^{20} + 33097088x^{42}y^{22} + 123370120x^{40}y^{24} + 260940672x^{38}y^{26} + 548585136x^{36}y^{28} + 709741056x^{34}y^{30} \\
& + 916736838x^{32}y^{32} + 709741056x^{30}y^{34} + 548585136x^{28}y^{36} + 260940672x^{26}y^{38} + 123370120x^{24}y^{40} + 33097088x^{22}y^{42} \\
& + 9993744x^{20}y^{44} + 2823936x^{18}y^{46} + 499356x^{16}y^{48} + 28416x^{14}y^{50} + 33584x^{12}y^{52} + 1664x^{10}y^{54} + 312x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{24}$$

- $$\begin{aligned}
& x^{64} + 80x^{60}y^4 + 128x^{58}y^6 + 3000x^{56}y^8 + 7808x^{54}y^{10} + 74224x^{52}y^{12} + 218880x^{50}y^{14} + 1277852x^{48}y^{16} + 3677952x^{46}y^{18} \\
& + 15130704x^{44}y^{20} + 38337920x^{42}y^{22} + 116594696x^{40}y^{24} + 238097280x^{38}y^{26} + 515882352x^{36}y^{28} + 726292992x^{34}y^{30} \\
& + 98377558x^{32}y^{32} + 726292992x^{30}y^{34} + 515882352x^{28}y^{36} + 238097280x^{26}y^{38} + 116594696x^{24}y^{40} + 38337920x^{22}y^{42} \\
& + 15130704x^{20}y^{44} + 3677952x^{18}y^{46} + 1277852x^{16}y^{48} + 218880x^{14}y^{50} + 74224x^{12}y^{52} + 7808x^{10}y^{54} + 3000x^8y^{56} \\
& + 128x^6y^{58} + 80x^4y^{60} + y^{64}
\end{aligned} \tag{25}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 1528x^{56}y^8 + 2048x^{54}y^{10} + 34960x^{52}y^{12} + 129024x^{50}y^{14} + 704028x^{48}y^{16} + 3233792x^{46}y^{18} \\
& + 11832624x^{44}y^{20} + 40544256x^{42}y^{22} + 114332104x^{40}y^{24} + 260296704x^{38}y^{26} + 497723920x^{36}y^{28} + 769536000x^{34}y^{30} \\
& + 898225222x^{32}y^{32} + 769536000x^{30}y^{34} + 497723920x^{28}y^{36} + 260296704x^{26}y^{38} + 114332104x^{24}y^{40} + 40544256x^{22}y^{42} \\
& + 11832624x^{20}y^{44} + 3233792x^{18}y^{46} + 704028x^{16}y^{48} + 129024x^{14}y^{50} + 34960x^{12}y^{52} + 2048x^{10}y^{54} + 1528x^8y^{56} \\
& + 48x^4y^{60} + y^{64}
\end{aligned} \tag{26}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 1528x^{56}y^8 + 51344x^{52}y^{12} + 1424924x^{48}y^{16} + 24366384x^{44}y^{20} + 225219016x^{40}y^{24} + 1003170320x^{36}y^{28} \\
& + 1786500166x^{32}y^{32} + 1003170320x^{28}y^{36} + 225219016x^{24}y^{40} + 24366384x^{20}y^{44} + 1424924x^{16}y^{48} + 51344x^{12}y^{52} \\
& + 1528x^8y^{56} + 48x^4y^{60} + y^{64}
\end{aligned} \tag{27}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 312x^{56}y^8 + 4912x^{52}y^{12} + 90112x^{50}y^{14} + 245404x^{48}y^{16} + 2711552x^{46}y^{18} + 9358864x^{44}y^{20} \\
& + 36995072x^{42}y^{22} + 125303432x^{40}y^{24} + 249331712x^{38}y^{26} + 551345840x^{36}y^{28} + 717504512x^{34}y^{30} + 909183814x^{32}y^{32} \\
& + 717504512x^{30}y^{34} + 551345840x^{28}y^{36} + 249331712x^{26}y^{38} + 125303432x^{24}y^{40} + 36995072x^{22}y^{42} + 9358864x^{20}y^{44} \\
& + 2711552x^{18}y^{46} + 245404x^{16}y^{48} + 90112x^{14}y^{50} + 4912x^{12}y^{52} + 312x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{28}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 312x^{56}y^8 + 9008x^{52}y^{12} + 57344x^{50}y^{14} + 401052x^{48}y^{16} + 2154496x^{46}y^{18} + 10591760x^{44}y^{20} \\
& + 36077568x^{42}y^{22} + 122976904x^{40}y^{24} + 255754240x^{38}y^{26} + 546963120x^{36}y^{28} + 712589312x^{34}y^{30} + 919817030x^{32}y^{32} \\
& + 712589312x^{30}y^{34} + 546963120x^{28}y^{36} + 255754240x^{26}y^{38} + 122976904x^{24}y^{40} + 36077568x^{22}y^{42} + 10591760x^{20}y^{44} \\
& + 2154496x^{18}y^{46} + 401052x^{16}y^{48} + 57344x^{14}y^{50} + 9008x^{12}y^{52} + 312x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{29}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 312x^{56}y^8 + 17200x^{52}y^{12} + 8192x^{50}y^{14} + 548508x^{48}y^{16} + 1712128x^{46}y^{18} + 11746832x^{44}y^{20} \\
& + 34832384x^{42}y^{22} + 121076360x^{40}y^{24} + 262635520x^{38}y^{26} + 541605552x^{36}y^{28} + 707444736x^{34}y^{30} + 931711814x^{32}y^{32} \\
& + 707444736x^{30}y^{34} + 541605552x^{28}y^{36} + 262635520x^{26}y^{38} + 121076360x^{24}y^{40} + 34832384x^{22}y^{42} \\
& + 11746832x^{20}y^{44} + 1712128x^{18}y^{46} + 548508x^{16}y^{48} + 8192x^{14}y^{50} + 17200x^{12}y^{52} + 312x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{30}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 312x^{56}y^8 + 17200x^{52}y^{12} + 24576x^{50}y^{14} + 384668x^{48}y^{16} + 2383872x^{46}y^{18} + 10436112x^{44}y^{20} \\
& + 35422208x^{42}y^{22} + 123828872x^{40}y^{24} + 256671744x^{38}y^{26} + 545013424x^{36}y^{28} + 712130560x^{34}y^{30} + 922340166x^{32}y^{32} \\
& + 712130560x^{30}y^{34} + 545013424x^{28}y^{36} + 256671744x^{26}y^{38} + 123828872x^{24}y^{40} + 35422208x^{22}y^{42} + 10436112x^{20}y^{44} \\
& + 2383872x^{18}y^{46} + 384668x^{16}y^{48} + 24576x^{14}y^{50} + 17200x^{12}y^{52} + 312x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{31}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 824x^{56}y^8 + 3712x^{54}y^{10} + 27440x^{52}y^{12} + 91904x^{50}y^{14} + 500380x^{48}y^{16} + 2322176x^{46}y^{18} \\
& + 10143248x^{44}y^{20} + 34581888x^{42}y^{22} + 122706056x^{40}y^{24} + 258831232x^{38}y^{26} + 550014640x^{36}y^{28} + 710801920x^{34}y^{30} \\
& + 914916166x^{32}y^{32} + 710801920x^{30}y^{34} + 550014640x^{28}y^{36} + 258831232x^{26}y^{38} + 122706056x^{24}y^{40} + 34581888x^{22}y^{42} \\
& + 10143248x^{20}y^{44} + 2322176x^{18}y^{46} + 500380x^{16}y^{48} + 91904x^{14}y^{50} + 27440x^{12}y^{52} + 3712x^{10}y^{54} + 824x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{32}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 9264x^{52}y^{12} + 45056x^{50}y^{14} + 348444x^{48}y^{16} + 2486272x^{46}y^{18} + 9976592x^{44}y^{20} \\
& + 37617664x^{42}y^{22} + 117765960x^{40}y^{24} + 268140544x^{38}y^{26} + 523854000x^{36}y^{28} + 748675072x^{34}y^{30} + 877129286x^{32}y^{32} \\
& + 748675072x^{30}y^{34} + 523854000x^{28}y^{36} + 268140544x^{26}y^{38} + 117765960x^{24}y^{40} + 37617664x^{22}y^{42} + 9976592x^{20}y^{44} \\
& + 2486272x^{18}y^{46} + 348444x^{16}y^{48} + 45056x^{14}y^{50} + 9264x^{12}y^{52} + 120x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{33}$$

- $$\begin{aligned}
& x^{64} + 80x^{60}y^4 + 128x^{58}y^6 + 2936x^{56}y^8 + 8320x^{54}y^{10} + 69872x^{52}y^{12} + 238848x^{50}y^{14} + 1190684x^{48}y^{16} + 3966208x^{46}y^{18} \\
& + 14283600x^{44}y^{20} + 40642432x^{42}y^{22} + 111586376x^{40}y^{24} + 248121216x^{38}y^{26} + 494713712x^{36}y^{28} + 763987456x^{34}y^{30} \\
& + 937343558x^{32}y^{32} + 763987456x^{30}y^{34} + 494713712x^{28}y^{36} + 248121216x^{26}y^{38} + 111586376x^{24}y^{40} + 40642432x^{22}y^{42} \\
& + 14283600x^{20}y^{44} + 3966208x^{18}y^{46} + 1190684x^{16}y^{48} + 238848x^{14}y^{50} + 69872x^{12}y^{52} + 8320x^{10}y^{54} + 2936x^8y^{56} \\
& + 128x^6y^{58} + 80x^4y^{60} + y^{64}
\end{aligned} \tag{34}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 1784x^{56}y^8 + 2176x^{54}y^{10} + 37424x^{52}y^{12} + 130304x^{50}y^{14} + 542236x^{48}y^{16} + 2145536x^{46}y^{18} \\
& + 8958224x^{44}y^{20} + 36908928x^{42}y^{22} + 120514760x^{40}y^{24} + 271423360x^{38}y^{26} + 518159536x^{36}y^{28} + 746354176x^{34}y^{30} \\
& + 884610118x^{32}y^{32} + 746354176x^{30}y^{34} + 518159536x^{28}y^{36} + 271423360x^{26}y^{38} + 120514760x^{24}y^{40} + 36908928x^{22}y^{42} \\
& + 8958224x^{20}y^{44} + 2145536x^{18}y^{46} + 542236x^{16}y^{48} + 130304x^{14}y^{50} + 37424x^{12}y^{52} + 2176x^{10}y^{54} + 1784x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{35}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 760x^{56}y^8 + 4224x^{54}y^{10} + 25136x^{52}y^{12} + 95488x^{50}y^{14} + 491036x^{48}y^{16} + 2331904x^{46}y^{18} \\
& + 9912592x^{44}y^{20} + 36427648x^{42}y^{22} + 116534472x^{40}y^{24} + 272066432x^{38}y^{26} + 526654640x^{36}y^{28} + 746038784x^{34}y^{30} \\
& + 873800774x^{32}y^{32} + 746038784x^{30}y^{34} + 526654640x^{28}y^{36} + 272066432x^{26}y^{38} + 116534472x^{24}y^{40} + 36427648x^{22}y^{42} \\
& + 9912592x^{20}y^{44} + 2331904x^{18}y^{46} + 491036x^{16}y^{48} + 95488x^{14}y^{50} + 25136x^{12}y^{52} + 4224x^{10}y^{54} + 760x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{36}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 760x^{56}y^8 + 2176x^{54}y^{10} + 18992x^{52}y^{12} + 113920x^{50}y^{14} + 618012x^{48}y^{16} \\
& + 1867008x^{46}y^{18} + 10422544x^{44}y^{20} + 36450176x^{42}y^{22} + 115436744x^{40}y^{24} + 274634624x^{38}y^{26} + 524577968x^{36}y^{28} \\
& + 743896576x^{34}y^{30} + 878888006x^{32}y^{32} + 743896576x^{30}y^{34} + 524577968x^{28}y^{36} + 274634624x^{26}y^{38} + 115436744x^{24}y^{40} \\
& + 36450176x^{22}y^{42} + 10422544x^{20}y^{44} + 1867008x^{18}y^{46} + 618012x^{16}y^{48} + 113920x^{14}y^{50} + 18992x^{12}y^{52} + 2176x^{10}y^{54} \\
& + 760x^8y^{56} + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{37}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 440x^{56}y^8 + 12592x^{52}y^{12} + 45056x^{50}y^{14} + 481180x^{48}y^{16} + 1847296x^{46}y^{18} + 11121680x^{44}y^{20} \\
& + 35700736x^{42}y^{22} + 122196488x^{40}y^{24} + 258850816x^{38}y^{26} + 543939248x^{36}y^{28} + 710189056x^{34}y^{30} + 926198086x^{32}y^{32} \\
& + 710189056x^{30}y^{34} + 543939248x^{28}y^{36} + 258850816x^{26}y^{38} + 122196488x^{24}y^{40} + 35700736x^{22}y^{42} + 11121680x^{20}y^{44} \\
& + 1847296x^{18}y^{46} + 481180x^{16}y^{48} + 45056x^{14}y^{50} + 12592x^{12}y^{52} + 440x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{38}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 184x^{56}y^8 + 5424x^{52}y^{12} + 69632x^{50}y^{14} + 320924x^{48}y^{16} + 2461696x^{46}y^{18} + 10061840x^{44}y^{20} \\
& + 36454400x^{42}y^{22} + 123757320x^{40}y^{24} + 252657664x^{38}y^{26} + 549986992x^{36}y^{28} + 714989568x^{34}y^{30} + 913435974x^{32}y^{32} \\
& + 714989568x^{30}y^{34} + 549986992x^{28}y^{36} + 252657664x^{26}y^{38} + 123757320x^{24}y^{40} + 36454400x^{22}y^{42} + 10061840x^{20}y^{44} \\
& + 2461696x^{18}y^{46} + 320924x^{16}y^{48} + 69632x^{14}y^{50} + 5424x^{12}y^{52} + 184x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{39}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 184x^{56}y^8 + 1024x^{54}y^{10} + 3376x^{52}y^{12} + 76800x^{50}y^{14} + 308636x^{48}y^{16} + 2382848x^{46}y^{18} + 10231824x^{44}y^{20} \\
& + 36705280x^{42}y^{22} + 123085576x^{40}y^{24} + 252291072x^{38}y^{26} + 551391920x^{36}y^{28} + 715175936x^{34}y^{30} + 911658310x^{32}y^{32} \\
& + 715175936x^{30}y^{34} + 551391920x^{28}y^{36} + 252291072x^{26}y^{38} + 123085576x^{24}y^{40} + 36705280x^{22}y^{42} + 10231824x^{20}y^{44} \\
& + 2382848x^{18}y^{46} + 308636x^{16}y^{48} + 76800x^{14}y^{50} + 3376x^{12}y^{52} + 1024x^{10}y^{54} + 184x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{40}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 184x^{56}y^8 + 7472x^{52}y^{12} + 45056x^{50}y^{14} + 480668x^{48}y^{16} + 1847296x^{46}y^{18} + 11333648x^{44}y^{20} \\
& + 35700736x^{42}y^{22} + 121217800x^{40}y^{24} + 258850816x^{38}y^{26} + 546091696x^{36}y^{28} + 710189056x^{34}y^{30} + 923438406x^{32}y^{32} \\
& + 710189056x^{30}y^{34} + 546091696x^{28}y^{36} + 258850816x^{26}y^{38} + 121217800x^{24}y^{40} + 35700736x^{22}y^{42} + 11333648x^{20}y^{44} \\
& + 1847296x^{18}y^{46} + 480668x^{16}y^{48} + 45056x^{14}y^{50} + 7472x^{12}y^{52} + 184x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{41}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 10288x^{52}y^{12} + 32768x^{50}y^{14} + 428316x^{48}y^{16} + 2179072x^{46}y^{18} + 10612496x^{44}y^{20} \\
& + 37240832x^{42}y^{22} + 116496200x^{40}y^{24} + 271237120x^{38}y^{26} + 521906352x^{36}y^{28} + 746274816x^{34}y^{30} + 882130502x^{32}y^{32} \\
& + 746274816x^{30}y^{34} + 521906352x^{28}y^{36} + 271237120x^{26}y^{38} + 116496200x^{24}y^{40} + 37240832x^{22}y^{42} + 10612496x^{20}y^{44} \\
& + 2179072x^{18}y^{46} + 428316x^{16}y^{48} + 32768x^{14}y^{50} + 10288x^{12}y^{52} + 120x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{42}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 11312x^{52}y^{12} + 32768x^{50}y^{14} + 385308x^{48}y^{16} + 2375680x^{46}y^{18} + 10265360x^{44}y^{20} \\
& + 37306368x^{42}y^{22} + 117290824x^{40}y^{24} + 269860864x^{38}y^{26} + 522514608x^{36}y^{28} + 747388928x^{34}y^{30} + 880102982x^{32}y^{32} \\
& + 747388928x^{30}y^{34} + 522514608x^{28}y^{36} + 269860864x^{26}y^{38} + 117290824x^{24}y^{40} + 37306368x^{22}y^{42} + 10265360x^{20}y^{44} \\
& + 2375680x^{18}y^{46} + 385308x^{16}y^{48} + 32768x^{14}y^{50} + 11312x^{12}y^{52} + 120x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{43}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 1024x^{54}y^{10} + 8240x^{52}y^{12} + 44032x^{50}y^{14} + 375068x^{48}y^{16} + 2268160x^{46}y^{18} + 10454800x^{44}y^{20} \\
& + 37639168x^{42}y^{22} + 116512584x^{40}y^{24} + 269379584x^{38}y^{26} + 524163248x^{36}y^{28} + 747632640x^{34}y^{30} + 878009926x^{32}y^{32} \\
& + 747632640x^{30}y^{34} + 524163248x^{28}y^{36} + 269379584x^{26}y^{38} + 116512584x^{24}y^{40} + 37639168x^{22}y^{42} + 10454800x^{20}y^{44} \\
& + 2268160x^{18}y^{46} + 375068x^{16}y^{48} + 44032x^{14}y^{50} + 8240x^{12}y^{52} + 1024x^{10}y^{54} + 120x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{44}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 512x^{54}y^{10} + 9264x^{52}y^{12} + 40448x^{50}y^{14} + 381212x^{48}y^{16} + 2307584x^{46}y^{18} + 10369808x^{44}y^{20} \\
& + 37513728x^{42}y^{22} + 116848456x^{40}y^{24} + 269562880x^{38}y^{26} + 523460784x^{36}y^{28} + 747539456x^{34}y^{30} + 878898758x^{32}y^{32} \\
& + 747539456x^{30}y^{34} + 523460784x^{28}y^{36} + 269562880x^{26}y^{38} + 116848456x^{24}y^{40} + 37513728x^{22}y^{42} + 10369808x^{20}y^{44} \\
& + 2307584x^{18}y^{46} + 381212x^{16}y^{48} + 40448x^{14}y^{50} + 9264x^{12}y^{52} + 512x^{10}y^{54} + 120x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{45}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 13360x^{52}y^{12} + 24576x^{50}y^{14} + 381212x^{48}y^{16} + 2433024x^{46}y^{18} + 10226448x^{44}y^{20} \\
& + 37142528x^{42}y^{22} + 117503816x^{40}y^{24} + 270090240x^{38}y^{26} + 522027184x^{36}y^{28} + 747274240x^{34}y^{30} + 880733766x^{32}y^{32} \\
& + 747274240x^{30}y^{34} + 522027184x^{28}y^{36} + 270090240x^{26}y^{38} + 117503816x^{24}y^{40} + 37142528x^{22}y^{42} + 10226448x^{20}y^{44} \\
& + 2433024x^{18}y^{46} + 381212x^{16}y^{48} + 24576x^{14}y^{50} + 13360x^{12}y^{52} + 120x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned}
\tag{46}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 376x^{56}y^8 + 512x^{54}y^{10} + 12336x^{52}y^{12} + 44544x^{50}y^{14} + 426780x^{48}y^{16} + 2082304x^{46}y^{18} + 10524432x^{44}y^{20} \\
& + 37530112x^{42}y^{22} + 116926024x^{40}y^{24} + 270824448x^{38}y^{26} + 520943792x^{36}y^{28} + 746482688x^{34}y^{30} + 883370566x^{32}y^{32} \\
& + 746482688x^{30}y^{34} + 520943792x^{28}y^{36} + 270824448x^{26}y^{38} + 116926024x^{24}y^{40} + 37530112x^{22}y^{42} + 10524432x^{20}y^{44} \\
& + 2082304x^{18}y^{46} + 426780x^{16}y^{48} + 44544x^{14}y^{50} + 12336x^{12}y^{52} + 512x^{10}y^{54} + 376x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned}
\tag{47}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 1016x^{56}y^8 + 3584x^{54}y^{10} + 22064x^{52}y^{12} + 53760x^{50}y^{14} + 385052x^{48}y^{16} + 1931776x^{46}y^{18} + 10446096x^{44}y^{20} \\
& + 38036992x^{42}y^{22} + 117677000x^{40}y^{24} + 270068736x^{38}y^{26} + 519046320x^{36}y^{28} + 746869760x^{34}y^{30} + 885882950x^{32}y^{32} \\
& + 746869760x^{30}y^{34} + 519046320x^{28}y^{36} + 270068736x^{26}y^{38} + 117677000x^{24}y^{40} + 38036992x^{22}y^{42} + 10446096x^{20}y^{44} \\
& + 1931776x^{18}y^{46} + 385052x^{16}y^{48} + 53760x^{14}y^{50} + 22064x^{12}y^{52} + 3584x^{10}y^{54} + 1016x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned}
\tag{48}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 1536x^{54}y^{10} + 8752x^{52}y^{12} + 55808x^{50}y^{14} + 330268x^{48}y^{16} + 2368000x^{46}y^{18} + 10125584x^{44}y^{20} \\
& + 37993984x^{42}y^{22} + 117247688x^{40}y^{24} + 267590656x^{38}y^{26} + 524885168x^{36}y^{28} + 748954624x^{34}y^{30} + 875842630x^{32}y^{32} \\
& + 748954624x^{30}y^{34} + 524885168x^{28}y^{36} + 267590656x^{26}y^{38} + 117247688x^{24}y^{40} + 37993984x^{22}y^{42} + 10125584x^{20}y^{44} \\
& + 2368000x^{18}y^{46} + 330268x^{16}y^{48} + 55808x^{14}y^{50} + 8752x^{12}y^{52} + 1536x^{10}y^{54} + 248x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned}
\tag{49}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 504x^{56}y^8 + 1536x^{54}y^{10} + 11824x^{52}y^{12} + 55808x^{50}y^{14} + 416796x^{48}y^{16} + 1974784x^{46}y^{18} + 10607888x^{44}y^{20} \\
& + 37862912x^{42}y^{22} + 116637128x^{40}y^{24} + 270343168x^{38}y^{26} + 521516208x^{36}y^{28} + 746726400x^{34}y^{30} + 882657350x^{32}y^{32} \\
& + 746726400x^{30}y^{34} + 521516208x^{28}y^{36} + 270343168x^{26}y^{38} + 116637128x^{24}y^{40} + 37862912x^{22}y^{42} + 10607888x^{20}y^{44} \\
& + 1974784x^{18}y^{46} + 416796x^{16}y^{48} + 55808x^{14}y^{50} + 11824x^{12}y^{52} + 1536x^{10}y^{54} + 504x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned}
\tag{50}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 512x^{54}y^{10} + 10800x^{52}y^{12} + 48640x^{50}y^{14} + 342556x^{48}y^{16} + 2446848x^{46}y^{18} + 9955600x^{44}y^{20} \\
& + 37743104x^{42}y^{22} + 117919432x^{40}y^{24} + 267957248x^{38}y^{26} + 523480240x^{36}y^{28} + 748768256x^{34}y^{30} + 877620294x^{32}y^{32} \\
& + 748768256x^{30}y^{34} + 523480240x^{28}y^{36} + 267957248x^{26}y^{38} + 117919432x^{24}y^{40} + 37743104x^{22}y^{42} + 9955600x^{20}y^{44} \\
& + 2446848x^{18}y^{46} + 342556x^{16}y^{48} + 48640x^{14}y^{50} + 10800x^{12}y^{52} + 512x^{10}y^{54} + 248x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned}
\tag{51}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 504x^{56}y^8 + 512x^{54}y^{10} + 11824x^{52}y^{12} + 60928x^{50}y^{14} + 392220x^{48}y^{16} + 2164224x^{46}y^{18} + 10149136x^{44}y^{20} \\
& + 37923328x^{42}y^{22} + 117784008x^{40}y^{24} + 268989440x^{38}y^{26} + 521450672x^{36}y^{28} + 747826176x^{34}y^{30} + 881461318x^{32}y^{32} \\
& + 747826176x^{30}y^{34} + 521450672x^{28}y^{36} + 268989440x^{26}y^{38} + 117784008x^{24}y^{40} + 37923328x^{22}y^{42} + 10149136x^{20}y^{44} \\
& + 2164224x^{18}y^{46} + 392220x^{16}y^{48} + 60928x^{14}y^{50} + 11824x^{12}y^{52} + 512x^{10}y^{54} + 504x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned}
\tag{52}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 512x^{54}y^{10} + 4656x^{52}y^{12} + 77312x^{50}y^{14} + 313884x^{48}y^{16} + 2442752x^{46}y^{18} + 9744656x^{44}y^{20} \\
& + 38382080x^{42}y^{22} + 117968584x^{40}y^{24} + 265778176x^{38}y^{26} + 525794480x^{36}y^{28} + 750283776x^{34}y^{30} + 873385030x^{32}y^{32} \\
& + 750283776x^{30}y^{34} + 525794480x^{28}y^{36} + 265778176x^{26}y^{38} + 117968584x^{24}y^{40} + 38382080x^{22}y^{42} + 9744656x^{20}y^{44} \\
& + 2442752x^{18}y^{46} + 313884x^{16}y^{48} + 77312x^{14}y^{50} + 4656x^{12}y^{52} + 512x^{10}y^{54} + 248x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned}
\tag{53}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 504x^{56}y^8 + 1536x^{54}y^{10} + 12848x^{52}y^{12} + 53760x^{50}y^{14} + 393756x^{48}y^{16} + 2095616x^{46}y^{18} + 10363152x^{44}y^{20} \\
& + 38141440x^{42}y^{22} + 116155848x^{40}y^{24} + 271948800x^{38}y^{26} + 517598384x^{36}y^{28} + 753112064x^{34}y^{30} + 875211846x^{32}y^{32} \\
& + 753112064x^{30}y^{34} + 517598384x^{28}y^{36} + 271948800x^{26}y^{38} + 116155848x^{24}y^{40} + 38141440x^{22}y^{42} + 10363152x^{20}y^{44} \\
& + 2095616x^{18}y^{46} + 393756x^{16}y^{48} + 53760x^{14}y^{50} + 12848x^{12}y^{52} + 1536x^{10}y^{54} + 504x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{54}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 10800x^{52}y^{12} + 47104x^{50}y^{14} + 370716x^{48}y^{16} + 2381824x^{46}y^{18} + 9992464x^{44}y^{20} \\
& + 37912576x^{42}y^{22} + 116872904x^{40}y^{24} + 271007744x^{38}y^{26} + 518495408x^{36}y^{28} + 754003968x^{34}y^{30} + 872775750x^{32}y^{32} \\
& + 754003968x^{30}y^{34} + 518495408x^{28}y^{36} + 271007744x^{26}y^{38} + 116872904x^{24}y^{40} + 37912576x^{22}y^{42} + 9992464x^{20}y^{44} \\
& + 2381824x^{18}y^{46} + 370716x^{16}y^{48} + 47104x^{14}y^{50} + 10800x^{12}y^{52} + 248x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{55}$$

- $$\begin{aligned}
& x^{64} + 80x^{60}y^4 + 128x^{58}y^6 + 2936x^{56}y^8 + 8320x^{54}y^{10} + 69872x^{52}y^{12} + 238848x^{50}y^{14} + 1190172x^{48}y^{16} + 3974400x^{46}y^{18} \\
& + 14222160x^{44}y^{20} + 40929152x^{42}y^{22} + 110654536x^{40}y^{24} + 250357632x^{38}y^{26} + 490613616x^{36}y^{28} + 769844736x^{34}y^{30} \\
& + 930754118x^{32}y^{32} + 769844736x^{30}y^{34} + 490613616x^{28}y^{36} + 250357632x^{26}y^{38} + 110654536x^{24}y^{40} + 40929152x^{22}y^{42} \\
& + 14222160x^{20}y^{44} + 3974400x^{18}y^{46} + 1190172x^{16}y^{48} + 238848x^{14}y^{50} + 69872x^{12}y^{52} + 8320x^{10}y^{54} + 2936x^8y^{56} \\
& + 128x^6y^{58} + 80x^4y^{60} + y^{64}
\end{aligned} \tag{56}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 512x^{54}y^{10} + 7728x^{52}y^{12} + 54784x^{50}y^{14} + 409628x^{48}y^{16} + 2117120x^{46}y^{18} + 10444048x^{44}y^{20} \\
& + 38054400x^{42}y^{22} + 115635912x^{40}y^{24} + 272086016x^{38}y^{26} + 518833328x^{36}y^{28} + 753040384x^{34}y^{30} + 873599046x^{32}y^{32} \\
& + 753040384x^{30}y^{34} + 518833328x^{28}y^{36} + 272086016x^{26}y^{38} + 115635912x^{24}y^{40} + 38054400x^{22}y^{42} + 10444048x^{20}y^{44} \\
& + 2117120x^{18}y^{46} + 409628x^{16}y^{48} + 54784x^{14}y^{50} + 7728x^{12}y^{52} + 512x^{10}y^{54} + 248x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{57}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 504x^{56}y^8 + 1024x^{54}y^{10} + 13872x^{52}y^{12} + 46080x^{50}y^{14} + 440860x^{48}y^{16} + 1967104x^{46}y^{18} + 10605840x^{44}y^{20} \\
& + 37868544x^{42}y^{22} + 115803592x^{40}y^{24} + 273623040x^{38}y^{26} + 516043952x^{36}y^{28} + 751847424x^{34}y^{30} + 878443590x^{32}y^{32} \\
& + 751847424x^{30}y^{34} + 516043952x^{28}y^{36} + 273623040x^{26}y^{38} + 115803592x^{24}y^{40} + 37868544x^{22}y^{42} + 10605840x^{20}y^{44} \\
& + 1967104x^{18}y^{46} + 440860x^{16}y^{48} + 46080x^{14}y^{50} + 13872x^{12}y^{52} + 1024x^{10}y^{54} + 504x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{58}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 1784x^{56}y^8 + 2176x^{54}y^{10} + 37424x^{52}y^{12} + 130304x^{50}y^{14} + 541724x^{48}y^{16} \\
& + 2153728x^{46}y^{18} + 8896784x^{44}y^{20} + 37195648x^{42}y^{22} + 119582920x^{40}y^{24} + 273659776x^{38}y^{26} + 514059440x^{36}y^{28} \\
& + 752211456x^{34}y^{30} + 878020678x^{32}y^{32} + 752211456x^{30}y^{34} + 514059440x^{28}y^{36} + 273659776x^{26}y^{38} + 119582920x^{24}y^{40} \\
& + 37195648x^{22}y^{42} + 8896784x^{20}y^{44} + 2153728x^{18}y^{46} + 541724x^{16}y^{48} + 130304x^{14}y^{50} + 37424x^{12}y^{52} + 2176x^{10}y^{54} \\
& + 1784x^8y^{56} + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{59}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 12848x^{52}y^{12} + 30720x^{50}y^{14} + 448540x^{48}y^{16} + 2103296x^{46}y^{18} + 10608912x^{44}y^{20} \\
& + 37453824x^{42}y^{22} + 115709640x^{40}y^{24} + 274219008x^{38}y^{26} + 516304048x^{36}y^{28} + 751546368x^{34}y^{30} + 878092358x^{32}y^{32} \\
& + 751546368x^{30}y^{34} + 516304048x^{28}y^{36} + 274219008x^{26}y^{38} + 115709640x^{24}y^{40} + 37453824x^{22}y^{42} + 10608912x^{20}y^{44} \\
& + 2103296x^{18}y^{46} + 448540x^{16}y^{48} + 30720x^{14}y^{50} + 12848x^{12}y^{52} + 248x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{60}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 12848x^{52}y^{12} + 34816x^{50}y^{14} + 407580x^{48}y^{16} + 2271232x^{46}y^{18} + 10281232x^{44}y^{20} \\
& + 37601280x^{42}y^{22} + 116397768x^{40}y^{24} + 272728064x^{38}y^{26} + 517156016x^{36}y^{28} + 752717824x^{34}y^{30} + 875749446x^{32}y^{32} \\
& + 752717824x^{30}y^{34} + 517156016x^{28}y^{36} + 272728064x^{26}y^{38} + 116397768x^{24}y^{40} + 37601280x^{22}y^{42} + 10281232x^{20}y^{44} \\
& + 2271232x^{18}y^{46} + 407580x^{16}y^{48} + 34816x^{14}y^{50} + 12848x^{12}y^{52} + 248x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{61}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 1016x^{56}y^8 + 512x^{54}y^{10} + 22064x^{52}y^{12} + 56832x^{50}y^{14} + 433692x^{48}y^{16} + 2004480x^{46}y^{18} + 9991440x^{44}y^{20} \\
& + 38062592x^{42}y^{22} + 118121416x^{40}y^{24} + 272716800x^{38}y^{26} + 512193712x^{36}y^{28} + 752512000x^{34}y^{30} + 882734150x^{32}y^{32} \\
& + 752512000x^{30}y^{34} + 512193712x^{28}y^{36} + 272716800x^{26}y^{38} + 118121416x^{24}y^{40} + 38062592x^{22}y^{42} + 9991440x^{20}y^{44} \\
& + 2004480x^{18}y^{46} + 433692x^{16}y^{48} + 56832x^{14}y^{50} + 22064x^{12}y^{52} + 512x^{10}y^{54} + 1016x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{62}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 12848x^{52}y^{12} + 38912x^{50}y^{14} + 366620x^{48}y^{16} + 2439168x^{46}y^{18} + 9953552x^{44}y^{20} \\
& + 37748736x^{42}y^{22} + 117085896x^{40}y^{24} + 271237120x^{38}y^{26} + 518007984x^{36}y^{28} + 753889280x^{34}y^{30} + 873406534x^{32}y^{32} \\
& + 753889280x^{30}y^{34} + 518007984x^{28}y^{36} + 271237120x^{26}y^{38} + 117085896x^{24}y^{40} + 37748736x^{22}y^{42} + 9953552x^{20}y^{44} \\
& + 2439168x^{18}y^{46} + 366620x^{16}y^{48} + 38912x^{14}y^{50} + 12848x^{12}y^{52} + 248x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{63}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 10800x^{52}y^{12} + 43008x^{50}y^{14} + 411676x^{48}y^{16} + 2213888x^{46}y^{18} + 10320144x^{44}y^{20} \\
& + 37765120x^{42}y^{22} + 116184776x^{40}y^{24} + 272498688x^{38}y^{26} + 517643440x^{36}y^{28} + 752832512x^{34}y^{30} + 875118662x^{32}y^{32} \\
& + 752832512x^{30}y^{34} + 517643440x^{28}y^{36} + 272498688x^{26}y^{38} + 116184776x^{24}y^{40} + 37765120x^{22}y^{42} + 10320144x^{20}y^{44} \\
& + 2213888x^{18}y^{46} + 411676x^{16}y^{48} + 43008x^{14}y^{50} + 10800x^{12}y^{52} + 248x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{64}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 504x^{56}y^8 + 512x^{54}y^{10} + 11824x^{52}y^{12} + 56832x^{50}y^{14} + 432668x^{48}y^{16} + 2004480x^{46}y^{18} + 10415376x^{44}y^{20} \\
& + 38062592x^{42}y^{22} + 116164040x^{40}y^{24} + 272716800x^{38}y^{26} + 516498608x^{36}y^{28} + 752512000x^{34}y^{30} + 877214790x^{32}y^{32} \\
& + 752512000x^{30}y^{34} + 516498608x^{28}y^{36} + 272716800x^{26}y^{38} + 116164040x^{24}y^{40} + 38062592x^{22}y^{42} + 10415376x^{20}y^{44} \\
& + 2004480x^{18}y^{46} + 432668x^{16}y^{48} + 56832x^{14}y^{50} + 11824x^{12}y^{52} + 512x^{10}y^{54} + 504x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{65}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 8752x^{52}y^{12} + 38912x^{50}y^{14} + 430876x^{48}y^{16} + 2144256x^{46}y^{18} + 10580240x^{44}y^{20} \\
& + 37650432x^{42}y^{22} + 115404616x^{40}y^{24} + 273301504x^{38}y^{26} + 518171824x^{36}y^{28} + 752218112x^{34}y^{30} + 875067974x^{32}y^{32} \\
& + 752218112x^{30}y^{34} + 518171824x^{28}y^{36} + 273301504x^{26}y^{38} + 115404616x^{24}y^{40} + 37650432x^{22}y^{42} + 10580240x^{20}y^{44} \\
& + 2144256x^{18}y^{46} + 430876x^{16}y^{48} + 38912x^{14}y^{50} + 8752x^{12}y^{52} + 120x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{66}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 9776x^{52}y^{12} + 38912x^{50}y^{14} + 387868x^{48}y^{16} + 2340864x^{46}y^{18} + 10233104x^{44}y^{20} \\
& + 37715968x^{42}y^{22} + 116199240x^{40}y^{24} + 271925248x^{38}y^{26} + 518780080x^{36}y^{28} + 753332224x^{34}y^{30} + 873040454x^{32}y^{32} \\
& + 753332224x^{30}y^{34} + 518780080x^{28}y^{36} + 271925248x^{26}y^{38} + 116199240x^{24}y^{40} + 37715968x^{22}y^{42} + 10233104x^{20}y^{44} \\
& + 2340864x^{18}y^{46} + 387868x^{16}y^{48} + 38912x^{14}y^{50} + 9776x^{12}y^{52} + 120x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{67}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 376x^{56}y^8 + 10800x^{52}y^{12} + 51200x^{50}y^{14} + 437532x^{48}y^{16} + 2058240x^{46}y^{18} + 10426640x^{44}y^{20} \\
& + 37896192x^{42}y^{22} + 116063816x^{40}y^{24} + 272957440x^{38}y^{26} + 516750512x^{36}y^{28} + 752390144x^{34}y^{30} + 876881478x^{32}y^{32} \\
& + 752390144x^{30}y^{34} + 516750512x^{28}y^{36} + 272957440x^{26}y^{38} + 116063816x^{24}y^{40} + 37896192x^{22}y^{42} + 10426640x^{20}y^{44} \\
& + 2058240x^{18}y^{46} + 437532x^{16}y^{48} + 51200x^{14}y^{50} + 10800x^{12}y^{52} + 376x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{68}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 8752x^{52}y^{12} + 43008x^{50}y^{14} + 389916x^{48}y^{16} + 2312192x^{46}y^{18} + 10252560x^{44}y^{20} \\
& + 37797888x^{42}y^{22} + 116092744x^{40}y^{24} + 271810560x^{38}y^{26} + 519023792x^{36}y^{28} + 753389568x^{34}y^{30} + 872725062x^{32}y^{32} \\
& + 753389568x^{30}y^{34} + 519023792x^{28}y^{36} + 271810560x^{26}y^{38} + 116092744x^{24}y^{40} + 37797888x^{22}y^{42} + 10252560x^{20}y^{44} \\
& + 2312192x^{18}y^{46} + 389916x^{16}y^{48} + 43008x^{14}y^{50} + 8752x^{12}y^{52} + 120x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{69}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 6704x^{52}y^{12} + 51200x^{50}y^{14} + 394012x^{48}y^{16} + 2254848x^{46}y^{18} + 10291472x^{44}y^{20} \\
& + 37961728x^{42}y^{22} + 115879752x^{40}y^{24} + 271581184x^{38}y^{26} + 519511216x^{36}y^{28} + 753504256x^{34}y^{30} + 872094278x^{32}y^{32} \\
& + 753504256x^{30}y^{34} + 519511216x^{28}y^{36} + 271581184x^{26}y^{38} + 115879752x^{24}y^{40} + 37961728x^{22}y^{42} + 10291472x^{20}y^{44} \\
& + 2254848x^{18}y^{46} + 394012x^{16}y^{48} + 51200x^{14}y^{50} + 6704x^{12}y^{52} + 120x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{70}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 5680x^{52}y^{12} + 51200x^{50}y^{14} + 437020x^{48}y^{16} + 2058240x^{46}y^{18} + 10638608x^{44}y^{20} \\
& + 37896192x^{42}y^{22} + 115085128x^{40}y^{24} + 272957440x^{38}y^{26} + 518902960x^{36}y^{28} + 752390144x^{34}y^{30} + 874121798x^{32}y^{32} \\
& + 752390144x^{30}y^{34} + 518902960x^{28}y^{36} + 272957440x^{26}y^{38} + 115085128x^{24}y^{40} + 37896192x^{22}y^{42} + 10638608x^{20}y^{44} \\
& + 2058240x^{18}y^{46} + 437020x^{16}y^{48} + 51200x^{14}y^{50} + 5680x^{12}y^{52} + 120x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{71}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 512x^{54}y^{10} + 8752x^{52}y^{12} + 42496x^{50}y^{14} + 381724x^{48}y^{16} + 2301440x^{46}y^{18} + 10318096x^{44}y^{20} \\
& + 37841408x^{42}y^{22} + 115863368x^{40}y^{24} + 271741952x^{38}y^{26} + 519482544x^{36}y^{28} + 753425408x^{34}y^{30} + 872151622x^{32}y^{32} + \\
& 753425408x^{30}y^{34} + 519482544x^{28}y^{36} + 271741952x^{26}y^{38} + 115863368x^{24}y^{40} + 37841408x^{22}y^{42} + 10318096x^{20}y^{44} \\
& + 2301440x^{18}y^{46} + 381724x^{16}y^{48} + 42496x^{14}y^{50} + 8752x^{12}y^{52} + 512x^{10}y^{54} + 120x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{72}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 376x^{56}y^8 + 512x^{54}y^{10} + 10800x^{52}y^{12} + 50688x^{50}y^{14} + 429340x^{48}y^{16} + 2047488x^{46}y^{18} + 10492176x^{44}y^{20} \\
& + 37939712x^{42}y^{22} + 115834440x^{40}y^{24} + 272888832x^{38}y^{26} + 517209264x^{36}y^{28} + 752425984x^{34}y^{30} + 876308038x^{32}y^{32} \\
& + 752425984x^{30}y^{34} + 517209264x^{28}y^{36} + 272888832x^{26}y^{38} + 115834440x^{24}y^{40} + 37939712x^{22}y^{42} + 10492176x^{20}y^{44} \\
& + 2047488x^{18}y^{46} + 429340x^{16}y^{48} + 50688x^{14}y^{50} + 10800x^{12}y^{52} + 512x^{10}y^{54} + 376x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{73}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 504x^{56}y^8 + 12848x^{52}y^{12} + 57344x^{50}y^{14} + 397852x^{48}y^{16} + 2211840x^{46}y^{18} + 10002704x^{44}y^{20} \\
& + 38084608x^{42}y^{22} + 117188040x^{40}y^{24} + 271409152x^{38}y^{26} + 516648112x^{36}y^{28} + 753590272x^{34}y^{30} + 875760710x^{32}y^{32} \\
& + 753590272x^{30}y^{34} + 516648112x^{28}y^{36} + 271409152x^{26}y^{38} + 117188040x^{24}y^{40} + 38084608x^{22}y^{42} + 10002704x^{20}y^{44} \\
& + 2211840x^{18}y^{46} + 397852x^{16}y^{48} + 57344x^{14}y^{50} + 12848x^{12}y^{52} + 504x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{74}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 504x^{56}y^8 + 14896x^{52}y^{12} + 40960x^{50}y^{14} + 475676x^{48}y^{16} + 1933312x^{46}y^{18} + 10619152x^{44}y^{20} \\
& + 37625856x^{42}y^{22} + 116024776x^{40}y^{24} + 274620416x^{38}y^{26} + 514456752x^{36}y^{28} + 751132672x^{34}y^{30} + 881077318x^{32}y^{32} \\
& + 751132672x^{30}y^{34} + 514456752x^{28}y^{36} + 274620416x^{26}y^{38} + 116024776x^{24}y^{40} + 37625856x^{22}y^{42} + 10619152x^{20}y^{44} \\
& + 1933312x^{18}y^{46} + 475676x^{16}y^{48} + 40960x^{14}y^{50} + 14896x^{12}y^{52} + 504x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{75}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 512x^{54}y^{10} + 6704x^{52}y^{12} + 44544x^{50}y^{14} + 447260x^{48}y^{16} + 1992192x^{46}y^{18} + 10848528x^{44}y^{20} \\
& + 37784064x^{42}y^{22} + 114618184x^{40}y^{24} + 273748992x^{38}y^{26} + 518692016x^{36}y^{28} + 751782912x^{34}y^{30} + 875035206x^{32}y^{32} \\
& + 751782912x^{30}y^{34} + 518692016x^{28}y^{36} + 273748992x^{26}y^{38} + 114618184x^{24}y^{40} + 37784064x^{22}y^{42} + 10848528x^{20}y^{44} \\
& + 1992192x^{18}y^{46} + 447260x^{16}y^{48} + 44544x^{14}y^{50} + 6704x^{12}y^{52} + 512x^{10}y^{54} + 120x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{76}$$

- $x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 512x^{54}y^{10} + 7728x^{52}y^{12} + 44544x^{50}y^{14} + 404252x^{48}y^{16} + 2188800x^{46}y^{18} + 10501392x^{44}y^{20}$
 $+ 37849600x^{42}y^{22} + 115412808x^{40}y^{24} + 272372736x^{38}y^{26} + 519300272x^{36}y^{28} + 752897024x^{34}y^{30} + 873007686x^{32}y^{32}$
 $+ 752897024x^{30}y^{34} + 519300272x^{28}y^{36} + 272372736x^{26}y^{38} + 115412808x^{24}y^{40} + 37849600x^{22}y^{42} + 10501392x^{20}y^{44}$
 $+ 2188800x^{18}y^{46} + 404252x^{16}y^{48} + 44544x^{14}y^{50} + 7728x^{12}y^{52} + 512x^{10}y^{54} + 120x^8y^{56} + 16x^4y^{60} + y^{64}$ (77)

- $x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 512x^{54}y^{10} + 7728x^{52}y^{12} + 40448x^{50}y^{14} + 445212x^{48}y^{16} + 2020864x^{46}y^{18} + 10829072x^{44}y^{20}$
 $+ 37702144x^{42}y^{22} + 114724680x^{40}y^{24} + 273863680x^{38}y^{26} + 518448304x^{36}y^{28} + 751725568x^{34}y^{30} + 875350598x^{32}y^{32}$
 $+ 751725568x^{30}y^{34} + 518448304x^{28}y^{36} + 273863680x^{26}y^{38} + 114724680x^{24}y^{40} + 37702144x^{22}y^{42} + 10829072x^{20}y^{44}$
 $+ 2020864x^{18}y^{46} + 445212x^{16}y^{48} + 40448x^{14}y^{50} + 7728x^{12}y^{52} + 512x^{10}y^{54} + 120x^8y^{56} + 16x^4y^{60} + y^{64}$ (78)

- $x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 512x^{54}y^{10} + 10800x^{52}y^{12} + 32256x^{50}y^{14} + 398108x^{48}y^{16} + 2274816x^{46}y^{18} + 10443024x^{44}y^{20}$
 $+ 37603840x^{42}y^{22} + 115732296x^{40}y^{24} + 272716800x^{38}y^{26} + 518569136x^{36}y^{28} + 752724992x^{34}y^{30} + 873953862x^{32}y^{32}$
 $+ 752724992x^{30}y^{34} + 518569136x^{28}y^{36} + 272716800x^{26}y^{38} + 115732296x^{24}y^{40} + 37603840x^{22}y^{42} + 10443024x^{20}y^{44}$
 $+ 2274816x^{18}y^{46} + 398108x^{16}y^{48} + 32256x^{14}y^{50} + 10800x^{12}y^{52} + 512x^{10}y^{54} + 120x^8y^{56} + 16x^4y^{60} + y^{64}$ (79)

- $x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 512x^{54}y^{10} + 9776x^{52}y^{12} + 32256x^{50}y^{14} + 441116x^{48}y^{16} + 2078208x^{46}y^{18} + 10790160x^{44}y^{20}$
 $+ 37538304x^{42}y^{22} + 114937672x^{40}y^{24} + 274093056x^{38}y^{26} + 517960880x^{36}y^{28} + 751610880x^{34}y^{30} + 875981382x^{32}y^{32}$
 $+ 751610880x^{30}y^{34} + 517960880x^{28}y^{36} + 274093056x^{26}y^{38} + 114937672x^{24}y^{40} + 37538304x^{22}y^{42} + 10790160x^{20}y^{44}$
 $+ 2078208x^{18}y^{46} + 441116x^{16}y^{48} + 32256x^{14}y^{50} + 9776x^{12}y^{52} + 512x^{10}y^{54} + 120x^8y^{56} + 16x^4y^{60} + y^{64}$ (80)

- $x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 1024x^{54}y^{10} + 8752x^{52}y^{12} + 39936x^{50}y^{14} + 394012x^{48}y^{16} + 2206720x^{46}y^{18} + 10547472x^{44}y^{20}$
 $+ 37811200x^{42}y^{22} + 115289928x^{40}y^{24} + 272418816x^{38}y^{26} + 519515312x^{36}y^{28} + 752875520x^{34}y^{30} + 872749638x^{32}y^{32}$
 $+ 752875520x^{30}y^{34} + 519515312x^{28}y^{36} + 272418816x^{26}y^{38} + 115289928x^{24}y^{40} + 37811200x^{22}y^{42} + 10547472x^{20}y^{44}$
 $+ 2206720x^{18}y^{46} + 394012x^{16}y^{48} + 39936x^{14}y^{50} + 8752x^{12}y^{52} + 1024x^{10}y^{54} + 120x^8y^{56} + 16x^4y^{60} + y^{64}$ (81)

- $x^{64} + 16x^{60}y^4 + 632x^{56}y^8 + 1024x^{54}y^{10} + 15920x^{52}y^{12} + 48128x^{50}y^{14} + 442140x^{48}y^{16} + 1952768x^{46}y^{18} + 10509584x^{44}y^{20}$
 $+ 37909504x^{42}y^{22} + 116239688x^{40}y^{24} + 273565696x^{38}y^{26} + 515089584x^{36}y^{28} + 751876096x^{34}y^{30} + 879665734x^{32}y^{32}$
 $+ 751876096x^{30}y^{34} + 515089584x^{28}y^{36} + 273565696x^{26}y^{38} + 116239688x^{24}y^{40} + 37909504x^{22}y^{42} + 10509584x^{20}y^{44}$
 $+ 1952768x^{18}y^{46} + 442140x^{16}y^{48} + 48128x^{14}y^{50} + 15920x^{12}y^{52} + 1024x^{10}y^{54} + 632x^8y^{56} + 16x^4y^{60} + y^{64}$ (82)

- $x^{64} + 112x^{60}y^4 + 9080x^{56}y^8 + 226128x^{52}y^{12} + 2729244x^{48}y^{16} + 27921264x^{44}y^{20} + 235367496x^{40}y^{24} + 905068752x^{36}y^{28}$
 $+ 1952323142x^{32}y^{32} + 905068752x^{28}y^{36} + 235367496x^{24}y^{40} + 27921264x^{20}y^{44} + 2729244x^{16}y^{48} + 226128x^{12}y^{52}$
 $+ 9080x^8y^{56} + 112x^4y^{60} + y^{64}$ (83)

- $x^{64} + 112x^{60}y^4 + 9080x^{56}y^8 + 226128x^{52}y^{12} + 2663708x^{48}y^{16} + 1048576x^{46}y^{18} + 20056944x^{44}y^{20} + 36700160x^{42}y^{22}$
 $+ 116091976x^{40}y^{24} + 286261248x^{38}y^{26} + 380256464x^{36}y^{28} + 749731840x^{34}y^{30} + 1108874822x^{32}y^{32}$
 $+ 749731840x^{30}y^{34} + 380256464x^{28}y^{36} + 286261248x^{26}y^{38} + 116091976x^{24}y^{40} + 36700160x^{22}y^{42} + 20056944x^{20}y^{44}$
 $+ 1048576x^{18}y^{46} + 2663708x^{16}y^{48} + 226128x^{12}y^{52} + 9080x^8y^{56} + 112x^4y^{60} + y^{64}$ (84)

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 2808x^{56}y^8 + 76944x^{52}y^{12} + 1427484x^{48}y^{16} + 23306544x^{44}y^{20} + 230112456x^{40}y^{24} + 992408080x^{36}y^{28} \\
& + 1800298566x^{32}y^{32} + 992408080x^{28}y^{36} + 230112456x^{24}y^{40} + 23306544x^{20}y^{44} + 1427484x^{16}y^{48} + 76944x^{12}y^{52} \\
& + 2808x^8y^{56} + 48x^4y^{60} + y^{64}
\end{aligned} \tag{85}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 2552x^{56}y^8 + 71824x^{52}y^{12} + 1426972x^{48}y^{16} + 23518512x^{44}y^{20} + 229133768x^{40}y^{24} + 994560528x^{36}y^{28} \\
& + 1797538886x^{32}y^{32} + 994560528x^{28}y^{36} + 229133768x^{24}y^{40} + 23518512x^{20}y^{44} + 1426972x^{16}y^{48} + 71824x^{12}y^{52} \\
& + 2552x^8y^{56} + 48x^4y^{60} + y^{64}
\end{aligned} \tag{86}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 2552x^{56}y^8 + 71824x^{52}y^{12} + 1361436x^{48}y^{16} + 1048576x^{46}y^{18} + 15654192x^{44}y^{20} + 36700160x^{42}y^{22} \\
& + 109858248x^{40}y^{24} + 286261248x^{38}y^{26} + 469748240x^{36}y^{28} + 749731840x^{34}y^{30} + 954090566x^{32}y^{32} + 749731840x^{30}y^{34} \\
& + 469748240x^{28}y^{36} + 286261248x^{26}y^{38} + 109858248x^{24}y^{40} + 36700160x^{22}y^{42} + 15654192x^{20}y^{44} + 1048576x^{18}y^{46} \\
& + 1361436x^{16}y^{48} + 71824x^{12}y^{52} + 2552x^8y^{56} + 48x^4y^{60} + y^{64}
\end{aligned} \tag{87}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 1784x^{56}y^8 + 40080x^{52}y^{12} + 131072x^{50}y^{14} + 737308x^{48}y^{16} + 3276800x^{46}y^{18} + 11358512x^{44}y^{20} \\
& + 40370176x^{42}y^{22} + 116228296x^{40}y^{24} + 260571136x^{38}y^{26} + 493736464x^{36}y^{28} + 769392640x^{34}y^{30} + 903278662x^{32}y^{32} \\
& + 769392640x^{30}y^{34} + 493736464x^{28}y^{36} + 260571136x^{26}y^{38} + 116228296x^{24}y^{40} + 40370176x^{22}y^{42} + 11358512x^{20}y^{44} \\
& + 3276800x^{18}y^{46} + 737308x^{16}y^{48} + 131072x^{14}y^{50} + 40080x^{12}y^{52} + 1784x^8y^{56} + 48x^4y^{60} + y^{64}
\end{aligned} \tag{88}$$

- $$\begin{aligned}
& x^{64} + 48x^{60}y^4 + 1016x^{56}y^8 + 24720x^{52}y^{12} + 131072x^{50}y^{14} + 735772x^{48}y^{16} + 3276800x^{46}y^{18} + 11994416x^{44}y^{20} \\
& + 40370176x^{42}y^{22} + 113292232x^{40}y^{24} + 260571136x^{38}y^{26} + 500193808x^{36}y^{28} + 769392640x^{34}y^{30} + 894999622x^{32}y^{32} \\
& + 769392640x^{30}y^{34} + 500193808x^{28}y^{36} + 260571136x^{26}y^{38} + 113292232x^{24}y^{40} + 40370176x^{22}y^{42} + 11994416x^{20}y^{44} \\
& + 3276800x^{18}y^{46} + 735772x^{16}y^{48} + 131072x^{14}y^{50} + 24720x^{12}y^{52} + 1016x^8y^{56} + 48x^4y^{60} + y^{64}
\end{aligned} \tag{89}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 1464x^{56}y^8 + 38192x^{52}y^{12} + 747420x^{48}y^{16} + 524288x^{46}y^{18} + 15583248x^{44}y^{20} \\
& + 18350080x^{42}y^{22} + 174697992x^{40}y^{24} + 143130624x^{38}y^{26} + 758604464x^{36}y^{28} + 374865920x^{34}y^{30} + 1321879878x^{32}y^{32} \\
& + 374865920x^{30}y^{34} + 758604464x^{28}y^{36} + 143130624x^{26}y^{38} + 174697992x^{24}y^{40} + 18350080x^{22}y^{42} + 15583248x^{20}y^{44} \\
& + 524288x^{18}y^{46} + 747420x^{16}y^{48} + 38192x^{12}y^{52} + 1464x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{90}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 1464x^{56}y^8 + 38192x^{52}y^{12} + 681884x^{48}y^{16} + 1572864x^{46}y^{18} + 7718928x^{44}y^{20} + 55050240x^{42}y^{22} \\
& + 55422472x^{40}y^{24} + 429391872x^{38}y^{26} + 233792176x^{36}y^{28} + 1124597760x^{34}y^{30} + 478431558x^{32}y^{32} \\
& + 1124597760x^{30}y^{34} + 233792176x^{28}y^{36} + 429391872x^{26}y^{38} + 55422472x^{24}y^{40} + 55050240x^{22}y^{42} + 7718928x^{20}y^{44} \\
& + 1572864x^{18}y^{46} + 681884x^{16}y^{48} + 38192x^{12}y^{52} + 1464x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{91}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 952x^{56}y^8 + 2048x^{54}y^{10} + 19760x^{52}y^{12} + 63488x^{50}y^{14} + 402332x^{48}y^{16} + 1595392x^{46}y^{18} \\
& + 13803536x^{44}y^{20} + 20359168x^{42}y^{22} + 176476168x^{40}y^{24} + 130011136x^{38}y^{26} + 773509808x^{36}y^{28} + 384839680x^{34}y^{30} \\
& + 1292800326x^{32}y^{32} + 384839680x^{30}y^{34} + 773509808x^{28}y^{36} + 130011136x^{26}y^{38} + 176476168x^{24}y^{40} + 20359168x^{22}y^{42} \\
& + 13803536x^{20}y^{44} + 1595392x^{18}y^{46} + 402332x^{16}y^{48} + 63488x^{14}y^{50} + 19760x^{12}y^{52} + 2048x^{10}y^{54} + 952x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{92}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 952x^{56}y^8 + 2048x^{54}y^{10} + 19760x^{52}y^{12} + 63488x^{50}y^{14} + 336796x^{48}y^{16} + 2643968x^{46}y^{18} \\
& + 5939216x^{44}y^{20} + 57059328x^{42}y^{22} + 57200648x^{40}y^{24} + 416272384x^{38}y^{26} + 248697520x^{36}y^{28} + 1134571520x^{34}y^{30} \\
& + 449352006x^{32}y^{32} + 1134571520x^{30}y^{34} + 248697520x^{28}y^{36} + 416272384x^{26}y^{38} + 57200648x^{24}y^{40} + 57059328x^{22}y^{42} \\
& + 5939216x^{20}y^{44} + 2643968x^{18}y^{46} + 336796x^{16}y^{48} + 63488x^{14}y^{50} + 19760x^{12}y^{52} + 2048x^{10}y^{54} + 952x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{93}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 696x^{56}y^8 + 4736x^{54}y^{10} + 22832x^{52}y^{12} + 99072x^{50}y^{14} + 516508x^{48}y^{16} + 1784576x^{46}y^{18} \\
& + 13859856x^{44}y^{20} + 18776448x^{42}y^{22} + 173728008x^{40}y^{24} + 133225344x^{38}y^{26} + 782101168x^{36}y^{28} + 382980608x^{34}y^{30} \\
& + 1280767302x^{32}y^{32} + 382980608x^{30}y^{34} + 782101168x^{28}y^{36} + 133225344x^{26}y^{38} + 173728008x^{24}y^{40} + 18776448x^{22}y^{42} \\
& + 13859856x^{20}y^{44} + 1784576x^{18}y^{46} + 516508x^{16}y^{48} + 99072x^{14}y^{50} + 22832x^{12}y^{52} + 4736x^{10}y^{54} + 696x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{94}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 696x^{56}y^8 + 4736x^{54}y^{10} + 22832x^{52}y^{12} + 99072x^{50}y^{14} + 450972x^{48}y^{16} + 2833152x^{46}y^{18} \\
& + 5995536x^{44}y^{20} + 55476608x^{42}y^{22} + 54452488x^{40}y^{24} + 419486592x^{38}y^{26} + 257288880x^{36}y^{28} + 1132712448x^{34}y^{30} \\
& + 437318982x^{32}y^{32} + 1132712448x^{30}y^{34} + 257288880x^{28}y^{36} + 419486592x^{26}y^{38} + 54452488x^{24}y^{40} + 55476608x^{22}y^{42} \\
& + 5995536x^{20}y^{44} + 2833152x^{18}y^{46} + 450972x^{16}y^{48} + 99072x^{14}y^{50} + 22832x^{12}y^{52} + 4736x^{10}y^{54} + 696x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{95}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 696x^{56}y^8 + 14640x^{52}y^{12} + 65536x^{50}y^{14} + 434588x^{48}y^{16} + 1638400x^{46}y^{18} + 13753360x^{44}y^{20} \\
& + 20185088x^{42}y^{22} + 176414984x^{40}y^{24} + 130285568x^{38}y^{26} + 773827248x^{36}y^{28} + 384696320x^{34}y^{30} + 1292334406x^{32}y^{32} \\
& + 384696320x^{30}y^{34} + 773827248x^{28}y^{36} + 130285568x^{26}y^{38} + 176414984x^{24}y^{40} + 20185088x^{22}y^{42} + 13753360x^{20}y^{44} \\
& + 1638400x^{18}y^{46} + 434588x^{16}y^{48} + 65536x^{14}y^{50} + 14640x^{12}y^{52} + 696x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{96}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 696x^{56}y^8 + 14640x^{52}y^{12} + 65536x^{50}y^{14} + 369052x^{48}y^{16} + 2686976x^{46}y^{18} + 5889040x^{44}y^{20} \\
& + 56885248x^{42}y^{22} + 57139464x^{40}y^{24} + 416546816x^{38}y^{26} + 249014960x^{36}y^{28} + 1134428160x^{34}y^{30} + 448886086x^{32}y^{32} \\
& + 1134428160x^{30}y^{34} + 249014960x^{28}y^{36} + 416546816x^{26}y^{38} + 57139464x^{24}y^{40} + 56885248x^{22}y^{42} + 5889040x^{20}y^{44} \\
& + 2686976x^{18}y^{46} + 369052x^{16}y^{48} + 65536x^{14}y^{50} + 14640x^{12}y^{52} + 696x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{97}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 568x^{56}y^8 + 2048x^{54}y^{10} + 10032x^{52}y^{12} + 71680x^{50}y^{14} + 405660x^{48}y^{16} + 1538048x^{46}y^{18} + 14160400x^{44}y^{20} \\
& + 20523008x^{42}y^{22} + 174795144x^{40}y^{24} + 129781760x^{38}y^{26} + 777225904x^{36}y^{28} + 384954368x^{34}y^{30} + 1288030022x^{32}y^{32} \\
& + 384954368x^{30}y^{34} + 777225904x^{28}y^{36} + 129781760x^{26}y^{38} + 174795144x^{24}y^{40} + 20523008x^{22}y^{42} + 14160400x^{20}y^{44} \\
& + 1538048x^{18}y^{46} + 405660x^{16}y^{48} + 71680x^{14}y^{50} + 10032x^{12}y^{52} + 2048x^{10}y^{54} + 568x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{98}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 568x^{56}y^8 + 2048x^{54}y^{10} + 10032x^{52}y^{12} + 71680x^{50}y^{14} + 340124x^{48}y^{16} + 2586624x^{46}y^{18} + 6296080x^{44}y^{20} \\
& + 57223168x^{42}y^{22} + 55519624x^{40}y^{24} + 416043008x^{38}y^{26} + 252413616x^{36}y^{28} + 1134686208x^{34}y^{30} + 444581702x^{32}y^{32} \\
& + 1134686208x^{30}y^{34} + 252413616x^{28}y^{36} + 416043008x^{26}y^{38} + 55519624x^{24}y^{40} + 57223168x^{22}y^{42} + 6296080x^{20}y^{44} \\
& + 2586624x^{18}y^{46} + 340124x^{16}y^{48} + 71680x^{14}y^{50} + 10032x^{12}y^{52} + 2048x^{10}y^{54} + 568x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{99}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 568x^{56}y^8 + 14128x^{52}y^{12} + 57344x^{50}y^{14} + 430236x^{48}y^{16} + 1695744x^{46}y^{18} + 13820432x^{44}y^{20} \\
& + 20021248x^{42}y^{22} + 176138632x^{40}y^{24} + 130514944x^{38}y^{26} + 774416048x^{36}y^{28} + 384581632x^{34}y^{30} + 1291585350x^{32}y^{32} \\
& + 384581632x^{30}y^{34} + 774416048x^{28}y^{36} + 130514944x^{26}y^{38} + 176138632x^{24}y^{40} + 20021248x^{22}y^{42} + 13820432x^{20}y^{44} \\
& + 1695744x^{18}y^{46} + 430236x^{16}y^{48} + 57344x^{14}y^{50} + 14128x^{12}y^{52} + 568x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{100}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 568x^{56}y^8 + 14128x^{52}y^{12} + 57344x^{50}y^{14} + 364700x^{48}y^{16} + 2744320x^{46}y^{18} + 5956112x^{44}y^{20} \\
& + 56721408x^{42}y^{22} + 56863112x^{40}y^{24} + 416776192x^{38}y^{26} + 249603760x^{36}y^{28} + 1134313472x^{34}y^{30} + 448137030x^{32}y^{32} \\
& + 1134313472x^{30}y^{34} + 249603760x^{28}y^{36} + 416776192x^{26}y^{38} + 56863112x^{24}y^{40} + 56721408x^{22}y^{42} + 5956112x^{20}y^{44} \\
& + 2744320x^{18}y^{46} + 364700x^{16}y^{48} + 57344x^{14}y^{50} + 14128x^{12}y^{52} + 568x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{101}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 1080x^{56}y^8 + 24368x^{52}y^{12} + 49152x^{50}y^{14} + 488604x^{48}y^{16} + 1753088x^{46}y^{18} + 11102736x^{44}y^{20} \\
& + 33488896x^{42}y^{22} + 131991432x^{40}y^{24} + 240844800x^{38}y^{26} + 571602608x^{36}y^{28} + 663388160x^{34}y^{30} + 985497414x^{32}y^{32} \\
& + 663388160x^{30}y^{34} + 571602608x^{28}y^{36} + 240844800x^{26}y^{38} + 131991432x^{24}y^{40} + 33488896x^{22}y^{42} + 11102736x^{20}y^{44} \\
& + 1753088x^{18}y^{46} + 488604x^{16}y^{48} + 49152x^{14}y^{50} + 24368x^{12}y^{52} + 1080x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{102}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 568x^{56}y^8 + 14128x^{52}y^{12} + 49152x^{50}y^{14} + 487580x^{48}y^{16} + 1753088x^{46}y^{18} + 11526672x^{44}y^{20} \\
& + 33488896x^{42}y^{22} + 130034056x^{40}y^{24} + 240844800x^{38}y^{26} + 575907504x^{36}y^{28} + 663388160x^{34}y^{30} + 979978054x^{32}y^{32} \\
& + 663388160x^{30}y^{34} + 575907504x^{28}y^{36} + 240844800x^{26}y^{38} + 130034056x^{24}y^{40} + 33488896x^{22}y^{42} + 11526672x^{20}y^{44} \\
& + 1753088x^{18}y^{46} + 487580x^{16}y^{48} + 49152x^{14}y^{50} + 14128x^{12}y^{52} + 568x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{103}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 568x^{56}y^8 + 18224x^{52}y^{12} + 32768x^{50}y^{14} + 479388x^{48}y^{16} + 1867776x^{46}y^{18} + 11448848x^{44}y^{20} \\
& + 33161216x^{42}y^{22} + 130460040x^{40}y^{24} + 241303552x^{38}y^{26} + 574932656x^{36}y^{28} + 663158784x^{34}y^{30} + 981239622x^{32}y^{32} \\
& + 663158784x^{30}y^{34} + 574932656x^{28}y^{36} + 241303552x^{26}y^{38} + 130460040x^{24}y^{40} + 33161216x^{22}y^{42} + 11448848x^{20}y^{44} \\
& + 1867776x^{18}y^{46} + 479388x^{16}y^{48} + 32768x^{14}y^{50} + 18224x^{12}y^{52} + 568x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{104}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 568x^{56}y^8 + 1024x^{54}y^{10} + 18224x^{52}y^{12} + 31744x^{50}y^{14} + 463004x^{48}y^{16} + 1846272x^{46}y^{18} + 11579920x^{44}y^{20} \\
& + 33248256x^{42}y^{22} + 130001288x^{40}y^{24} + 241166336x^{38}y^{26} + 575850160x^{36}y^{28} + 663230464x^{34}y^{30} + 980092742x^{32}y^{32} \\
& + 663230464x^{30}y^{34} + 575850160x^{28}y^{36} + 241166336x^{26}y^{38} + 130001288x^{24}y^{40} + 33248256x^{22}y^{42} + 11579920x^{20}y^{44} \\
& + 1846272x^{18}y^{46} + 463004x^{16}y^{48} + 31744x^{14}y^{50} + 18224x^{12}y^{52} + 1024x^{10}y^{54} + 568x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{105}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 568x^{56}y^8 + 1024x^{54}y^{10} + 14128x^{52}y^{12} + 48128x^{50}y^{14} + 471196x^{48}y^{16} + 1731584x^{46}y^{18} + 11657744x^{44}y^{20} \\
& + 33575936x^{42}y^{22} + 129575304x^{40}y^{24} + 240707584x^{38}y^{26} + 576825008x^{36}y^{28} + 663459840x^{34}y^{30} + 978831174x^{32}y^{32} \\
& + 663459840x^{30}y^{34} + 576825008x^{28}y^{36} + 240707584x^{26}y^{38} + 129575304x^{24}y^{40} + 33575936x^{22}y^{42} + 11657744x^{20}y^{44} \\
& + 1731584x^{18}y^{46} + 471196x^{16}y^{48} + 48128x^{14}y^{50} + 14128x^{12}y^{52} + 1024x^{10}y^{54} + 568x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{106}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 312x^{56}y^8 + 1024x^{54}y^{10} + 9008x^{52}y^{12} + 48128x^{50}y^{14} + 470684x^{48}y^{16} + 1731584x^{46}y^{18} + 11869712x^{44}y^{20} \\
& + 33575936x^{42}y^{22} + 128596616x^{40}y^{24} + 240707584x^{38}y^{26} + 578977456x^{36}y^{28} + 663459840x^{34}y^{30} + 976071494x^{32}y^{32} \\
& + 663459840x^{30}y^{34} + 578977456x^{28}y^{36} + 240707584x^{26}y^{38} + 128596616x^{24}y^{40} + 33575936x^{22}y^{42} + 11869712x^{20}y^{44} \\
& + 1731584x^{18}y^{46} + 470684x^{16}y^{48} + 48128x^{14}y^{50} + 9008x^{12}y^{52} + 1024x^{10}y^{54} + 312x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{107}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 312x^{56}y^8 + 1024x^{54}y^{10} + 13104x^{52}y^{12} + 31744x^{50}y^{14} + 462492x^{48}y^{16} + 1846272x^{46}y^{18} + 11791888x^{44}y^{20} \\
& + 33248256x^{42}y^{22} + 129022600x^{40}y^{24} + 241166336x^{38}y^{26} + 578002608x^{36}y^{28} + 663230464x^{34}y^{30} + 977333062x^{32}y^{32} \\
& + 663230464x^{30}y^{34} + 578002608x^{28}y^{36} + 241166336x^{26}y^{38} + 129022600x^{24}y^{40} + 33248256x^{22}y^{42} + 11791888x^{20}y^{44} \\
& + 1846272x^{18}y^{46} + 462492x^{16}y^{48} + 31744x^{14}y^{50} + 13104x^{12}y^{52} + 1024x^{10}y^{54} + 312x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{108}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 1848x^{56}y^8 + 1664x^{54}y^{10} + 39728x^{52}y^{12} + 126720x^{50}y^{14} + 555676x^{48}y^{16} + 2070272x^{46}y^{18} \\
& + 9680400x^{44}y^{20} + 32769408x^{42}y^{22} + 134141064x^{40}y^{24} + 240296832x^{38}y^{26} + 574320304x^{36}y^{28} + 664259072x^{34}y^{30} \\
& + 978441030x^{32}y^{32} + 664259072x^{30}y^{34} + 574320304x^{28}y^{36} + 240296832x^{26}y^{38} + 134141064x^{24}y^{40} + 32769408x^{22}y^{42} \\
& + 9680400x^{20}y^{44} + 2070272x^{18}y^{46} + 555676x^{16}y^{48} + 126720x^{14}y^{50} + 39728x^{12}y^{52} + 1664x^{10}y^{54} + 1848x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{109}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 824x^{56}y^8 + 1664x^{54}y^{10} + 19248x^{52}y^{12} + 126720x^{50}y^{14} + 553628x^{48}y^{16} + 2070272x^{46}y^{18} \\
& + 10528272x^{44}y^{20} + 32769408x^{42}y^{22} + 130226312x^{40}y^{24} + 240296832x^{38}y^{26} + 582930096x^{36}y^{28} + 664259072x^{34}y^{30} \\
& + 967402310x^{32}y^{32} + 664259072x^{30}y^{34} + 582930096x^{28}y^{36} + 240296832x^{26}y^{38} + 130226312x^{24}y^{40} + 32769408x^{22}y^{42} \\
& + 10528272x^{20}y^{44} + 2070272x^{18}y^{46} + 553628x^{16}y^{48} + 126720x^{14}y^{50} + 19248x^{12}y^{52} + 1664x^{10}y^{54} + 824x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{110}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 312x^{56}y^8 + 1664x^{54}y^{10} + 33584x^{52}y^{12} + 28416x^{50}y^{14} + 503452x^{48}y^{16} + 2758400x^{46}y^{18} \\
& + 10485264x^{44}y^{20} + 30803328x^{42}y^{22} + 130824840x^{40}y^{24} + 243049344x^{38}y^{26} + 581385904x^{36}y^{28} + 662882816x^{34}y^{30} \\
& + 969452358x^{32}y^{32} + 662882816x^{30}y^{34} + 581385904x^{28}y^{36} + 243049344x^{26}y^{38} + 130824840x^{24}y^{40} + 30803328x^{22}y^{42} \\
& + 10485264x^{20}y^{44} + 2758400x^{18}y^{46} + 503452x^{16}y^{48} + 28416x^{14}y^{50} + 33584x^{12}y^{52} + 1664x^{10}y^{54} + 312x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{111}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 312x^{56}y^8 + 1664x^{54}y^{10} + 17200x^{52}y^{12} + 93952x^{50}y^{14} + 536220x^{48}y^{16} + 2299648x^{46}y^{18} \\
& + 10796560x^{44}y^{20} + 32114048x^{42}y^{22} + 129120904x^{40}y^{24} + 241214336x^{38}y^{26} + 585285296x^{36}y^{28} + 663800320x^{34}y^{30} \\
& + 964406086x^{32}y^{32} + 663800320x^{30}y^{34} + 585285296x^{28}y^{36} + 241214336x^{26}y^{38} + 129120904x^{24}y^{40} + 32114048x^{22}y^{42} \\
& + 10796560x^{20}y^{44} + 2299648x^{18}y^{46} + 536220x^{16}y^{48} + 93952x^{14}y^{50} + 17200x^{12}y^{52} + 1664x^{10}y^{54} + 312x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{112}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 312x^{56}y^8 + 1024x^{54}y^{10} + 13104x^{52}y^{12} + 39936x^{50}y^{14} + 380572x^{48}y^{16} + 2182144x^{46}y^{18} \\
& + 11136528x^{44}y^{20} + 33543168x^{42}y^{22} + 130398856x^{40}y^{24} + 238184448x^{38}y^{26} + 579706544x^{36}y^{28} + 665573376x^{34}y^{30} \\
& + 972647238x^{32}y^{32} + 665573376x^{30}y^{34} + 579706544x^{28}y^{36} + 238184448x^{26}y^{38} + 130398856x^{24}y^{40} + 33543168x^{22}y^{42} \\
& + 11136528x^{20}y^{44} + 2182144x^{18}y^{46} + 380572x^{16}y^{48} + 39936x^{14}y^{50} + 13104x^{12}y^{52} + 1024x^{10}y^{54} + 312x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{113}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 184x^{56}y^8 + 4400x^{52}y^{12} + 65536x^{50}y^{14} + 408988x^{48}y^{16} + 2031616x^{46}y^{18} + 11228176x^{44}y^{20} \\
& + 33947648x^{42}y^{22} + 129729288x^{40}y^{24} + 237633536x^{38}y^{26} + 581327536x^{36}y^{28} + 665845760x^{34}y^{30} + 970521926x^{32}y^{32} \\
& + 665845760x^{30}y^{34} + 581327536x^{28}y^{36} + 237633536x^{26}y^{38} + 129729288x^{24}y^{40} + 33947648x^{22}y^{42} + 11228176x^{20}y^{44} \\
& + 2031616x^{18}y^{46} + 408988x^{16}y^{48} + 65536x^{14}y^{50} + 4400x^{12}y^{52} + 184x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{114}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 184x^{56}y^8 + 8496x^{52}y^{12} + 49152x^{50}y^{14} + 400796x^{48}y^{16} + 2146304x^{46}y^{18} + 11150352x^{44}y^{20} \\
& + 33619968x^{42}y^{22} + 130155272x^{40}y^{24} + 238092288x^{38}y^{26} + 580352688x^{36}y^{28} + 665616384x^{34}y^{30} + 971783494x^{32}y^{32} \\
& + 665616384x^{30}y^{34} + 580352688x^{28}y^{36} + 238092288x^{26}y^{38} + 130155272x^{24}y^{40} + 33619968x^{22}y^{42} + 11150352x^{20}y^{44} \\
& + 2146304x^{18}y^{46} + 400796x^{16}y^{48} + 49152x^{14}y^{50} + 8496x^{12}y^{52} + 184x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{115}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 504x^{56}y^8 + 12848x^{52}y^{12} + 61440x^{50}y^{14} + 358428x^{48}y^{16} + 2355200x^{46}y^{18} + 9859344x^{44}y^{20} \\
& + 37371904x^{42}y^{22} + 120671688x^{40}y^{24} + 263208960x^{38}y^{26} + 529800368x^{36}y^{28} + 737189888x^{34}y^{30} + 893186118x^{32}y^{32} \\
& + 737189888x^{30}y^{34} + 529800368x^{28}y^{36} + 263208960x^{26}y^{38} + 120671688x^{24}y^{40} + 37371904x^{22}y^{42} + 9859344x^{20}y^{44} \\
& + 2355200x^{18}y^{46} + 358428x^{16}y^{48} + 61440x^{14}y^{50} + 12848x^{12}y^{52} + 504x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{116}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 504x^{56}y^8 + 14896x^{52}y^{12} + 45056x^{50}y^{14} + 436252x^{48}y^{16} + 2076672x^{46}y^{18} + 10475792x^{44}y^{20} \\
& + 36913152x^{42}y^{22} + 119508424x^{40}y^{24} + 266420224x^{38}y^{26} + 527609008x^{36}y^{28} + 734732288x^{34}y^{30} + 898502726x^{32}y^{32} \\
& + 734732288x^{30}y^{34} + 527609008x^{28}y^{36} + 266420224x^{26}y^{38} + 119508424x^{24}y^{40} + 36913152x^{22}y^{42} + 10475792x^{20}y^{44} \\
& + 2076672x^{18}y^{46} + 436252x^{16}y^{48} + 45056x^{14}y^{50} + 14896x^{12}y^{52} + 504x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{117}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 1016x^{56}y^8 + 512x^{54}y^{10} + 22064x^{52}y^{12} + 56832x^{50}y^{14} + 435228x^{48}y^{16} + 1979904x^{46}y^{18} \\
& + 10175760x^{44}y^{20} + 37202432x^{42}y^{22} + 120916936x^{40}y^{24} + 266007552x^{38}y^{26} + 524494000x^{36}y^{28} + 734940160x^{34}y^{30} \\
& + 902502470x^{32}y^{32} + 734940160x^{30}y^{34} + 524494000x^{28}y^{36} + 266007552x^{26}y^{38} + 120916936x^{24}y^{40} + 37202432x^{22}y^{42} \\
& + 10175760x^{20}y^{44} + 1979904x^{18}y^{46} + 435228x^{16}y^{48} + 56832x^{14}y^{50} + 22064x^{12}y^{52} + 512x^{10}y^{54} + 1016x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{118}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 504x^{56}y^8 + 512x^{54}y^{10} + 9776x^{52}y^{12} + 73216x^{50}y^{14} + 356380x^{48}y^{16} + 2258432x^{46}y^{18} \\
& + 9983248x^{44}y^{20} + 37661184x^{42}y^{22} + 120122824x^{40}y^{24} + 262796288x^{38}y^{26} + 530990256x^{36}y^{28} + 737397760x^{34}y^{30} \\
& + 891666502x^{32}y^{32} + 737397760x^{30}y^{34} + 530990256x^{28}y^{36} + 262796288x^{26}y^{38} + 120122824x^{24}y^{40} + 37661184x^{22}y^{42} \\
& + 9983248x^{20}y^{44} + 2258432x^{18}y^{46} + 356380x^{16}y^{48} + 73216x^{14}y^{50} + 9776x^{12}y^{52} + 512x^{10}y^{54} + 504x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{119}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 6704x^{52}y^{12} + 65536x^{50}y^{14} + 359964x^{48}y^{16} + 2326528x^{46}y^{18} + 10090768x^{44}y^{20} \\
& + 37453824x^{42}y^{22} + 119586504x^{40}y^{24} + 263094272x^{38}y^{26} + 532196528x^{36}y^{28} + 737247232x^{34}y^{30} + 890111046x^{32}y^{32} \\
& + 737247232x^{30}y^{34} + 532196528x^{28}y^{36} + 263094272x^{26}y^{38} + 119586504x^{24}y^{40} + 37453824x^{22}y^{42} + 10090768x^{20}y^{44} \\
& + 2326528x^{18}y^{46} + 359964x^{16}y^{48} + 65536x^{14}y^{50} + 6704x^{12}y^{52} + 248x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{120}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 8752x^{52}y^{12} + 49152x^{50}y^{14} + 437788x^{48}y^{16} + 2048000x^{46}y^{18} + 10707216x^{44}y^{20} \\
& + 36995072x^{42}y^{22} + 118423240x^{40}y^{24} + 266305536x^{38}y^{26} + 530005168x^{36}y^{28} + 734789632x^{34}y^{30} + 895427654x^{32}y^{32} \\
& + 734789632x^{30}y^{34} + 530005168x^{28}y^{36} + 266305536x^{26}y^{38} + 118423240x^{24}y^{40} + 36995072x^{22}y^{42} + 10707216x^{20}y^{44} \\
& + 2048000x^{18}y^{46} + 437788x^{16}y^{48} + 49152x^{14}y^{50} + 8752x^{12}y^{52} + 248x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{121}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 512x^{54}y^{10} + 13872x^{52}y^{12} + 28160x^{50}y^{14} + 419356x^{48}y^{16} + 2180608x^{46}y^{18} + 10675472x^{44}y^{20} \\
& + 36628992x^{42}y^{22} + 118726344x^{40}y^{24} + 266810368x^{38}y^{26} + 529245360x^{36}y^{28} + 734538752x^{34}y^{30} + 896431174x^{32}y^{32} \\
& + 734538752x^{30}y^{34} + 529245360x^{28}y^{36} + 266810368x^{26}y^{38} + 118726344x^{24}y^{40} + 36628992x^{22}y^{42} + 10675472x^{20}y^{44} \\
& + 2180608x^{18}y^{46} + 419356x^{16}y^{48} + 28160x^{14}y^{50} + 13872x^{12}y^{52} + 512x^{10}y^{54} + 248x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{122}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 2560x^{54}y^{10} + 7728x^{52}y^{12} + 58880x^{50}y^{14} + 316956x^{48}y^{16} + 2301440x^{46}y^{18} + 10398992x^{44}y^{20} \\
& + 37589504x^{42}y^{22} + 118546120x^{40}y^{24} + 262865920x^{38}y^{26} + 534246576x^{36}y^{28} + 737369088x^{34}y^{30} + 887559238x^{32}y^{32} \\
& + 737369088x^{30}y^{34} + 534246576x^{28}y^{36} + 262865920x^{26}y^{38} + 118546120x^{24}y^{40} + 37589504x^{22}y^{42} + 10398992x^{20}y^{44} \\
& + 2301440x^{18}y^{46} + 316956x^{16}y^{48} + 58880x^{14}y^{50} + 7728x^{12}y^{52} + 2560x^{10}y^{54} + 248x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{123}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 696x^{56}y^8 + 22832x^{52}y^{12} + 16384x^{50}y^{14} + 565660x^{48}y^{16} + 1458176x^{46}y^{18} + 12942352x^{44}y^{20} \\
& + 28114944x^{42}y^{22} + 144695560x^{40}y^{24} + 208732160x^{38}y^{26} + 637266608x^{36}y^{28} + 566984704x^{34}y^{30} + 1093367110x^{32}y^{32} \\
& + 566984704x^{30}y^{34} + 637266608x^{28}y^{36} + 208732160x^{26}y^{38} + 144695560x^{24}y^{40} + 28114944x^{22}y^{42} + 12942352x^{20}y^{44} \\
& + 1458176x^{18}y^{46} + 565660x^{16}y^{48} + 16384x^{14}y^{50} + 22832x^{12}y^{52} + 696x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{124}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 696x^{56}y^8 + 18736x^{52}y^{12} + 32768x^{50}y^{14} + 573852x^{48}y^{16} + 1343488x^{46}y^{18} + 13020176x^{44}y^{20} \\
& + 28442624x^{42}y^{22} + 144269576x^{40}y^{24} + 208273408x^{38}y^{26} + 638241456x^{36}y^{28} + 567214080x^{34}y^{30} + 1092105542x^{32}y^{32} \\
& + 567214080x^{30}y^{34} + 638241456x^{28}y^{36} + 208273408x^{26}y^{38} + 144269576x^{24}y^{40} + 28442624x^{22}y^{42} + 13020176x^{20}y^{44} \\
& + 1343488x^{18}y^{46} + 573852x^{16}y^{48} + 32768x^{14}y^{50} + 18736x^{12}y^{52} + 696x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{125}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 1208x^{56}y^8 + 2048x^{54}y^{10} + 28976x^{52}y^{12} + 30720x^{50}y^{14} + 542108x^{48}y^{16} + 1300480x^{46}y^{18} + 12858384x^{44}y^{20} \\
& + 28616704x^{42}y^{22} + 145309448x^{40}y^{24} + 207998976x^{38}y^{26} + 635771568x^{36}y^{28} + 567357440x^{34}y^{30} + 1095331142x^{32}y^{32} \\
& + 567357440x^{30}y^{34} + 635771568x^{28}y^{36} + 207998976x^{26}y^{38} + 145309448x^{24}y^{40} + 28616704x^{22}y^{42} + 12858384x^{20}y^{44} \\
& + 1300480x^{18}y^{46} + 542108x^{16}y^{48} + 30720x^{14}y^{50} + 28976x^{12}y^{52} + 2048x^{10}y^{54} + 1208x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{126}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 696x^{56}y^8 + 2048x^{54}y^{10} + 10544x^{52}y^{12} + 96256x^{50}y^{14} + 229788x^{48}y^{16} + 2414592x^{46}y^{18} + 10816528x^{44}y^{20} \\
& + 30451712x^{42}y^{22} + 148005128x^{40}y^{24} + 195153920x^{38}y^{26} + 648841904x^{36}y^{28} + 577187840x^{34}y^{30} + 1068545350x^{32}y^{32} \\
& + 577187840x^{30}y^{34} + 648841904x^{28}y^{36} + 195153920x^{26}y^{38} + 148005128x^{24}y^{40} + 30451712x^{22}y^{42} + 10816528x^{20}y^{44} \\
& + 2414592x^{18}y^{46} + 229788x^{16}y^{48} + 96256x^{14}y^{50} + 10544x^{12}y^{52} + 2048x^{10}y^{54} + 696x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{127}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 696x^{56}y^8 + 6144x^{54}y^{10} + 10544x^{52}y^{12} + 92160x^{50}y^{14} + 164252x^{48}y^{16} + 2328576x^{46}y^{18} \\
& + 11340816x^{44}y^{20} + 30799872x^{42}y^{22} + 146170120x^{40}y^{24} + 194605056x^{38}y^{26} + 652511920x^{36}y^{28} + 577474560x^{34}y^{30} \\
& + 1063957830x^{32}y^{32} + 577474560x^{30}y^{34} + 652511920x^{28}y^{36} + 194605056x^{26}y^{38} + 146170120x^{24}y^{40} + 30799872x^{22}y^{42} \\
& + 11340816x^{20}y^{44} + 2328576x^{18}y^{46} + 164252x^{16}y^{48} + 92160x^{14}y^{50} + 10544x^{12}y^{52} + 6144x^{10}y^{54} \\
& + 696x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{128}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 696x^{56}y^8 + 2048x^{54}y^{10} + 18736x^{52}y^{12} + 30720x^{50}y^{14} + 541084x^{48}y^{16} + 1300480x^{46}y^{18} + 13282320x^{44}y^{20} \\
& + 28616704x^{42}y^{22} + 143352072x^{40}y^{24} + 207998976x^{38}y^{26} + 640076464x^{36}y^{28} + 567357440x^{34}y^{30} + 1089811782x^{32}y^{32} \\
& + 567357440x^{30}y^{34} + 640076464x^{28}y^{36} + 207998976x^{26}y^{38} + 143352072x^{24}y^{40} + 28616704x^{22}y^{42} + 13282320x^{20}y^{44} \\
& + 1300480x^{18}y^{46} + 541084x^{16}y^{48} + 30720x^{14}y^{50} + 18736x^{12}y^{52} + 2048x^{10}y^{54} + 696x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{129}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 952x^{56}y^8 + 2688x^{54}y^{10} + 32048x^{52}y^{12} + 84736x^{50}y^{14} + 525212x^{48}y^{16} + 2204416x^{46}y^{18} \\
& + 11341840x^{44}y^{20} + 27449728x^{42}y^{22} + 146231304x^{40}y^{24} + 205523840x^{38}y^{26} + 645935792x^{36}y^{28} + 570040832x^{34}y^{30} \\
& + 1076220230x^{32}y^{32} + 570040832x^{30}y^{34} + 645935792x^{28}y^{36} + 205523840x^{26}y^{38} + 146231304x^{24}y^{40} + 27449728x^{22}y^{42} \\
& + 11341840x^{20}y^{44} + 2204416x^{18}y^{46} + 525212x^{16}y^{48} + 84736x^{14}y^{50} + 32048x^{12}y^{52} + 2688x^{10}y^{54} + 952x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{130}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 440x^{56}y^8 + 2688x^{54}y^{10} + 13616x^{52}y^{12} + 117504x^{50}y^{14} + 540572x^{48}y^{16} + 1975040x^{46}y^{18} \\
& + 11921424x^{44}y^{20} + 28105088x^{42}y^{22} + 143421960x^{40}y^{24} + 204606336x^{38}y^{26} + 652190384x^{36}y^{28} + 570499584x^{34}y^{30} \\
& + 1068177734x^{32}y^{32} + 570499584x^{30}y^{34} + 652190384x^{28}y^{36} + 204606336x^{26}y^{38} + 143421960x^{24}y^{40} + 28105088x^{22}y^{42} \\
& + 11921424x^{20}y^{44} + 1975040x^{18}y^{46} + 540572x^{16}y^{48} + 117504x^{14}y^{50} + 13616x^{12}y^{52} + 2688x^{10}y^{54} + 440x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{131}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 440x^{56}y^8 + 6784x^{54}y^{10} + 13616x^{52}y^{12} + 113408x^{50}y^{14} + 475036x^{48}y^{16} + 1889024x^{46}y^{18} \\
& + 12445712x^{44}y^{20} + 28453248x^{42}y^{22} + 141586952x^{40}y^{24} + 204057472x^{38}y^{26} + 655860400x^{36}y^{28} + 570786304x^{34}y^{30} \\
& + 1063590214x^{32}y^{32} + 570786304x^{30}y^{34} + 655860400x^{28}y^{36} + 204057472x^{26}y^{38} + 141586952x^{24}y^{40} + 28453248x^{22}y^{42} \\
& + 12445712x^{20}y^{44} + 1889024x^{18}y^{46} + 475036x^{16}y^{48} + 113408x^{14}y^{50} + 13616x^{12}y^{52} + 6784x^{10}y^{54} + 440x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{132}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 440x^{56}y^8 + 2688x^{54}y^{10} + 21808x^{52}y^{12} + 84736x^{50}y^{14} + 524188x^{48}y^{16} + 2204416x^{46}y^{18} \\
& + 11765776x^{44}y^{20} + 27449728x^{42}y^{22} + 144273928x^{40}y^{24} + 205523840x^{38}y^{26} + 650240688x^{36}y^{28} + 570040832x^{34}y^{30} \\
& + 1070700870x^{32}y^{32} + 570040832x^{30}y^{34} + 650240688x^{28}y^{36} + 205523840x^{26}y^{38} + 144273928x^{24}y^{40} + 27449728x^{22}y^{42} \\
& + 11765776x^{20}y^{44} + 2204416x^{18}y^{46} + 524188x^{16}y^{48} + 84736x^{14}y^{50} + 21808x^{12}y^{52} + 2688x^{10}y^{54} + 440x^8y^{56} \\
& + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{133}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 440x^{56}y^8 + 9520x^{52}y^{12} + 65536x^{50}y^{14} + 417692x^{48}y^{16} + 1900544x^{46}y^{18} + 11999248x^{44}y^{20} \\
& + 29360128x^{42}y^{22} + 145617416x^{40}y^{24} + 201850880x^{38}y^{26} + 644776624x^{36}y^{28} + 572129280x^{34}y^{30} + 1078712646x^{32}y^{32} \\
& + 572129280x^{30}y^{34} + 644776624x^{28}y^{36} + 201850880x^{26}y^{38} + 145617416x^{24}y^{40} + 29360128x^{22}y^{42} + 11999248x^{20}y^{44} \\
& + 1900544x^{18}y^{46} + 417692x^{16}y^{48} + 65536x^{14}y^{50} + 9520x^{12}y^{52} + 440x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{134}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 312x^{56}y^8 + 1536x^{54}y^{10} + 5936x^{52}y^{12} + 68096x^{50}y^{14} + 394908x^{48}y^{16} + 1839616x^{46}y^{18} + 12321296x^{44}y^{20} \\
& + 29572608x^{42}y^{22} + 144333448x^{40}y^{24} + 201530368x^{38}y^{26} + 647472816x^{36}y^{28} + 572294144x^{34}y^{30} + 1075297094x^{32}y^{32} \\
& + 572294144x^{30}y^{34} + 647472816x^{28}y^{36} + 201530368x^{26}y^{38} + 144333448x^{24}y^{40} + 29572608x^{22}y^{42} + 12321296x^{20}y^{44} \\
& + 1839616x^{18}y^{46} + 394908x^{16}y^{48} + 68096x^{14}y^{50} + 5936x^{12}y^{52} + 1536x^{10}y^{54} + 312x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{135}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 312x^{56}y^8 + 1024x^{54}y^{10} + 9008x^{52}y^{12} + 56320x^{50}y^{14} + 396956x^{48}y^{16} + 1936384x^{46}y^{18} + 12197392x^{44}y^{20} \\
& + 29283328x^{42}y^{22} + 144882312x^{40}y^{24} + 201943040x^{38}y^{26} + 646282928x^{36}y^{28} + 572086272x^{34}y^{30} + 1076816710x^{32}y^{32} \\
& + 572086272x^{30}y^{34} + 646282928x^{28}y^{36} + 201943040x^{26}y^{38} + 144882312x^{24}y^{40} + 29283328x^{22}y^{42} + 12197392x^{20}y^{44} \\
& + 1936384x^{18}y^{46} + 396956x^{16}y^{48} + 56320x^{14}y^{50} + 9008x^{12}y^{52} + 1024x^{10}y^{54} + 312x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{136}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 312x^{56}y^8 + 11056x^{52}y^{12} + 49152x^{50}y^{14} + 409244x^{48}y^{16} + 2015232x^{46}y^{18} + 12027408x^{44}y^{20} \\
& + 29032448x^{42}y^{22} + 145554056x^{40}y^{24} + 202309632x^{38}y^{26} + 644878000x^{36}y^{28} + 571899904x^{34}y^{30} + 1078594374x^{32}y^{32} \\
& + 571899904x^{30}y^{34} + 644878000x^{28}y^{36} + 202309632x^{26}y^{38} + 145554056x^{24}y^{40} + 29032448x^{22}y^{42} + 12027408x^{20}y^{44} \\
& + 2015232x^{18}y^{46} + 409244x^{16}y^{48} + 49152x^{14}y^{50} + 11056x^{12}y^{52} + 312x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{137}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 312x^{56}y^8 + 512x^{54}y^{10} + 7984x^{52}y^{12} + 60928x^{50}y^{14} + 407196x^{48}y^{16} + 1918464x^{46}y^{18} \\
& + 12151312x^{44}y^{20} + 29321728x^{42}y^{22} + 145005192x^{40}y^{24} + 201896960x^{38}y^{26} + 646067888x^{36}y^{28} + 572107776x^{34}y^{30} \\
& + 1077074758x^{32}y^{32} + 572107776x^{30}y^{34} + 646067888x^{28}y^{36} + 201896960x^{26}y^{38} + 145005192x^{24}y^{40} + 29321728x^{22}y^{42} \\
& + 12151312x^{20}y^{44} + 1918464x^{18}y^{46} + 407196x^{16}y^{48} + 60928x^{14}y^{50} + 7984x^{12}y^{52} + 512x^{10}y^{54} + 312x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{138}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 568x^{56}y^8 + 14128x^{52}y^{12} + 49152x^{50}y^{14} + 483484x^{48}y^{16} + 1818624x^{46}y^{18} + 11035152x^{44}y^{20} \\
& + 35782656x^{42}y^{22} + 122579336x^{40}y^{24} + 258736128x^{38}y^{26} + 543106736x^{36}y^{28} + 710246400x^{34}y^{30} + 927262534x^{32}y^{32} \\
& + 710246400x^{30}y^{34} + 543106736x^{28}y^{36} + 258736128x^{26}y^{38} + 122579336x^{24}y^{40} + 35782656x^{22}y^{42} + 11035152x^{20}y^{44} \\
& + 1818624x^{18}y^{46} + 483484x^{16}y^{48} + 49152x^{14}y^{50} + 14128x^{12}y^{52} + 568x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{139}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 312x^{56}y^8 + 11056x^{52}y^{12} + 40960x^{50}y^{14} + 478876x^{48}y^{16} + 1875968x^{46}y^{18} + 11208208x^{44}y^{20} \\
& + 35618816x^{42}y^{22} + 121813640x^{40}y^{24} + 258965504x^{38}y^{26} + 544771760x^{36}y^{28} + 710131712x^{34}y^{30} + 925133638x^{32}y^{32} \\
& + 710131712x^{30}y^{34} + 544771760x^{28}y^{36} + 258965504x^{26}y^{38} + 121813640x^{24}y^{40} + 35618816x^{22}y^{42} + 11208208x^{20}y^{44} \\
& + 1875968x^{18}y^{46} + 478876x^{16}y^{48} + 40960x^{14}y^{50} + 11056x^{12}y^{52} + 312x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{140}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 312x^{56}y^8 + 512x^{54}y^{10} + 12080x^{52}y^{12} + 44544x^{50}y^{14} + 386716x^{48}y^{16} + 2229760x^{46}y^{18} \\
& + 10598928x^{44}y^{20} + 35875328x^{42}y^{22} + 123067016x^{40}y^{24} + 256029696x^{38}y^{26} + 546690736x^{36}y^{28} + 712453120x^{34}y^{30} \\
& + 920189766x^{32}y^{32} + 712453120x^{30}y^{34} + 546690736x^{28}y^{36} + 256029696x^{26}y^{38} + 123067016x^{24}y^{40} + 35875328x^{22}y^{42} \\
& + 10598928x^{20}y^{44} + 2229760x^{18}y^{46} + 386716x^{16}y^{48} + 44544x^{14}y^{50} + 12080x^{12}y^{52} + 512x^{10}y^{54} + 312x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{141}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 312x^{56}y^8 + 1024x^{54}y^{10} + 11056x^{52}y^{12} + 39936x^{50}y^{14} + 462492x^{48}y^{16} + 1854464x^{46}y^{18} \\
& + 11339280x^{44}y^{20} + 35705856x^{42}y^{22} + 121354888x^{40}y^{24} + 258828288x^{38}y^{26} + 545689264x^{36}y^{28} + 710203392x^{34}y^{30} \\
& + 923986758x^{32}y^{32} + 710203392x^{30}y^{34} + 545689264x^{28}y^{36} + 258828288x^{26}y^{38} + 121354888x^{24}y^{40} + 35705856x^{22}y^{42} \\
& + 11339280x^{20}y^{44} + 1854464x^{18}y^{46} + 462492x^{16}y^{48} + 39936x^{14}y^{50} + 11056x^{12}y^{52} + 1024x^{10}y^{54} + 312x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{142}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 312x^{56}y^8 + 13104x^{52}y^{12} + 40960x^{50}y^{14} + 392860x^{48}y^{16} + 2269184x^{46}y^{18} + 10513936x^{44}y^{20} \\
& + 35749888x^{42}y^{22} + 123402888x^{40}y^{24} + 256212992x^{38}y^{26} + 545988272x^{36}y^{28} + 712359936x^{34}y^{30} + 921078598x^{32}y^{32} \\
& + 712359936x^{30}y^{34} + 545988272x^{28}y^{36} + 256212992x^{26}y^{38} + 123402888x^{24}y^{40} + 35749888x^{22}y^{42} + 10513936x^{20}y^{44} \\
& + 2269184x^{18}y^{46} + 392860x^{16}y^{48} + 40960x^{14}y^{50} + 13104x^{12}y^{52} + 312x^8y^{56} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{143}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 568x^{56}y^8 + 512x^{54}y^{10} + 15152x^{52}y^{12} + 52736x^{50}y^{14} + 391324x^{48}y^{16} + 2172416x^{46}y^{18} \\
& + 10425872x^{44}y^{20} + 36039168x^{42}y^{22} + 123832712x^{40}y^{24} + 255800320x^{38}y^{26} + 545025712x^{36}y^{28} + 712567808x^{34}y^{30} \\
& + 922318662x^{32}y^{32} + 712567808x^{30}y^{34} + 545025712x^{28}y^{36} + 255800320x^{26}y^{38} + 123832712x^{24}y^{40} + 36039168x^{22}y^{42} \\
& + 10425872x^{20}y^{44} + 2172416x^{18}y^{46} + 391324x^{16}y^{48} + 52736x^{14}y^{50} + 15152x^{12}y^{52} + 512x^{10}y^{54} + 568x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{144}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 1080x^{56}y^8 + 3072x^{54}y^{10} + 24368x^{52}y^{12} + 46080x^{50}y^{14} + 435356x^{48}y^{16} + 1754112x^{46}y^{18} \\
& + 11004432x^{44}y^{20} + 36043776x^{42}y^{22} + 123160456x^{40}y^{24} + 258324480x^{38}y^{26} + 541554352x^{36}y^{28} + 710461440x^{34}y^{30} \\
& + 929341254x^{32}y^{32} + 710461440x^{30}y^{34} + 541554352x^{28}y^{36} + 258324480x^{26}y^{38} + 123160456x^{24}y^{40} + 36043776x^{22}y^{42} \\
& + 11004432x^{20}y^{44} + 1754112x^{18}y^{46} + 435356x^{16}y^{48} + 46080x^{14}y^{50} + 24368x^{12}y^{52} + 3072x^{10}y^{54} + 1080x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{145}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 568x^{56}y^8 + 1024x^{54}y^{10} + 18224x^{52}y^{12} + 31744x^{50}y^{14} + 458908x^{48}y^{16} + 1911808x^{46}y^{18} \\
& + 11088400x^{44}y^{20} + 35542016x^{42}y^{22} + 122546568x^{40}y^{24} + 259057664x^{38}y^{26} + 543049392x^{36}y^{28} + 710088704x^{34}y^{30} \\
& + 927377222x^{32}y^{32} + 710088704x^{30}y^{34} + 543049392x^{28}y^{36} + 259057664x^{26}y^{38} + 122546568x^{24}y^{40} + 35542016x^{22}y^{42} \\
& + 11088400x^{20}y^{44} + 1911808x^{18}y^{46} + 458908x^{16}y^{48} + 31744x^{14}y^{50} + 18224x^{12}y^{52} + 1024x^{10}y^{54} + 568x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{146}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 568x^{56}y^8 + 1024x^{54}y^{10} + 14128x^{52}y^{12} + 56320x^{50}y^{14} + 385180x^{48}y^{16} + 2132992x^{46}y^{18} \\
& + 10510864x^{44}y^{20} + 36164608x^{42}y^{22} + 123496840x^{40}y^{24} + 255617024x^{38}y^{26} + 545728176x^{36}y^{28} + 712660992x^{34}y^{30} \\
& + 921429830x^{32}y^{32} + 712660992x^{30}y^{34} + 545728176x^{28}y^{36} + 255617024x^{26}y^{38} + 123496840x^{24}y^{40} + 36164608x^{22}y^{42} \\
& + 10510864x^{20}y^{44} + 2132992x^{18}y^{46} + 385180x^{16}y^{48} + 56320x^{14}y^{50} + 14128x^{12}y^{52} + 1024x^{10}y^{54} + 568x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{147}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 504x^{56}y^8 + 1536x^{54}y^{10} + 15920x^{52}y^{12} + 43520x^{50}y^{14} + 368668x^{48}y^{16} + 2241024x^{46}y^{18} \\
& + 10325264x^{44}y^{20} + 37109248x^{42}y^{22} + 119614920x^{40}y^{24} + 264838144x^{38}y^{26} + 529593520x^{36}y^{28} + 735953920x^{34}y^{30} \\
& + 894754886x^{32}y^{32} + 735953920x^{30}y^{34} + 529593520x^{28}y^{36} + 264838144x^{26}y^{38} + 119614920x^{24}y^{40} + 37109248x^{22}y^{42} \\
& + 10325264x^{20}y^{44} + 2241024x^{18}y^{46} + 368668x^{16}y^{48} + 43520x^{14}y^{50} + 15920x^{12}y^{52} + 1536x^{10}y^{54} + 504x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{148}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 7216x^{52}y^{12} + 49152x^{50}y^{14} + 394524x^{48}y^{16} + 2244608x^{46}y^{18} + 10466064x^{44}y^{20} \\
& + 37060608x^{42}y^{22} + 118728520x^{40}y^{24} + 264929280x^{38}y^{26} + 531689648x^{36}y^{28} + 735903744x^{34}y^{30} + 892020294x^{32}y^{32} \\
& + 735903744x^{30}y^{34} + 531689648x^{28}y^{36} + 264929280x^{26}y^{38} + 118728520x^{24}y^{40} + 37060608x^{22}y^{42} + 10466064x^{20}y^{44} \\
& + 2244608x^{18}y^{46} + 394524x^{16}y^{48} + 49152x^{14}y^{50} + 7216x^{12}y^{52} + 120x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{149}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 13360x^{52}y^{12} + 24576x^{50}y^{14} + 382236x^{48}y^{16} + 2416640x^{46}y^{18} + 10349328x^{44}y^{20} \\
& + 36569088x^{42}y^{22} + 119367496x^{40}y^{24} + 265617408x^{38}y^{26} + 530227376x^{36}y^{28} + 735559680x^{34}y^{30} + 893912646x^{32}y^{32} \\
& + 735559680x^{30}y^{34} + 530227376x^{28}y^{36} + 265617408x^{26}y^{38} + 119367496x^{24}y^{40} + 36569088x^{22}y^{42} + 10349328x^{20}y^{44} \\
& + 2416640x^{18}y^{46} + 382236x^{16}y^{48} + 24576x^{14}y^{50} + 13360x^{12}y^{52} + 120x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{150}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 1784x^{56}y^8 + 2176x^{54}y^{10} + 37424x^{52}y^{12} + 130304x^{50}y^{14} + 543260x^{48}y^{16} \\
& + 2129152x^{46}y^{18} + 9081104x^{44}y^{20} + 36335488x^{42}y^{22} + 122378440x^{40}y^{24} + 266950528x^{38}y^{26} + 526359728x^{36}y^{28} \\
& + 734639616x^{34}y^{30} + 897788998x^{32}y^{32} + 734639616x^{30}y^{34} + 526359728x^{28}y^{36} + 266950528x^{26}y^{38} + 122378440x^{24}y^{40} \\
& + 36335488x^{22}y^{42} + 9081104x^{20}y^{44} + 2129152x^{18}y^{46} + 543260x^{16}y^{48} + 130304x^{14}y^{50} + 37424x^{12}y^{52} \\
& + 2176x^{10}y^{54} + 1784x^8y^{56} + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{151}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 512x^{54}y^{10} + 10800x^{52}y^{12} + 44544x^{50}y^{14} + 384540x^{48}y^{16} + 2262528x^{46}y^{18} \\
& + 10406160x^{44}y^{20} + 37022208x^{42}y^{22} + 119094984x^{40}y^{24} + 264975360x^{38}y^{26} + 530828464x^{36}y^{28} + 735882240x^{34}y^{30} \\
& + 893142086x^{32}y^{32} + 735882240x^{30}y^{34} + 530828464x^{28}y^{36} + 264975360x^{26}y^{38} + 119094984x^{24}y^{40} + 37022208x^{22}y^{42} \\
& + 10406160x^{20}y^{44} + 2262528x^{18}y^{46} + 384540x^{16}y^{48} + 44544x^{14}y^{50} + 10800x^{12}y^{52} + 512x^{10}y^{54} + 248x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{152}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 128x^{58}y^6 + 760x^{56}y^8 + 2176x^{54}y^{10} + 16944x^{52}y^{12} + 130304x^{50}y^{14} + 541212x^{48}y^{16} \\
& + 2129152x^{46}y^{18} + 9928976x^{44}y^{20} + 36335488x^{42}y^{22} + 118463688x^{40}y^{24} + 266950528x^{38}y^{26} + 534969520x^{36}y^{28} \\
& + 734639616x^{34}y^{30} + 886750278x^{32}y^{32} + 734639616x^{30}y^{34} + 534969520x^{28}y^{36} + 266950528x^{26}y^{38} + 118463688x^{24}y^{40} \\
& + 36335488x^{22}y^{42} + 9928976x^{20}y^{44} + 2129152x^{18}y^{46} + 541212x^{16}y^{48} + 130304x^{14}y^{50} + 16944x^{12}y^{52} + 2176x^{10}y^{54} \\
& + 760x^8y^{56} + 128x^6y^{58} + 16x^4y^{60} + y^{64}
\end{aligned} \tag{153}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 512x^{54}y^{10} + 6704x^{52}y^{12} + 60928x^{50}y^{14} + 392732x^{48}y^{16} + 2147840x^{46}y^{18} \\
& + 10483984x^{44}y^{20} + 37349888x^{42}y^{22} + 118669000x^{40}y^{24} + 264516608x^{38}y^{26} + 531803312x^{36}y^{28} + 736111616x^{34}y^{30} \\
& + 891880518x^{32}y^{32} + 736111616x^{30}y^{34} + 531803312x^{28}y^{36} + 264516608x^{26}y^{38} + 118669000x^{24}y^{40} + 37349888x^{22}y^{42} \\
& + 10483984x^{20}y^{44} + 2147840x^{18}y^{46} + 392732x^{16}y^{48} + 60928x^{14}y^{50} + 6704x^{12}y^{52} + 512x^{10}y^{54} + 248x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{154}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 512x^{54}y^{10} + 12848x^{52}y^{12} + 40448x^{50}y^{14} + 338460x^{48}y^{16} + 2504192x^{46}y^{18} \\
& + 9916688x^{44}y^{20} + 37579264x^{42}y^{22} + 118132424x^{40}y^{24} + 268186624x^{38}y^{26} + 522992816x^{36}y^{28} + 748653568x^{34}y^{30} \\
& + 878251078x^{32}y^{32} + 748653568x^{30}y^{34} + 522992816x^{28}y^{36} + 268186624x^{26}y^{38} + 118132424x^{24}y^{40} + 37579264x^{22}y^{42} \\
& + 9916688x^{20}y^{44} + 2504192x^{18}y^{46} + 338460x^{16}y^{48} + 40448x^{14}y^{50} + 12848x^{12}y^{52} + 512x^{10}y^{54} + 248x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{155}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 5168x^{52}y^{12} + 57344x^{50}y^{14} + 397596x^{48}y^{16} + 2203648x^{46}y^{18} + 10382096x^{44}y^{20} \\
& + 37797888x^{42}y^{22} + 116651848x^{40}y^{24} + 269172736x^{38}y^{26} + 523976880x^{36}y^{28} + 747732992x^{34}y^{30} + 878210630x^{32}y^{32} \\
& + 747732992x^{30}y^{34} + 523976880x^{28}y^{36} + 269172736x^{26}y^{38} + 116651848x^{24}y^{40} + 37797888x^{22}y^{42} + 10382096x^{20}y^{44} \\
& + 2203648x^{18}y^{46} + 397596x^{16}y^{48} + 57344x^{14}y^{50} + 5168x^{12}y^{52} + 120x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{156}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 7728x^{52}y^{12} + 57344x^{50}y^{14} + 397852x^{48}y^{16} + 2203648x^{46}y^{18} + 10276112x^{44}y^{20} \\
& + 37797888x^{42}y^{22} + 117141192x^{40}y^{24} + 269172736x^{38}y^{26} + 522900656x^{36}y^{28} + 747732992x^{34}y^{30} + 879590470x^{32}y^{32} \\
& + 747732992x^{30}y^{34} + 522900656x^{28}y^{36} + 269172736x^{26}y^{38} + 117141192x^{24}y^{40} + 37797888x^{22}y^{42} + 10276112x^{20}y^{44} \\
& + 2203648x^{18}y^{46} + 397852x^{16}y^{48} + 57344x^{14}y^{50} + 7728x^{12}y^{52} + 248x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{157}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 8240x^{52}y^{12} + 49152x^{50}y^{14} + 350492x^{48}y^{16} + 2457600x^{46}y^{18} + 9996048x^{44}y^{20} \\
& + 37699584x^{42}y^{22} + 117659464x^{40}y^{24} + 268025856x^{38}y^{26} + 524097712x^{36}y^{28} + 748732416x^{34}y^{30} + 876813894x^{32}y^{32} \\
& + 748732416x^{30}y^{34} + 524097712x^{28}y^{36} + 268025856x^{26}y^{38} + 117659464x^{24}y^{40} + 37699584x^{22}y^{42} + 9996048x^{20}y^{44} \\
& + 2457600x^{18}y^{46} + 350492x^{16}y^{48} + 49152x^{14}y^{50} + 8240x^{12}y^{52} + 120x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{158}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 512x^{54}y^{10} + 5168x^{52}y^{12} + 60928x^{50}y^{14} + 348444x^{48}y^{16} + 2360832x^{46}y^{18} \\
& + 10119952x^{44}y^{20} + 37988864x^{42}y^{22} + 117110600x^{40}y^{24} + 267613184x^{38}y^{26} + 525287600x^{36}y^{28} + 748940288x^{34}y^{30} \\
& + 875294278x^{32}y^{32} + 748940288x^{30}y^{34} + 525287600x^{28}y^{36} + 267613184x^{26}y^{38} + 117110600x^{24}y^{40} + 37988864x^{22}y^{42} \\
& + 10119952x^{20}y^{44} + 2360832x^{18}y^{46} + 348444x^{16}y^{48} + 60928x^{14}y^{50} + 5168x^{12}y^{52} + 512x^{10}y^{54} + 120x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{159}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 512x^{54}y^{10} + 8240x^{52}y^{12} + 40448x^{50}y^{14} + 424220x^{48}y^{16} + 2110976x^{46}y^{18} \\
& + 10716944x^{44}y^{20} + 37448192x^{42}y^{22} + 116053832x^{40}y^{24} + 270939136x^{38}y^{26} + 522852528x^{36}y^{28} + 746425344x^{34}y^{30} \\
& + 880926278x^{32}y^{32} + 746425344x^{30}y^{34} + 522852528x^{28}y^{36} + 270939136x^{26}y^{38} + 116053832x^{24}y^{40} + 37448192x^{22}y^{42} \\
& + 10716944x^{20}y^{44} + 2110976x^{18}y^{46} + 424220x^{16}y^{48} + 40448x^{14}y^{50} + 8240x^{12}y^{52} + 512x^{10}y^{54} + 120x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{160}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 248x^{56}y^8 + 9776x^{52}y^{12} + 53248x^{50}y^{14} + 352796x^{48}y^{16} + 2428928x^{46}y^{18} + 9909520x^{44}y^{20} \\
& + 37781504x^{42}y^{22} + 118042312x^{40}y^{24} + 267911168x^{38}y^{26} + 523265200x^{36}y^{28} + 748789760x^{34}y^{30} + 877878342x^{32}y^{32} \\
& + 748789760x^{30}y^{34} + 523265200x^{28}y^{36} + 267911168x^{26}y^{38} + 118042312x^{24}y^{40} + 37781504x^{22}y^{42} + 9909520x^{20}y^{44} \\
& + 2428928x^{18}y^{46} + 352796x^{16}y^{48} + 53248x^{14}y^{50} + 9776x^{12}y^{52} + 248x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{161}$$

- $$\begin{aligned}
& x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 3120x^{52}y^{12} + 65536x^{50}y^{14} + 401692x^{48}y^{16} + 2146304x^{46}y^{18} + 10421008x^{44}y^{20} \\
& + 37961728x^{42}y^{22} + 116438856x^{40}y^{24} + 268943360x^{38}y^{26} + 524464304x^{36}y^{28} + 747847680x^{34}y^{30} + 877579846x^{32}y^{32} \\
& + 747847680x^{30}y^{34} + 524464304x^{28}y^{36} + 268943360x^{26}y^{38} + 116438856x^{24}y^{40} + 37961728x^{22}y^{42} + 10421008x^{20}y^{44} \\
& + 2146304x^{18}y^{46} + 401692x^{16}y^{48} + 65536x^{14}y^{50} + 3120x^{12}y^{52} + 120x^8y^{56} \\
& + 16x^4y^{60} + y^{64}
\end{aligned} \tag{162}$$

- $x^{64} + 16x^{60}y^4 + 1016x^{56}y^8 + 512x^{54}y^{10} + 22064x^{52}y^{12} + 56832x^{50}y^{14} + 434204x^{48}y^{16} + 1996288x^{46}y^{18}$
 $+ 10052880x^{44}y^{20} + 37775872x^{42}y^{22} + 119053256x^{40}y^{24} + 270480384x^{38}y^{26} + 516293808x^{36}y^{28} + 746654720x^{34}y^{30}$
 $+ 889323590x^{32}y^{32} + 746654720x^{30}y^{34} + 516293808x^{28}y^{36} + 270480384x^{26}y^{38} + 119053256x^{24}y^{40} + 37775872x^{22}y^{42}$
 $+ 10052880x^{20}y^{44} + 1996288x^{18}y^{46} + 434204x^{16}y^{48} + 56832x^{14}y^{50} + 22064x^{12}y^{52} + 512x^{10}y^{54} + 1016x^8y^{56}$
 $+ 16x^4y^{60} + y^{64}$ (163)
- $x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 1024x^{54}y^{10} + 10288x^{52}y^{12} + 35840x^{50}y^{14} + 370972x^{48}y^{16} + 2325504x^{46}y^{18}$
 $+ 10415888x^{44}y^{20} + 37475328x^{42}y^{22} + 116725576x^{40}y^{24} + 269608960x^{38}y^{26} + 523675824x^{36}y^{28} + 747517952x^{34}y^{30}$
 $+ 878640710x^{32}y^{32} + 747517952x^{30}y^{34} + 523675824x^{28}y^{36} + 269608960x^{26}y^{38} + 116725576x^{24}y^{40} + 37475328x^{22}y^{42}$
 $+ 10415888x^{20}y^{44} + 2325504x^{18}y^{46} + 370972x^{16}y^{48} + 35840x^{14}y^{50} + 10288x^{12}y^{52} + 1024x^{10}y^{54} + 120x^8y^{56}$
 $+ 16x^4y^{60} + y^{64}$ (164)
- $x^{64} + 16x^{60}y^4 + 504x^{56}y^8 + 512x^{54}y^{10} + 11824x^{52}y^{12} + 56832x^{50}y^{14} + 433180x^{48}y^{16} + 1996288x^{46}y^{18}$
 $+ 10476816x^{44}y^{20} + 37775872x^{42}y^{22} + 117095880x^{40}y^{24} + 270480384x^{38}y^{26} + 520598704x^{36}y^{28} + 746654720x^{34}y^{30}$
 $+ 883804230x^{32}y^{32} + 746654720x^{30}y^{34} + 520598704x^{28}y^{36} + 270480384x^{26}y^{38} + 117095880x^{24}y^{40} + 37775872x^{22}y^{42}$
 $+ 10476816x^{20}y^{44} + 1996288x^{18}y^{46} + 433180x^{16}y^{48} + 56832x^{14}y^{50} + 11824x^{12}y^{52} + 512x^{10}y^{54} + 504x^8y^{56}$
 $+ 16x^4y^{60} + y^{64}$ (165)
- $x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 1536x^{54}y^{10} + 7216x^{52}y^{12} + 47616x^{50}y^{14} + 368924x^{48}y^{16} + 2228736x^{46}y^{18}$
 $+ 10539792x^{44}y^{20} + 37764608x^{42}y^{22} + 116176712x^{40}y^{24} + 269196288x^{38}y^{26} + 524865712x^{36}y^{28} + 747725824x^{34}y^{30}$
 $+ 877121094x^{32}y^{32} + 747725824x^{30}y^{34} + 524865712x^{28}y^{36} + 269196288x^{26}y^{38} + 116176712x^{24}y^{40} + 37764608x^{22}y^{42}$
 $+ 10539792x^{20}y^{44} + 2228736x^{18}y^{46} + 368924x^{16}y^{48} + 47616x^{14}y^{50} + 7216x^{12}y^{52} + 1536x^{10}y^{54} + 120x^8y^{56}$
 $+ 16x^4y^{60} + y^{64}$ (166)
- $x^{64} + 16x^{60}y^4 + 504x^{56}y^8 + 1024x^{54}y^{10} + 12848x^{52}y^{12} + 56320x^{50}y^{14} + 381980x^{48}y^{16} + 2182144x^{46}y^{18}$
 $+ 10195216x^{44}y^{20} + 37884928x^{42}y^{22} + 117661128x^{40}y^{24} + 269035520x^{38}y^{26} + 521665712x^{36}y^{28} + 747804672x^{34}y^{30}$
 $+ 881203270x^{32}y^{32} + 747804672x^{30}y^{34} + 521665712x^{28}y^{36} + 269035520x^{26}y^{38} + 117661128x^{24}y^{40} + 37884928x^{22}y^{42}$
 $+ 10195216x^{20}y^{44} + 2182144x^{18}y^{46} + 381980x^{16}y^{48} + 56320x^{14}y^{50} + 12848x^{12}y^{52} + 1024x^{10}y^{54} + 504x^8y^{56}$
 $+ 16x^4y^{60} + y^{64}$ (167)
- $x^{64} + 16x^{60}y^4 + 120x^{56}y^8 + 512x^{54}y^{10} + 6192x^{52}y^{12} + 48640x^{50}y^{14} + 428316x^{48}y^{16} + 2053632x^{46}y^{18}$
 $+ 10755856x^{44}y^{20} + 37612032x^{42}y^{22} + 115840840x^{40}y^{24} + 270709760x^{38}y^{26} + 523339952x^{36}y^{28} + 746540032x^{34}y^{30}$
 $+ 880295494x^{32}y^{32} + 746540032x^{30}y^{34} + 523339952x^{28}y^{36} + 270709760x^{26}y^{38} + 115840840x^{24}y^{40} + 37612032x^{22}y^{42}$
 $+ 10755856x^{20}y^{44} + 2053632x^{18}y^{46} + 428316x^{16}y^{48} + 48640x^{14}y^{50} + 6192x^{12}y^{52} + 512x^{10}y^{54} + 120x^8y^{56}$
 $+ 16x^4y^{60} + y^{64}$ (168)

Table 3: Cyclic self-dual codes over \mathbb{Z}_9 of length 3

No.	Ideals	No.	Ideals
1	$\langle 3 \rangle$	2	$\langle (x-1)^2 + 6 \rangle$

Table 4: Cyclic self-dual codes over \mathbb{Z}_9 of length 9

No.	Ideals	No.	Ideals
1	$\langle 3 \rangle$	5	$\langle (x-1)^7 + 6 \rangle$
2	$\langle (x-1)^8, 3(x-1) \rangle$	6	$\langle (x-1)^6 + 6 \rangle$
3	$\langle (x-1)^7 + 6(x-1), 3(x-1)^2 \rangle$	7	$\langle (x-1)^6 + 6 + (x-1) + (x-1)^2 \rangle$
4	$\langle (x-1)^7 + 3 + 3(x-1) \rangle$	8	$\langle (x-1)^6 + 6 + 6(x-1) + 6(x-1)^2 \rangle$

Table 5: Cyclic self-dual codes over \mathbb{Z}_9 of length 27

No.	Ideals
1	$\langle 3 \rangle$
2	$\langle (x-1)^{26}, 3(x-1) \rangle$
3	$\langle (x-1)^{25}, 3(x-1)^2 \rangle$
4	$\langle (x-1)^{25} + 6 + 3(x-1) \rangle$
5	$\langle (x-1)^{25} + 3 + 2(x-1) \rangle$
6	$\langle (x-1)^{24}, 3(x-1)^3 \rangle$
7	$\langle (x-1)^{24} + 3(x-1) + 3(x-1)^2, 3(x-1)^3 \rangle$
8	$\langle (x-1)^{24} + 6(x-1) + 6(x-1)^2, 3(x-1)^3 \rangle$
9	$\langle (x-1)^{23}, (x-1)^4 \rangle$
10	$\langle (x-1)^{23} + 3(x-1)^2, 3(x-1)^4 \rangle$
11	$\langle (x-1)^{23} + 6(x-1)^2, 3(x-1)^4 \rangle$
12	$\langle (x-1)^{23} + 3 + 3(x-1) + 6(x-1)^3 \rangle$
13	$\langle (x-1)^{23} + 3 + 3(x-1) + 6(x-1)^2 + 6(x-1)^3 \rangle$
14	$\langle (x-1)^{23} + 6 + 6(x-1) + 6(x-1)^2 + 3(x-1)^3 \rangle$
15	$\langle (x-1)^{23} + 3 + 3(x-1) + 3(x-1)^2 + 6(x-1)^3 \rangle$
16	$\langle (x-1)^{23} + 6 + 6(x-1) + 3(x-1)^2 + 3(x-1)^3 \rangle$
17	$\langle (x-1)^{23} + 6 + 6(x-1) + 3(x-1)^3 \rangle$
18	$\langle (x-1)^{22} + 6(x-1)^4, 3(x-1)^5 \rangle$
19	$\langle (x-1)^{22} + 3(x-1)^3 + 3(x-1)^4, 3(x-1)^5 \rangle$

Table 5: Cyclic self-dual codes over \mathbb{Z}_9 of length 27 (continued)

No.	Ideals
20	$\langle (x-1)^{22} + 6(x-1) + 3(x-1)^3 + 6(x-1)^4, 3(x-1)^5 \rangle$
21	$\langle (x-1)^{22} + 6(x-1)^3, 3(x-1)^5 \rangle$
22	$\langle (x-1)^{22} + 3(x-1) + 3(x-1)^4, 3(x-1)^5 \rangle$
23	$\langle (x-1)^{22} + 3(x-1) + 6(x-1)^3 + 6(x-1)^4, 3(x-1)^5 \rangle$
24	$\langle (x-1)^{22} + 6(x-1)^4, 3(x-1)^5 \rangle$
25	$\langle (x-1)^{22} + 3(x-1) + 3(x-1)^3, 3(x-1)^5 \rangle$
26	$\langle (x-1)^{22} + 6(x-1) + 6(x-1)^3 + (x-1)^4, 3(x-1)^5 \rangle$
27	$\langle (x-1)^{21} + 3(x-1)^2 + 3(x-1)^3, 3(x-1)^6 \rangle$
28	$\langle (x-1)^{21} + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5, 3(x-1)^6 \rangle$
29	$\langle (x-1)^{21} + 6(x-1)^2 + 3(x-1)^4 + 3(x-1)^5, 3(x-1)^6 \rangle$
30	$\langle (x-1)^{21} + 3(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 6(x-1)^5, 3(x-1)^6 \rangle$
31	$\langle (x-1)^{21} + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5, 3(x-1)^6 \rangle$
32	$\langle (x-1)^{21} + 6(x-1)^2, 3(x-1)^6 \rangle$
33	$\langle (x-1)^{21} + 6(x-1)^2 + 6(x-1)^4 + 6(x-1)^5, 3(x-1)^6 \rangle$
34	$\langle (x-1)^{21} + 6(x-1)^3 + 3(x-1)^4 + 3(x-1)^5, 3(x-1)^6 \rangle$
35	$\langle (x-1)^{21} + 6(x-1)^3, 3(x-1)^6 \rangle$
36	$\langle (x-1)^{21} + 3 + 6(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 \rangle$
37	$\langle (x-1)^{21} + 3 + 3(x-1)^2 \rangle$
38	$\langle (x-1)^{21} + 3 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 \rangle$
39	$\langle (x-1)^{21} + 6 + 3(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 \rangle$
40	$\langle (x-1)^{21} + 6 + 6(x-1)^4 + 6(x-1)^5 \rangle$
41	$\langle (x-1)^{21} + 3 + 3(x-1)^3 \rangle$
42	$\langle (x-1)^{21} + 6 + 3(x-1)^4 + 3(x-1)^5 \rangle$
43	$\langle (x-1)^{21} + 6 + 6(x-1)^2 + 3(x-1)^3 \rangle$
44	$\langle (x-1)^{21} + 3 + 6(x-1)^2 + 6(x-1)^3 \rangle$
45	$\langle (x-1)^{21} + 6 + 3(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 \rangle$
46	$\langle (x-1)^{21} + 6 + 6(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 \rangle$
47	$\langle (x-1)^{21} + 3 + 3(x-1)^2 + 6(x-1)^4 + 6(x-1)^5 \rangle$
48	$\langle (x-1)^{21} + 6 \rangle$
49	$\langle (x-1)^{21} + 3 + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 \rangle$
50	$\langle (x-1)^{21} + 6 + 3(x-1)^2 + 6(x-1)^3 \rangle$
51	$\langle (x-1)^{21} + 3 + 3(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 \rangle$
52	$\langle (x-1)^{21} + 3 + 3(x-1)^2 + 3(x-1)^4 + 3(x-1)^5 \rangle$
53	$\langle (x-1)^{21} + 6 + 6(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 \rangle$
54	$\langle (x-1)^{20} + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 + 6(x-1)^6, 3(x-1)^7 \rangle$

Table 5: Cyclic self-dual codes over \mathbb{Z}_9 of length 27 (continued)

No.	Ideals
55	$\langle (x-1)^{20} + 3(x-1) + 3(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 + 6(x-1)^6, 3(x-1)^7 \rangle$
56	$\langle (x-1)^{20} + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^6, 3(x-1)^7 \rangle$
57	$\langle (x-1)^{20} + 3(x-1) + 3(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^6, 3(x-1)^7 \rangle$
58	$\langle (x-1)^{20} + 6(x-1) + 3(x-1)^3 + 3(x-1)^4 + 6(x-1)^5 + 3(x-1)^6, 3(x-1)^7 \rangle$
59	$\langle (x-1)^{20} + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 3(x-1)^6, 3(x-1)^7 \rangle$
60	$\langle (x-1)^{20} + 6(x-1) + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^6, 3(x-1)^7 \rangle$
61	$\langle (x-1)^{20} + 6(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 6(x-1)^5 + 3(x-1)^6, 3(x-1)^7 \rangle$
62	$\langle (x-1)^{20} + 6(x-1)^2, 3(x-1)^7 \rangle$
63	$\langle (x-1)^{20} + 3(x-1) + 3(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 6(x-1)^6, 3(x-1)^7 \rangle$
64	$\langle (x-1)^{20} + 3(x-1) + 3(x-1)^2 + 3(x-1)^5, 3(x-1)^7 \rangle$
65	$\langle (x-1)^{20} + 6(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 3(x-1)^6, 3(x-1)^7 \rangle$
66	$\langle (x-1)^{20} + 6(x-1) + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 3(x-1)^6, 3(x-1)^7 \rangle$
67	$\langle (x-1)^{20} + 6(x-1), 3(x-1)^7 \rangle$
68	$\langle (x-1)^{20} + 3(x-1) + 3(x-1)^2 + 6(x-1)^5, 3(x-1)^7 \rangle$
69	$\langle (x-1)^{20} + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 6(x-1)^6, 3(x-1)^7 \rangle$
70	$\langle (x-1)^{20} + 6(x-1) + 6(x-1)^5, 3(x-1)^7 \rangle$
71	$\langle (x-1)^{20} + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^6, 3(x-1)^7 \rangle$
72	$\langle (x-1)^{20} + 6(x-1)^2 + 6(x-1)^5, 3(x-1)^7 \rangle$
73	$\langle (x-1)^{20} + 6(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^6, 3(x-1)^7 \rangle$
74	$\langle (x-1)^{20} + 6(x-1) + 6(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 + 6(x-1)^6, 3(x-1)^7 \rangle$
75	$\langle (x-1)^{20} + 3(x-1) + 3(x-1)^2, 3(x-1)^7 \rangle$
76	$\langle (x-1)^{20} + 6(x-1) + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 6(x-1)^6, 3(x-1)^7 \rangle$
77	$\langle (x-1)^{20} + 6(x-1)^2 + 3(x-1)^5, 3(x-1)^7 \rangle$
78	$\langle (x-1)^{20} + 6(x-1) + 3(x-1)^5, 3(x-1)^7 \rangle$
79	$\langle (x-1)^{20} + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 6(x-1)^5 + 3(x-1)^6, 3(x-1)^7 \rangle$
80	$\langle (x-1)^{20} + 6(x-1) + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^6, 3(x-1)^7 \rangle$
81	$\langle (x-1)^{19} + 6(x-1) + 6(x-1)^4 + 6(x-1)^7 \rangle$
82	$\langle (x-1)^{19} + 6(x-1) + 3(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 \rangle$
83	$\langle (x-1)^{19} + 6(x-1) + 3(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 + 3(x-1)^6 + 6(x-1)^7 \rangle$
84	$\langle (x-1)^{19} + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 6(x-1)^5 \rangle$
85	$\langle (x-1)^{19} + 6(x-1) + 3(x-1)^4 + 3(x-1)^6 \rangle$
86	$\langle (x-1)^{19} + 6(x-1) + 3(x-1)^4 + 6(x-1)^6 + 6(x-1)^7 \rangle$
87	$\langle (x-1)^{19} + 6(x-1) + 6(x-1)^4 + 3(x-1)^6 + 3(x-1)^7 \rangle$
88	$\langle (x-1)^{19} + 6(x-1) + 3(x-1)^6 + 6(x-1)^7 \rangle$
89	$\langle (x-1)^{19} + 6(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^5 + 6(x-1)^6 + 6(x-1)^7 \rangle$

Table 5: Cyclic self-dual codes over \mathbb{Z}_9 of length 27 (continued)

No.	Ideals
90	$\langle (x-1)^{19} + 6(x-1) \rangle$
91	$\langle (x-1)^{19} + 6(x-1) + 6(x-1)^6 + 3(x-1)^7 \rangle$
92	$\langle (x-1)^{19} + 6(x-1) + 6(x-1)^4 + 6(x-1)^6 \rangle$
93	$\langle (x-1)^{19} + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 6(x-1)^6 + 6(x-1)^7 \rangle$
94	$\langle (x-1)^{19} + 6(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 6(x-1)^7 \rangle$
95	$\langle (x-1)^{19} + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 3(x-1)^7 \rangle$
96	$\langle (x-1)^{19} + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^5 + 6(x-1)^6 \rangle$
97	$\langle (x-1)^{19} + 6(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^5 + 3(x-1)^6 \rangle$
98	$\langle (x-1)^{19} + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 6(x-1)^5 + 6(x-1)^6 + 3(x-1)^7 \rangle$
99	$\langle (x-1)^{19} + 6(x-1) + 3(x-1)^4 + 3(x-1)^7 \rangle$
100	$\langle (x-1)^{19} + 6(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^5 + 3(x-1)^7 \rangle$
101	$\langle (x-1)^{19} + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^5 + 6(x-1)^7 \rangle$
102	$\langle (x-1)^{19} + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^5 + 3(x-1)^6 + 3(x-1)^7 \rangle$
103	$\langle (x-1)^{19} + 6(x-1) + 3(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 + 6(x-1)^6 + 3(x-1)^7 \rangle$
104	$\langle (x-1)^{19} + 6(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 6(x-1)^6 \rangle$
105	$\langle (x-1)^{19} + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 3(x-1)^6 \rangle$
106	$\langle (x-1)^{19} + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 6(x-1)^5 + 3(x-1)^6 + 6(x-1)^7 \rangle$
107	$\langle (x-1)^{19} + 6(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 3(x-1)^6 + 3(x-1)^7 \rangle$
108	$\langle (x-1)^{19} + 3 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 3(x-1)^5, 3(x-1)^8 \rangle$
109	$\langle (x-1)^{19} + 3 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^5 + 3(x-1)^7, 3(x-1)^8 \rangle$
110	$\langle (x-1)^{19} + 3 + 3(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^5 + 3(x-1)^6 + 3(x-1)^7, 3(x-1)^8 \rangle$
111	$\langle (x-1)^{19} + 3 + 3(x-1), 3(x-1)^8 \rangle$
112	$\langle (x-1)^{19} + 6 + 3(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 + 6(x-1)^6, 3(x-1)^8 \rangle$
113	$\langle (x-1)^{19} + 6 + 6(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 6(x-1)^5, 3(x-1)^8 \rangle$
114	$\langle (x-1)^{19} + 6 + 3(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 3(x-1)^5, 3(x-1)^8 \rangle$
115	$\langle (x-1)^{19} + 6 + 3(x-1)^4 + 3(x-1)^6, 3(x-1)^8 \rangle$
116	$\langle (x-1)^{19} + 3 + 3(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^5 + 6(x-1)^7, 3(x-1)^8 \rangle$
117	$\langle (x-1)^{19} + 6 + 3(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 + 3(x-1)^6 + 6(x-1)^7, 3(x-1)^8 \rangle$
118	$\langle (x-1)^{19} + 6 + 3(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 + 6(x-1)^6 + 3(x-1)^7, 3(x-1)^8 \rangle$
119	$\langle (x-1)^{19} + 3 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 3(x-1)^6 + 3(x-1)^7, 3(x-1)^8 \rangle$
120	$\langle (x-1)^{19} + 6 + 6(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 6(x-1)^5 + 3(x-1)^6 + 6(x-1)^7, 3(x-1)^8 \rangle$
121	$\langle (x-1)^{19} + 3 + 3(x-1) + 3(x-1)^4 + 6(x-1)^6 + 6(x-1)^7, 3(x-1)^8 \rangle$
122	$\langle (x-1)^{19} + 3 + 3(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^5 + 6(x-1)^6, 3(x-1)^8 \rangle$
123	$\langle (x-1)^{19} + 6 + 6(x-1)^4 + 3(x-1)^6 + 3(x-1)^7, 3(x-1)^8 \rangle$
124	$\langle (x-1)^{19} + 6 + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^5 + 3(x-1)^6 + 3(x-1)^7, 3(x-1)^8 \rangle$

Table 5: Cyclic self-dual codes over \mathbb{Z}_9 of length 27 (continued)

No.	Ideals
125	$\langle (x-1)^{19} + 3 + 3(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 3(x-1)^7, 3(x-1)^8 \rangle$
126	$\langle (x-1)^{19} + 6 + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^5 + 6(x-1)^7, 3(x-1)^8 \rangle$
127	$\langle (x-1)^{19} + 3 + 3(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 6(x-1)^6 + 6(x-1)^7, 3(x-1)^8 \rangle$
128	$\langle (x-1)^{19} + 6 + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 6(x-1)^7, 3(x-1)^8 \rangle$
129	$\langle (x-1)^{19} + 6 + 6(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 6(x-1)^5 + 6(x-1)^6 + 3(x-1)^7, 3(x-1)^8 \rangle$
130	$\langle (x-1)^{19} + 3 + 3(x-1) + 3(x-1)^4 + 3(x-1)^7, 3(x-1)^8 \rangle$
131	$\langle (x-1)^{19} + 6 + 3(x-1)^4 + 3(x-1)^7, 3(x-1)^8 \rangle$
132	$\langle (x-1)^{19} + 3 + 3(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 3(x-1)^6, 3(x-1)^8 \rangle$
133	$\langle (x-1)^{19} + 3 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^5 + 6(x-1)^6 + 6(x-1)^7, 3(x-1)^8 \rangle$
134	$\langle (x-1)^{19} + 3 + 3(x-1) + 6(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 6(x-1)^5 + 3(x-1)^6 + 6(x-1)^7, 3(x-1)^8 \rangle$
135	$\langle (x-1)^{19} + 6 + 6(x-1)^4 + 6(x-1)^7, 3(x-1)^8 \rangle$
136	$\langle (x-1)^{19} + 3 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 6(x-1)^6, 3(x-1)^8 \rangle$
137	$\langle (x-1)^{19} + 3 + 3(x-1) + 6(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 6(x-1)^5 + 6(x-1)^6 + 3(x-1)^7, 3(x-1)^8 \rangle$
138	$\langle (x-1)^{19} + 6 + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^5 + 6(x-1)^6, 3(x-1)^8 \rangle$
139	$\langle (x-1)^{19} + 6 + 6(x-1)^6 + 3(x-1)^7, 3(x-1)^8 \rangle$
140	$\langle (x-1)^{19} + 6 + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^5 + 3(x-1)^7, 3(x-1)^8 \rangle$
141	$\langle (x-1)^{19} + 3 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 + 3(x-1)^6 + 6(x-1)^7, 3(x-1)^8 \rangle$
142	$\langle (x-1)^{19} + 6 + 3(x-1)^6 + 6(x-1)^7, 3(x-1)^8 \rangle$
143	$\langle (x-1)^{19} + 6 + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^5 + 3(x-1)^6, 3(x-1)^8 \rangle$
144	$\langle (x-1)^{19} + 6 + 3(x-1)^4 + 6(x-1)^6 + 6(x-1)^7, 3(x-1)^8 \rangle$
145	$\langle (x-1)^{19} + 3 + 3(x-1) + 6(x-1)^4 + 3(x-1)^6 + 3(x-1)^7, 3(x-1)^8 \rangle$
146	$\langle (x-1)^{19} + 3 + 3(x-1) + 6(x-1)^4 + 6(x-1)^7, 3(x-1)^8 \rangle$
147	$\langle (x-1)^{19} + 6 + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 3(x-1)^6, 3(x-1)^8 \rangle$
148	$\langle (x-1)^{19} + 3 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^5 + 3(x-1)^6, 3(x-1)^8 \rangle$
149	$\langle (x-1)^{19} + 3 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 + 6(x-1)^6 + 3(x-1)^7, 3(x-1)^8 \rangle$
150	$\langle (x-1)^{19} + 6 + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 3(x-1)^6 + 3(x-1)^7, 3(x-1)^8 \rangle$
151	$\langle (x-1)^{19} + 6 + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 6(x-1)^6 + 6(x-1)^7, 3(x-1)^8 \rangle$
152	$\langle (x-1)^{19} + 3 + 3(x-1) + 6(x-1)^4 + 6(x-1)^6, 3(x-1)^8 \rangle$
153	$\langle (x-1)^{19} + 3 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 6(x-1)^7, 3(x-1)^8 \rangle$
154	$\langle (x-1)^{19} + 6 + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 3(x-1)^7, 3(x-1)^8 \rangle$
155	$\langle (x-1)^{19} + 3 + 3(x-1) + 6(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 6(x-1)^5, 3(x-1)^8 \rangle$
156	$\langle (x-1)^{19} + 3 + 3(x-1) + 6(x-1)^6 + 3(x-1)^7, 3(x-1)^8 \rangle$
157	$\langle (x-1)^{19} + 3 + 3(x-1) + 3(x-1)^6 + 6(x-1)^7, 3(x-1)^8 \rangle$
158	$\langle (x-1)^{19} + 3 + 3(x-1) + 3(x-1)^4 + 3(x-1)^6, 3(x-1)^8 \rangle$
159	$\langle (x-1)^{19} + 6 + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^5 + 6(x-1)^6 + 6(x-1)^7, 3(x-1)^8 \rangle$

Table 5: Cyclic self-dual codes over \mathbb{Z}_9 of length 27 (continued)

No.	Ideals
160	$\langle (x-1)^{19} + 6 + 6(x-1)^4 + 6(x-1)^6, 3(x-1)^8 \rangle$
161	$\langle (x-1)^{19} + 6, 3(x-1)^8 \rangle$
162	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^4 + 6(x-1)^5 + 6(x-1)^7 + 6(x-1)^8 \rangle$
163	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^4 + 3(x-1)^5 + 6(x-1)^7 \rangle$
164	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 6(x-1)^6 + 6(x-1)^7 + 6(x-1)^8 \rangle$
165	$\langle (x-1)^{18} + 6 + 6(x-1)^3 + 6(x-1)^5 + 6(x-1)^7 + 6(x-1)^8 \rangle$
166	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 6(x-1)^6 + 6(x-1)^7 + 6(x-1)^8 \rangle$
167	$\langle (x-1)^{18} + 6 + 6(x-1)^3 + 6(x-1)^5 + 6(x-1)^7 \rangle$
168	$\langle (x-1)^{18} + 6 + 6(x-1)^3 + 6(x-1)^5 + 3(x-1)^8 \rangle$
169	$\langle (x-1)^{18} + 6 + 3(x-1)^3 + 3(x-1)^6 + 3(x-1)^7 + 3(x-1)^8 \rangle$
170	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 3(x-1)^6 + 3(x-1)^7 + 3(x-1)^8 \rangle$
171	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^4 + 3(x-1)^5 + 3(x-1)^6 + 6(x-1)^7 \rangle$
172	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 + 6(x-1)^6 + 3(x-1)^7 + 6(x-1)^8 \rangle$
173	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 6(x-1)^6 + 3(x-1)^7 + 3(x-1)^8 \rangle$
174	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 3(x-1)^6 + 6(x-1)^7 + 6(x-1)^8 \rangle$
175	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 6(x-1)^6 + 6(x-1)^7 \rangle$
176	$\langle (x-1)^{18} + 6 + 3(x-1)^5 + 6(x-1)^6 + 3(x-1)^7 \rangle$
177	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 6(x-1)^5 + 3(x-1)^7 \rangle$
178	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^4 + 3(x-1)^6 + 3(x-1)^7 + 6(x-1)^8 \rangle$
179	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 3(x-1)^6 + 3(x-1)^7 + 3(x-1)^8 \rangle$
180	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 + 6(x-1)^6 + 3(x-1)^8 \rangle$
181	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 6(x-1)^5 + 6(x-1)^7 + 3(x-1)^8 \rangle$
182	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 6(x-1)^6 + 3(x-1)^8 \rangle$
183	$\langle (x-1)^{18} + 6 + 3(x-1)^3 + 3(x-1)^6 + 6(x-1)^7 + 6(x-1)^8 \rangle$
184	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^4 + 6(x-1)^5 + 6(x-1)^6 + 6(x-1)^7 + 3(x-1)^8 \rangle$
185	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^4 + 6(x-1)^5 + 6(x-1)^6 + 6(x-1)^8 \rangle$
186	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 3(x-1)^6 + 6(x-1)^7 + 6(x-1)^8 \rangle$
187	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^4 + 3(x-1)^5 + 3(x-1)^7 + 3(x-1)^8 \rangle$
188	$\langle (x-1)^{18} + 6 + 3(x-1)^5 + 6(x-1)^6 + 6(x-1)^8 \rangle$
189	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 3(x-1)^4 + 3(x-1)^5 + 3(x-1)^6 + 3(x-1)^7 + 6(x-1)^8 \rangle$
190	$\langle (x-1)^{18} + 6 \rangle$
191	$\langle (x-1)^{18} + 6 + 6(x-1)^3 + 3(x-1)^5 + 3(x-1)^6 + 3(x-1)^7 \rangle$
192	$\langle (x-1)^{18} + 6 + 3(x-1)^3 + 3(x-1)^5 + 6(x-1)^7 + 3(x-1)^8 \rangle$
193	$\langle (x-1)^{18} + 6 + 3(x-1)^3 + 3(x-1)^5 + 6(x-1)^8 \rangle$
194	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 + 3(x-1)^7 + 6(x-1)^8 \rangle$

Table 5: Cyclic self-dual codes over \mathbb{Z}_9 of length 27 (continued)

No.	Ideals
195	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^4 + 3(x-1)^6 + 3(x-1)^8 \rangle$
196	$\langle (x-1)^{18} + 6 + 3(x-1)^3 + 6(x-1)^5 + 6(x-1)^6 + 6(x-1)^7 \rangle$
197	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^4 + 3(x-1)^5 + 3(x-1)^6 + 3(x-1)^8 \rangle$
198	$\langle (x-1)^{18} + 6 + 3(x-1)^3 + 6(x-1)^5 + 6(x-1)^6 + 3(x-1)^7 + 6(x-1)^8 \rangle$
199	$\langle (x-1)^{18} + 6 + 6(x-1)^5 + 3(x-1)^6 + 3(x-1)^7 + 6(x-1)^8 \rangle$
200	$\langle (x-1)^{18} + 6 + 3(x-1)^7 + 3(x-1)^8 \rangle$
201	$\langle (x-1)^{18} + 6 + 3(x-1)^3 + 6(x-1)^5 + 6(x-1)^6 + 3(x-1)^8 \rangle$
202	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 6(x-1)^8 \rangle$
203	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 6(x-1)^5 + 3(x-1)^6 + 3(x-1)^7 \rangle$
204	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 + 6(x-1)^6 + 6(x-1)^7 \rangle$
205	$\langle (x-1)^{18} + 6 + 6(x-1)^7 + 6(x-1)^8 \rangle$
206	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 3(x-1)^6 + 6(x-1)^7 + 3(x-1)^8 \rangle$
207	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 6(x-1)^5 + 6(x-1)^8 \rangle$
208	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^4 + 6(x-1)^5 + 3(x-1)^7 + 3(x-1)^8 \rangle$
209	$\langle (x-1)^{18} + 6 + 6(x-1)^3 + 6(x-1)^5 + 3(x-1)^7 + 6(x-1)^8 \rangle$
210	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^4 + 6(x-1)^6 + 3(x-1)^7 \rangle$
211	$\langle (x-1)^{18} + 6 + 6(x-1)^5 + 3(x-1)^6 + 3(x-1)^8 \rangle$
212	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^4 + 6(x-1)^5 \rangle$
213	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 + 6(x-1)^7 \rangle$
214	$\langle (x-1)^{18} + 6 + 3(x-1)^3 + 3(x-1)^5 + 3(x-1)^7 \rangle$
215	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 6(x-1)^6 + 3(x-1)^7 + 3(x-1)^8 \rangle$
216	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 3(x-1)^8 \rangle$
217	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 6(x-1)^5 + 3(x-1)^6 + 6(x-1)^8 \rangle$
218	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 3(x-1)^5 + 3(x-1)^8 \rangle$
219	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^4 + 3(x-1)^5 \rangle$
220	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^4 + 6(x-1)^6 + 6(x-1)^7 + 3(x-1)^8 \rangle$
221	$\langle (x-1)^{18} + 6 + 3(x-1)^5 + 6(x-1)^6 + 6(x-1)^7 + 3(x-1)^8 \rangle$
222	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 6(x-1)^6 \rangle$
223	$\langle (x-1)^{18} + 6 + 6(x-1)^3 + 6(x-1)^6 + 3(x-1)^7 + 3(x-1)^8 \rangle$
224	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 6(x-1)^7 \rangle$
225	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 3(x-1)^6 + 6(x-1)^8 \rangle$
226	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^4 + 6(x-1)^5 + 6(x-1)^6 + 3(x-1)^7 \rangle$
227	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 6(x-1)^5 + 3(x-1)^6 + 6(x-1)^7 + 3(x-1)^8 \rangle$
228	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 6(x-1)^6 \rangle$
229	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 6(x-1)^5 + 3(x-1)^6 \rangle$

Table 5: Cyclic self-dual codes over \mathbb{Z}_9 of length 27 (continued)

No.	Ideals
230	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 6(x-1)^3 + 3(x-1)^4 + 3(x-1)^7 + 6(x-1)^8 \rangle$
231	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 6(x-1)^6 + 3(x-1)^7 + 6(x-1)^8 \rangle$
232	$\langle (x-1)^{18} + 6 + 6(x-1)^3 + 3(x-1)^5 + 3(x-1)^6 + 6(x-1)^8 \rangle$
233	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^3 + 6(x-1)^4 + 3(x-1)^6 + 3(x-1)^7 \rangle$
234	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^3 + 3(x-1)^4 + 3(x-1)^5 + 3(x-1)^6 \rangle$
235	$\langle (x-1)^{18} + 6 + 6(x-1)^3 + 3(x-1)^5 + 3(x-1)^6 + 6(x-1)^7 + 3(x-1)^8 \rangle$
236	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 6(x-1)^4 + 6(x-1)^6 + 6(x-1)^8 \rangle$
237	$\langle (x-1)^{18} + 6 + 3(x-1)^3 + 3(x-1)^6 \rangle$
238	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 3(x-1)^7 \rangle$
239	$\langle (x-1)^{18} + 6 + 6(x-1)^5 + 3(x-1)^6 + 6(x-1)^7 \rangle$
240	$\langle (x-1)^{18} + 6 + 3(x-1) + 3(x-1)^2 + 3(x-1)^4 + 3(x-1)^5 + 6(x-1)^7 + 6(x-1)^8 \rangle$
241	$\langle (x-1)^{18} + 6 + 6(x-1)^3 + 6(x-1)^6 \rangle$
242	$\langle (x-1)^{18} + 6 + 6(x-1) + 6(x-1)^2 + 3(x-1)^3 + 6(x-1)^4 + 6(x-1)^7 + 3(x-1)^8 \rangle$

Table 6: Cyclic self-dual codes over $GR(3^2, 2)$ of length 3

No.	Ideals	No.	Ideals
1	$\langle 3 \rangle$	2	$\langle (x-1)^2 + 6 \rangle$