

# Table III

August 18, 2022

**Table III: Links with torsion and  $b_3 \neq 0$  in the Johnson-Kollár list**

Weights	Polynomial	Type	d	$\mu$	$H_3(M, \mathbb{Z})$
(5,5,5,4,7)	$z_0^5 + z_0 z_1^4 + z_1 z_2^4 + z_2 z_3^5 + z_3 z_4^3$	Chain	25	864	$\mathbb{Z}^{44} \oplus \mathbb{Z}_5$
(9,9,4,8,7)	$z_0^4 + z_1^4 + z_2^9 + z_2 z_3^4 + z_3 z_4^4$	BP + Chain	36	1044	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{36})^3 \oplus \mathbb{Z}_4$
(7,7,7,5,10)	$z_0^5 + z_1^5 + z_2^5 + z_3^7 + z_3 z_4^3$	BP + Chain	35	960	$\mathbb{Z}^{36} \oplus (\mathbb{Z}_5)^3$
(8,10,5,7,11)	$z_0^5 + z_1^4 + z_1 z_2^6 + z_2 z_3^5 + z_3 z_4^3$	BP + Chain	40	1044	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_5)^3$
(9,9,15,5,8)	$z_0^5 + z_1^5 + z_2^3 + z_2 z_3^6 + z_3 z_4^5$	BP + Chain	45	1184	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{15})^2 \oplus (\mathbb{Z}_3)^2$
(5,9,9,12,11)	$z_0^9 + z_1^5 + z_1 z_2^4 + z_2 z_3^3 + z_3 z_4^3$	BP + Chain	45	1088	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_3)^4$
(13,5,10,11,27)	$z_0^5 + z_1^{13} + z_1 z_2^6 + z_2 z_3^5 + z_3 z_4^2$	BP + Chain	65	1824	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_5)^6$
(13,13,5,20,15)	$z_0^5 + z_1^5 + z_2^{13} + z_2 z_3^3 + z_3 z_4^3$	BP + Chain	65	1440	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{13})^4$
(16,32,5,15,13)	$z_0^5 + z_0 z_1^2 + z_1^{16} + z_2 z_3^5 + z_3 z_4^5$	Chain + Chain	80	2010	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{80})^2 \oplus (\mathbb{Z}_5)^3$
(18,36,15,5,17)	$z_0^5 + z_0 z_1^2 + z_2^6 + z_2 z_3^{15} + z_3 z_4^5$	Chain + Chain	90	2190	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{30})^2 \oplus (\mathbb{Z}_5)^3$
(5,15,19,38,19)	$z_0^{19} + z_0 z_1^6 + z_2^5 + z_2 z_3^2 + z_3 z_4^3$	Chain + Chain	95	2304	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_5)^6$
(47,24,5,19,25)	$z_4 z_0^2 + z_0 z_1^3 + z_1 z_2^{19} + z_2 z_3^6 + z_3 z_4^4$	Cycle	119	2736	$\mathbb{Z}^{22} \oplus \mathbb{Z}_{119}$
(25,25,5,19,27)	$z_0^4 + z_0 z_1^3 + z_1 z_2^{15} + z_2 z_3^5 + z_3 z_4^3$	Chain	100	1971	$\mathbb{Z}^{24} \oplus \mathbb{Z}_{20} \oplus (\mathbb{Z}_5)^2$
(24,30,57,29,5)	$z_0^6 + z_0 z_1^4 + z_1 z_2^2 + z_2 z_3^3 + z_3 z_4^{23}$	Chain	144	3197	$\mathbb{Z}^{22} \oplus \mathbb{Z}_{12}$
(5,30,24,63,29)	$z_0^{30} + z_1^5 + z_1 z_2^5 + z_2 z_3^2 + z_3 z_4^3$	BP + Chain	150	3509	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{50} \oplus (\mathbb{Z}_5)^3$
(28,28,35,5,45)	$z_0^5 + z_1^5 + z_2^4 + z_2 z_3^{21} + z_3 z_4^3$	BP + Chain	140	2736	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_4)^4$
(33,33,55,5,40)	$z_0^5 + z_1^5 + z_2^3 + z_2 z_3^{22} + z_3 z_4^4$	BP + Chain	165	3200	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_3)^4$
(43,43,5,35,90)	$z_0^5 + z_1^5 + z_2^{43} + z_2 z_3^6 + z_3 z_4^2$	BP + Chain	215	4800	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{43})^4$
(5,125,85,59,107)	$z_0^{76} + z_0 z_1^3 + z_1 z_2^3 + z_2 z_3^5 + z_3 z_4^3$	Chain	380	7371	$\mathbb{Z}^{24} \oplus \mathbb{Z}_{76}$
(5,76,103,141,61)	$z_0^{77} + z_0 z_1^5 + z_1 z_2^3 + z_2 z_3^2 + z_3 z_4^4$	Chain	385	7776	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{77}$
(108,81,193,5,127)	$z_1 z_0^4 + z_0 z_1^5 + z_4 z_2^2 + z_2 z_3^{64} + z_3 z_4^4$	Cycle + Cycle	513	10240	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{513} \oplus \mathbb{Z}_{27}$
(14,7,7,6,9)	$z_0^3 + z_1^6 + z_2^6 + z_3^7 + z_3 z_4^4$	BP + Chain	42	1100	$\mathbb{Z}^{32} \oplus (\mathbb{Z}_3)^2$
(10,6,13,11,7)	$z_1 z_0^4 + z_0 z_1^6 + z_4 z_2^3 + z_2 z_3^3 + z_3 z_4^5$	Cycle + Cycle	46	1080	$\mathbb{Z}^{22} \oplus \mathbb{Z}_{46} \oplus \mathbb{Z}_2$
(9,9,6,8,23)	$z_0^6 + z_1^6 + z_2^9 + z_2 z_3^6 + z_3 z_4^2$	BP + Chain	54	1550	$\mathbb{Z}^{32} \oplus \mathbb{Z}_{18} \oplus \mathbb{Z}_6 \oplus (\mathbb{Z}_3)^3$
(11,11,6,30,9)	$z_0^6 + z_1^6 + z_2^{11} + z_2 z_3^2 + z_3 z_4^4$	BP + Chain	66	1900	$\mathbb{Z}^{26} \oplus (\mathbb{Z}_{22})^2 \oplus (\mathbb{Z}_{11})^3$
(11,11,6,12,27)	$z_0^6 + z_1^6 + z_2^{11} + z_2 z_3^5 + z_3 z_4^2$	BP + Chain	66	1625	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{22})^5$

Weights	Polynomial	Type	d	$\mu$	$H_3(M, \mathbb{Z})$
(17,17,6,24,39)	$z_0^6 + z_1^6 + z_2^{17} + z_2 z_3^4 + z_3 z_4^2$	BP + Chain	102	2100	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_{34})^4 \oplus \mathbb{Z}_{17}$
(6,46,49,19,25)	$z_0^{24} + z_0 z_1^3 + z_1 z_2^2 + z_2 z_3^5 + z_3 z_4^5$	Chain	144	2975	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{48}$
(49,21,6,47,25)	$z_0^3 + z_1^7 + z_1 z_2^{21} + z_2 z_3^3 + z_3 z_4^4$	BP + Chain	147	2928	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_3)^3$
(87,29,29,6,24)	$z_0^2 + z_1^6 + z_2^6 + z_3^{29} + z_3 z_4^7$	BP + Chain	174	4375	$\mathbb{Z}^{28} \oplus (\mathbb{Z}_2)^7$
(78,6,57,59,35)	$z_0^3 + z_0 z_1^{26} + z_1 z_2^4 + z_2 z_3^3 + z_3 z_4^5$	Chain	234	3980	$\mathbb{Z}^{18} \oplus \mathbb{Z}_6 \oplus \mathbb{Z}_2$
(6,120,183,101,77)	$z_0^{81} + z_0 z_1^4 + z_1 z_2^2 + z_2 z_3^3 + z_3 z_4^5$	Chain	486	8180	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{162} \oplus (\mathbb{Z}_2)^3$
(9,27,7,14,7)	$z_0^7 + z_0 z_1^2 + z_2^9 + z_2 z_3^4 + z_3 z_4^7$	Chain + Chain	63	1792	$\mathbb{Z}^{48} \oplus (\mathbb{Z}_9)^2$
(8,12,9,13,7)	$z_0^6 + z_1^4 + z_1 z_2^4 + z_2 z_3^3 + z_3 z_4^5$	BP + Chain	48	1025	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{24}$
(8,36,9,7,13)	$z_0^9 + z_1^2 + z_1 z_2^4 + z_2 z_3^9 + z_3 z_4^5$	BP + Chain	72	2360	$\mathbb{Z}^{32} \oplus \mathbb{Z}_9$
(7,8,11,13,25)	$z_0^9 + z_0 z_1^7 + z_1 z_2^5 + z_2 z_3^4 + z_3 z_4^2$	Chain	63	1520	$\mathbb{Z}^{24} \oplus \mathbb{Z}_9$
(16,8,7,19,15)	$z_0^4 + z_0 z_1^6 + z_1 z_2^8 + z_2 z_3^3 + z_3 z_4^3$	Chain	64	1323	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{32} \oplus (\mathbb{Z}_8)^2$
(10,10,35,7,9)	$z_0^7 + z_1^7 + z_2^2 + z_2 z_3^5 + z_3 z_4^7$	BP + Chain	70	2196	$\mathbb{Z}^{30} \oplus \mathbb{Z}_{14} \oplus (\mathbb{Z}_2)^5$
(7,10,20,25,9)	$z_0^{10} + z_1^7 + z_1 z_2^3 + z_2 z_3^2 + z_3 z_4^5$	BP + Chain	70	1647	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_2)^3$
(9,18,7,37,11)	$z_0^9 + z_0 z_1^4 + z_1 z_2^9 + z_2 z_3^2 + z_3 z_4^4$	Chain	81	2240	$\mathbb{Z}^{24} \oplus \mathbb{Z}_{81} \oplus (\mathbb{Z}_9)^3$
(11,11,7,35,14)	$z_0^7 + z_1^7 + z_2^{11} + z_2 z_3^2 + z_3 z_4^3$	BP + Chain	77	1944	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{11})^6$
(15,12,16,11,7)	$z_0^4 + z_1^5 + z_1 z_2^3 + z_2 z_3^4 + z_3 z_4^7$	BP + Chain	60	1113	$\mathbb{Z}^{18} \oplus \mathbb{Z}_4$
(22,22,11,7,27)	$z_0^4 + z_0 z_1^3 + z_1 z_2^6 + z_2 z_3^{11} + z_3 z_4^3$	Chain	88	1647	$\mathbb{Z}^{24} \oplus \mathbb{Z}_8 \oplus (\mathbb{Z}_2)^2$
(25,15,12,7,17)	$z_0^3 + z_1^5 + z_1 z_2^5 + z_2 z_3^9 + z_3 z_4^4$	BP + Chain	75	1392	$\mathbb{Z}^{18} \oplus \mathbb{Z}_3$
(35,7,21,12,31)	$z_0^3 + z_1^{15} + z_2^5 + z_2 z_3^7 + z_3 z_4^3$	BP + Chain	105	2072	$\mathbb{Z}^{26} \oplus \mathbb{Z}_3$
(7,49,14,13,23)	$z_0^{15} + z_0 z_1^2 + z_1 z_2^4 + z_2 z_3^7 + z_3 z_4^4$	Chain	105	2624	$\mathbb{Z}^{30} \oplus \mathbb{Z}_{15}$
(25,15,31,23,7)	$z_0^4 + z_0 z_1^5 + z_4 z_2^3 + z_2 z_3^3 + z_3 z_4^{11}$	Chain + Cycle	100	1683	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{20}$
(40,16,43,31,7)	$z_1 z_0^3 + z_0 z_1^6 + z_4 z_2^3 + z_2 z_3^3 + z_3 z_4^{15}$	Cycle + Cycle	136	2430	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{136} \oplus \mathbb{Z}_8$
(7,28,17,51,17)	$z_0^{17} + z_0 z_1^4 + z_2^7 + z_2 z_3^2 + z_3 z_4^4$	Chain + Chain	119	2496	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_7)^4$
(20,60,35,7,19)	$z_0^7 + z_0 z_1^2 + z_2^4 + z_2 z_3^{15} + z_3 z_4^7$	Chain + Chain	140	2904	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_{28})^2 \oplus \mathbb{Z}_7$
(20,20,31,23,7)	$z_0^5 + z_1^5 + z_4 z_2^3 + z_2 z_3^3 + z_3 z_4^{11}$	BP + Cycle	100	1584	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{100} \oplus (\mathbb{Z}_{20})^3$
(25,25,35,7,84)	$z_0^7 + z_1^7 + z_2^5 + z_2 z_3^{20} + z_3 z_4^2$	BP + Chain	175	3744	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_5)^6$
(37,111,7,28,77)	$z_0^7 + z_0 z_1^2 + z_2^{37} + z_2 z_3^9 + z_3 z_4^3$	Chain + Chain	259	5616	$\mathbb{Z}^{36} \oplus (\mathbb{Z}_{37})^2$
(45,36,7,109,29)	$z_0^5 + z_0 z_1^5 + z_1 z_2^{27} + z_2 z_3^2 + z_3 z_4^4$	Chain	225	4704	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{45}$
(7,35,41,123,82)	$z_0^{41} + z_0 z_1^8 + z_2^7 + z_2 z_3^2 + z_3 z_4^2$	Chain + Chain	287	5760	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_7)^8$
(91,91,7,38,47)	$z_0^3 + z_0 z_1^2 + z_1 z_2^{26} + z_2 z_3^7 + z_3 z_4^5$	Chain	273	4520	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{39} \oplus \mathbb{Z}_{13}$
(40,80,7,91,63)	$z_0^7 + z_0 z_1^3 + z_2^{40} + z_2 z_3^3 + z_3 z_4^3$	Chain + Chain	280	4185	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_{40})^3$
(188,94,47,7,41)	$z_0^2 + z_0 z_1^2 + z_1 z_2^6 + z_2 z_3^{47} + z_3 z_4^9$	Chain	376	9045	$\mathbb{Z}^{26} \oplus \mathbb{Z}_4$
(46,46,161,7,63)	$z_0^7 + z_1^7 + z_2^2 + z_2 z_3^{23} + z_3 z_4^5$	BP + Chain	322	6660	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_2)^6$
(7,63,46,92,115)	$z_0^{46} + z_0 z_1^5 + z_2^7 + z_2 z_3^3 + z_3 z_4^2$	Chain + Chain	322	4995	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{14})^3$
(65,65,136,7,53)	$z_0^5 + z_1^5 + z_4 z_2^2 + z_2 z_3^{27} + z_3 z_4^6$	BP + Cycle	325	5184	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{325} \oplus (\mathbb{Z}_{65})^3$

Weights	Polynomial	Type	d	$\mu$	$H_3(M, \mathbb{Z})$
(65,195,7,56,133)	$z_0^7 + z_0 z_1^2 + z_2^{65} + z_2 z_3^8 + z_3 z_4^3$	Chain + Chain	455	8832	$\mathbb{Z}^{32} \oplus (\mathbb{Z}_{65})^2$
(108,81,253,65,7)	$z_1 z_0^4 + z_0 z_1^5 + z_4 z_2^2 + z_2 z_3^4 + z_3 z_4^{64}$	Cycle + Cycle	513	10240	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{513} \oplus \mathbb{Z}_{27}$
(92,276,69,7,109)	$z_0^6 + z_1^2 + z_1 z_2^4 + z_2 z_3^{69} + z_3 z_4^5$	BP + Chain	552	11075	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{24}$
(184,184,69,7,109)	$z_0^3 + z_1^3 + z_2^8 + z_2 z_3^{69} + z_3 z_4^5$	BP + Chain	552	8860	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_8)^2$
(205,205,123,76,7)	$z_0^3 + z_1^3 + z_2^5 + z_4 z_3^8 + z_3 z_4^{77}$	BP + Cycle	615	9856	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_5)^2$
(89,178,7,77,273)	$z_0^7 + z_0 z_1^3 + z_2^{89} + z_2 z_3^8 + z_3 z_4^2$	Chain + Chain	623	12000	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{89})^3$
(160,120,211,143,7)	$z_0^4 + z_0 z_1^4 + z_4 z_2^3 + z_2 z_3^3 + z_3 z_4^{71}$	Chain + Cycle	640	8307	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{160}$
(7,259,196,121,461)	$z_0^{149} + z_0 z_1^4 + z_1 z_2^4 + z_2 z_3^7 + z_3 z_4^2$	Chain	1043	18624	$\mathbb{Z}^{28} \oplus \mathbb{Z}_{149}$
(225,150,7,167,127)	$z_0^3 + z_0 z_1^3 + z_1 z_2^{75} + z_2 z_3^4 + z_3 z_4^4$	Chain	675	8768	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{225}$
(325,130,461,7,183)	$z_1 z_0^3 + z_0 z_1^6 + z_4 z_2^2 + z_2 z_3^{92} + z_3 z_4^6$	Cycle + Cycle	1105	19872	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{1105} \oplus \mathbb{Z}_{65}$
(12,8,15,9,17)	$z_0^5 + z_0 z_1^6 + z_2^4 + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	60	1118	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_4)^2$
(15,9,18,8,41)	$z_0^6 + z_1^{10} + z_2^5 + z_2 z_3^9 + z_3 z_4^2$	BP + Chain	90	2205	$\mathbb{Z}^{26} \oplus \mathbb{Z}_6 \oplus (\mathbb{Z}_3)^3$
(8,18,9,21,17)	$z_0^9 + z_1^4 + z_1 z_2^6 + z_2 z_3^3 + z_3 z_4^3$	BP + Chain	72	1320	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_3)^3$
(21,9,28,8,19)	$z_0^4 + z_0 z_1^7 + z_2^3 + z_2 z_3^7 + z_3 z_4^4$	Chain + Chain	84	1625	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{12}$
(8,10,35,15,13)	$z_0^{10} + z_1^8 + z_1 z_2^2 + z_2 z_3^3 + z_3 z_4^5$	BP + Chain	80	1809	$\mathbb{Z}^{24} \oplus \mathbb{Z}_4$
(13,8,55,35,15)	$z_1 z_0^9 + z_0 z_1^{14} + z_4 z_2^2 + z_2 z_3^2 + z_3 z_4^6$	Cycle + Cycle	125	3024	$\mathbb{Z}^{24} \oplus \mathbb{Z}_{25}$
(13,26,8,61,23)	$z_0^{10} + z_1^5 + z_1 z_2^{13} + z_2 z_3^2 + z_3 z_4^3$	BP + Chain	130	2889	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{130}(\oplus 13)^3$
(15,27,30,8,71)	$z_0^{10} + z_0 z_1^5 + z_2^5 + z_2 z_3^{15} + z_3 z_4^2$	Chain + Chain	150	3239	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{50} \oplus (\mathbb{Z}_5)^3$
(45,17,8,21,23)	$z_4 z_0^2 + z_0 z_1^4 + z_1 z_2^{12} + z_2 z_3^5 + z_3 z_4^4$	Cycle	113	1920	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{113}$
(85,17,34,8,27)	$z_0^2 + z_1^{10} + z_2^5 + z_2 z_3^{17} + z_3 z_4^6$	BP + Chain	170	3861	$\mathbb{Z}^{26} \oplus \mathbb{Z}_2$
(25,25,20,8,23)	$z_0^4 + z_1^4 + z_2^5 + z_2 z_3^{10} + z_3 z_4^4$	BP + Chain	100	1386	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{20})^2 \oplus \mathbb{Z}_5$
(27,27,27,20,8)	$z_0^4 + z_1^4 + z_2^4 + z_4 z_3^5 + z_3 z_4^{11}$	BP + Cycle	108	1485	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_4)^3$
(88,8,21,31,29)	$z_0^2 + z_0 z_1^{11} + z_1 z_2^8 + z_2 z_3^5 + z_3 z_4^5$	Chain	176	3675	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{16}$
(8,100,25,35,33)	$z_0^{25} + z_1^2 + z_1 z_2^4 + z_2 z_3^5 + z_3 z_4^5$	BP + Chain	200	4008	$\mathbb{Z}^{20} \oplus \mathbb{Z}_5$
(35,25,42,8,101)	$z_0^6 + z_0 z_1^7 + z_2^5 + z_2 z_3^{21} + z_3 z_4^2$	Chain + Chain	210	4033	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{10}$
(8,30,105,27,71)	$z_0^{30} + z_1^8 + z_1 z_2^2 + z_2 z_3^5 + z_3 z_4^3$	BP + Chain	240	4901	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{20}$
(8,36,27,39,35)	$z_0^{18} + z_1^4 + z_1 z_2^4 + z_2 z_3^3 + z_3 z_4^3$	BP + Chain	144	1853	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{24}$
(81,81,27,8,47)	$z_0^3 + z_0 z_1^2 + z_1 z_2^6 + z_2 z_3^{27} + z_3 z_4^5$	Chain	243	3920	$\mathbb{Z}^{18} \oplus \mathbb{Z}_9 \oplus \mathbb{Z}_3$
(45,45,97,8,31)	$z_0^5 + z_1^5 + z_4 z_2^2 + z_2 z_3^{16} + z_3 z_4^7$	BP + Cycle	225	3584	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{225} \oplus (\mathbb{Z}_{45})^3$
(38,113,8,37,89)	$z_0^8 + z_0 z_1^2 + z_2^{38} + z_2 z_3^8 + z_3 z_4^3$	Chain + Chain	304	5805	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{76}$
(39,91,8,38,137)	$z_0^8 + z_0 z_1^3 + z_2^{39} + z_2 z_3^8 + z_3 z_4^2$	Chain + Chain	312	5950	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{26} \oplus \mathbb{Z}_2$
(65,65,39,84,8)	$z_0^4 + z_0 z_1^3 + z_1 z_2^5 + z_4 z_3^3 + z_3 z_4^{22}$	Chain + Cycle	260	3366	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{20})^2 \oplus \mathbb{Z}_5$
(189,63,45,74,8)	$z_0^2 + z_0 z_1^3 + z_1 z_2^7 + z_4 z_3^5 + z_3 z_4^{38}$	Chain + Cycle	378	7030	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{14} \oplus \mathbb{Z}_2$
(75,45,100,8,73)	$z_0^4 + z_0 z_1^5 + z_2^3 + z_2 z_3^{25} + z_3 z_4^4$	Chain + Chain	300	3859	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{12}$
(205,82,8,67,49)	$z_0^2 + z_1^5 + z_1 z_2^{41} + z_2 z_3^6 + z_3 z_4^7$	BP + Chain	410	7581	$\mathbb{Z}^{18} \oplus \mathbb{Z}_2$

Weights	Polynomial	Type	d	$\mu$	$H_3(M, \mathbb{Z})$
(81,108,8,79,49)	$z_0^4 + z_1^3 + z_1 z_2^{27} + z_2 z_3^4 + z_3 z_4^5$	BP + Chain	324	4125	$\mathbb{Z}^{12} \oplus \mathbb{Z}_4$
(103,8,385,275,165)	$z_1 z_0^9 + z_0 z_1^{104} + z_4 z_2^2 + z_2 z_3^2 + z_3 z_4^4$	Cycle + Cycle	935	14976	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{17}$
(8,170,259,143,109)	$z_0^{86} + z_0 z_1^4 + z_1 z_2^2 + z_2 z_3^3 + z_3 z_4^5$	Chain	688	8685	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{172}$
(9,9,12,23,29)	$z_0^9 + z_0 z_1^8 + z_1 z_2^6 + z_2 z_3^3 + z_3 z_4^2$	Chain	81	1664	$\mathbb{Z}^{24} \oplus \mathbb{Z}_{27} \oplus (\mathbb{Z}_3)^7$
(10,10,15,9,17)	$z_0^6 + z_1^6 + z_2^4 + z_2 z_3^5 + z_3 z_4^3$	BP + Chain	60	1075	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{12} \oplus (\mathbb{Z}_2)^4$
(11,44,9,15,21)	$z_0^9 + z_0 z_1^2 + z_2^{11} + z_2 z_3^6 + z_3 z_4^4$	Chain + Chain	99	2080	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{11})^2$
(9,27,18,11,53)	$z_0^{13} + z_0 z_1^4 + z_1 z_2^5 + z_2 z_3^9 + z_3 z_4^2$	Chain	117	2560	$\mathbb{Z}^{36} \oplus \mathbb{Z}_{13}$
(14,35,12,9,15)	$z_0^6 + z_0 z_1^2 + z_2^7 + z_2 z_3^8 + z_3 z_4^5$	Chain + Chain	84	1610	$\mathbb{Z}^{24} \oplus \mathbb{Z}_7$
(9,15,12,29,35)	$z_0^{11} + z_0 z_1^6 + z_1 z_2^7 + z_2 z_3^3 + z_3 z_4^2$	Chain	99	1792	$\mathbb{Z}^{26} \oplus \mathbb{Z}_{11}$
(35,35,15,9,12)	$z_0^3 + z_1^3 + z_2^7 + z_2 z_3^{10} + z_3 z_4^8$	BP + Chain	105	1984	$\mathbb{Z}^{28} \oplus (\mathbb{Z}_7)^2$
(9,27,12,41,47)	$z_0^{15} + z_1^5 + z_1 z_2^9 + z_2 z_3^3 + z_3 z_4^2$	BP + Chain	135	2464	$\mathbb{Z}^{24} \oplus \mathbb{Z}_{15} \oplus (\mathbb{Z}_3)^3$
(14,28,63,9,13)	$z_0^9 + z_0 z_1^4 + z_2^2 + z_2 z_3^7 + z_3 z_4^9$	Chain + Chain	126	3164	$\mathbb{Z}^{24} \oplus \mathbb{Z}_{18} \oplus (\mathbb{Z}_2)^3$
(9,14,56,35,13)	$z_0^{14} + z_1^9 + z_1 z_2^2 + z_2 z_3^2 + z_3 z_4^7$	BP + Chain	126	2938	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_2)^2$
(27,9,17,16,13)	$z_0^3 + z_1^9 + z_4 z_2^4 + z_2 z_3^4 + z_3 z_4^5$	BP + Cycle	81	1280	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{27} \oplus \mathbb{Z}_9$
(41,9,13,20,31)	$z_4 z_0^2 + z_0 z_1^8 + z_1 z_2^8 + z_2 z_3^5 + z_3 z_4^3$	Cycle	113	1920	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{113}$
(44,23,9,13,25)	$z_4 z_0^2 + z_0 z_1^3 + z_1 z_2^{10} + z_2 z_3^8 + z_3 z_4^4$	Cycle	113	1920	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{113}$
(49,14,71,9,19)	$z_1 z_0^3 + z_0 z_1^8 + z_4 z_2^2 + z_2 z_3^{10} + z_3 z_4^8$	Cycle + Cycle	161	3840	$\mathbb{Z}^{22} \oplus \mathbb{Z}_{161} \oplus \mathbb{Z}_7$
(9,27,15,17,50)	$z_0^{13} + z_0 z_1^4 + z_1 z_2^6 + z_2 z_3^6 + z_3 z_4^2$	Chain	117	2144	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{39} \oplus (\mathbb{Z}_3)^3$
(81,27,9,17,29)	$z_0^2 + z_0 z_1^3 + z_1 z_2^{15} + z_2 z_3^9 + z_3 z_4^5$	Chain	162	3325	$\mathbb{Z}^{24} \oplus \mathbb{Z}_6$
(54,54,9,17,29)	$z_0^3 + z_0 z_1^2 + z_1 z_2^{12} + z_2 z_3^9 + z_3 z_4^5$	Chain	162	2660	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{18} \oplus \mathbb{Z}_6$
(9,63,18,20,89)	$z_0^{22} + z_0 z_1^3 + z_2^{11} + z_2 z_3^9 + z_3 z_4^2$	Chain + Chain	198	4905	$\mathbb{Z}^{42} \oplus \mathbb{Z}_{22}$
(9,21,56,19,85)	$z_0^{21} + z_1^9 + z_1 z_2^3 + z_2 z_3^7 + z_3 z_4^2$	BP + Chain	189	4160	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{63} \oplus \mathbb{Z}_3$
(20,25,30,9,37)	$z_0^6 + z_0 z_1^4 + z_2^4 + z_2 z_3^{10} + z_3 z_4^3$	Chain + Chain	120	1577	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{12}$
(20,80,45,27,9)	$z_0^9 + z_0 z_1^2 + z_2^4 + z_2 z_3^5 + z_3 z_4^{17}$	Chain + Chain	180	3230	$\mathbb{Z}^{32} \oplus (\mathbb{Z}_4)^2$
(22,88,9,21,59)	$z_0^9 + z_0 z_1^2 + z_2^{22} + z_2 z_3^9 + z_3 z_4^3$	Chain + Chain	198	4170	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_{66})^2 \oplus \mathbb{Z}_3$
(66,44,9,21,59)	$z_0^3 + z_0 z_1^3 + z_2^{22} + z_2 z_3^9 + z_3 z_4^3$	Chain + Chain	198	2919	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{22}$
(23,23,9,99,54)	$z_0^9 + z_1^9 + z_2^{23} + z_2 z_3^2 + z_3 z_4^2$	BP + Chain	207	4352	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_{23})^8$
(42,42,9,53,23)	$z_0^4 + z_0 z_1^3 + z_1 z_2^{14} + z_2 z_3^3 + z_3 z_4^5$	Chain	168	2175	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{56} \oplus (\mathbb{Z}_{14})^2$
(23,115,46,9,61)	$z_0^{11} + z_0 z_1^2 + z_1 z_2^3 + z_2 z_3^{23} + z_3 z_4^4$	Chain	253	4608	$\mathbb{Z}^{22} \oplus \mathbb{Z}_{11}$
(70,35,30,9,67)	$z_0^3 + z_1^6 + z_2^7 + z_2 z_3^{20} + z_3 z_4^3$	BP + Chain	210	2860	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{21})^2$
(38,152,9,111,33)	$z_0^9 + z_0 z_1^2 + z_2^{38} + z_2 z_3^3 + z_3 z_4^7$	Chain + Chain	342	7210	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{38})^2$
(85,34,127,9,35)	$z_1 z_0^3 + z_0 z_1^6 + z_4 z_2^2 + z_2 z_3^{18} + z_3 z_4^8$	Cycle + Cycle	289	5184	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{289} \oplus \mathbb{Z}_{17}$
(9,36,87,35,131)	$z_0^{33} + z_0 z_1^8 + z_1 z_2^3 + z_2 z_3^6 + z_3 z_4^2$	Chain	297	5312	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{99} \oplus (\mathbb{Z}_3)^7$
(9,153,35,70,49)	$z_0^{35} + z_0 z_1^2 + z_2^9 + z_2 z_3^4 + z_3 z_4^5$	Chain + Chain	315	5472	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_{45})^2 \oplus (\mathbb{Z}_5)^2$
(9,117,120,8,35)	$z_0^{40} + z_0 z_1^3 + z_2^3 + z_2 z_3^3 + z_3 z_4^8$	Chain + Chain	360	5265	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{24} \oplus (\mathbb{Z}_3)^2$

Weights	Polynomial	Type	d	$\mu$	$H_3(M, \mathbb{Z})$
(91,91,39,9,44)	$z_0^3 + z_1^3 + z_2^7 + z_2 z_3^{26} + z_3 z_4^6$	BP + Chain	273	3664	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{21})^2$
(141,47,47,39,9)	$z_0^2 + z_1^6 + z_2^6 + z_4 z_3^7 + z_3 z_4^{27}$	BP + Cycle	282	4725	$\mathbb{Z}^{22} \oplus \mathbb{Z}_2$
(94,94,47,39,9)	$z_0^3 + z_1^3 + z_2^6 + z_4 z_3^7 + z_3 z_4^{27}$	BP + Cycle	282	3780	$\mathbb{Z}^{14} \oplus (\mathbb{Z}_6)^2 \oplus \mathbb{Z}_3$
(9,147,50,40,205)	$z_0^{50} + z_0 z_1^3 + z_2^9 + z_2 z_3^{10} + z_3 z_4^2$	Chain + Chain	450	9898	$\mathbb{Z}^{22} \oplus \mathbb{Z}_6 \oplus \mathbb{Z}_2$
(50,200,45,9,147)	$z_0^9 + z_0 z_1^2 + z_2^{10} + z_2 z_3^{45} + z_3 z_4^3$	Chain + Chain	450	9090	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_{30})^2 \oplus (\mathbb{Z}_3)^7$
(50,200,9,63,129)	$z_0^9 + z_0 z_1^2 + z_2^{50} + z_2 z_3^7 + z_3 z_4^3$	Chain + Chain	450	7490	$\mathbb{Z}^{14} \oplus (\mathbb{Z}_{150})^2 \oplus (\mathbb{Z}_3)^5$
(62,124,155,9,85)	$z_0^7 + z_0 z_1^3 + z_1 z_2^2 + z_2 z_3^{31} + z_3 z_4^5$	Chain	434	5235	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{14} \oplus (\mathbb{Z}_2)^2$
(9,63,213,71,284)	$z_0^{71} + z_0 z_1^{10} + z_2^3 + z_2 z_3^6 + z_3 z_4^2$	Chain + Chain	639	12800	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_3)^{10}$
(9,267,90,80,365)	$z_0^{90} + z_0 z_1^3 + z_2^9 + z_2 z_3^9 + z_3 z_4^2$	Chain + Chain	810	16109	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{54} \oplus (\mathbb{Z}_3)^7$
(235,470,94,9,133)	$z_0^4 + z_1^2 + z_1 z_2^5 + z_2 z_3^{94} + z_3 z_4^7$	BP + Chain	940	16947	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{20}$
(100,350,9,113,229)	$z_0^8 + z_0 z_1^2 + z_1 z_2^{50} + z_2 z_3^7 + z_3 z_4^3$	Chain	800	11991	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{400}$
(101,404,9,225,171)	$z_0^9 + z_0 z_1^2 + z_2^{101} + z_2 z_3^4 + z_3 z_4^4$	Chain + Chain	909	13120	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{101})^2$
(119,238,365,9,103)	$z_0^7 + z_0 z_1^3 + z_4 z_2^2 + z_2 z_3^{52} + z_3 z_4^8$	Chain + Cycle	833	12480	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{833} \oplus (\mathbb{Z}_{119})^2$
(381,9,126,113,515)	$z_0^3 + z_1^{127} + z_1 z_2^9 + z_2 z_3^9 + z_3 z_4^2$	BP + Chain	1143	22608	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_3)^9$
(9,142,229,529,379)	$z_0^{143} + z_0 z_1^9 + z_1 z_2^5 + z_2 z_3^2 + z_3 z_4^2$	Chain	1287	18160	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{143}$
(9,174,467,277,649)	$z_0^{157} + z_0 z_1^9 + z_1 z_2^3 + z_2 z_3^4 + z_3 z_4^2$	Chain	1575	22224	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{525} \oplus (\mathbb{Z}_3)^2$
(9,291,488,181,787)	$z_0^{195} + z_0 z_1^6 + z_1 z_2^3 + z_2 z_3^7 + z_3 z_4^2$	Chain	1755	27104	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{585} \oplus \mathbb{Z}_3$
(45,10,67,13,11)	$z_1 z_0^3 + z_0 z_1^{10} + z_4 z_2^2 + z_2 z_3^6 + z_3 z_4^{12}$	Cycle + Cycle	145	4320	$\mathbb{Z}^{28} \oplus \mathbb{Z}_{145} \oplus \mathbb{Z}_5$
(10,14,63,11,43)	$z_0^{14} + z_1^{10} + z_1 z_2^2 + z_2 z_3^7 + z_3 z_4^3$	BP + Chain	140	3783	$\mathbb{Z}^{26} \oplus \mathbb{Z}_{28}$
(65,13,13,10,30)	$z_0^2 + z_1^{10} + z_2^{10} + z_3^{13} + z_3 z_4^4$	BP + Chain	130	3240	$\mathbb{Z}^{32} \oplus (\mathbb{Z}_2)^4$
(13,13,10,60,35)	$z_0^{10} + z_1^{10} + z_2^{13} + z_2 z_3^2 + z_3 z_4^2$	BP + Chain	130	3078	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_{26})^2 \oplus (\mathbb{Z}_{13})^7$
(17,51,10,16,77)	$z_0^{10} + z_0 z_1^3 + z_2^{17} + z_2 z_3^{10} + z_3 z_4^2$	Chain + Chain	170	3906	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{34})^2 \oplus \mathbb{Z}_{17}$
(17,17,17,25,10)	$z_0^5 + z_1^5 + z_2^5 + z_4 z_3^3 + z_3 z_4^6$	BP + Cycle	85	1152	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_5)^2$
(17,85,17,10,59)	$z_0^{11} + z_0 z_1^2 + z_1 z_2^6 + z_2 z_3^{17} + z_3 z_4^3$	Chain	187	4608	$\mathbb{Z}^{34} \oplus \mathbb{Z}_{11}$
(19,57,10,20,85)	$z_0^{10} + z_0 z_1^3 + z_2^{19} + z_2 z_3^9 + z_3 z_4^2$	Chain + Chain	190	3969	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_{38})^3 \oplus (\mathbb{Z}_2)^6$
(21,21,35,10,19)	$z_0^5 + z_1^5 + z_2^3 + z_2 z_3^7 + z_3 z_4^5$	BP + Chain	105	1376	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{15} \oplus (\mathbb{Z}_3)^3$
(80,10,25,27,19)	$z_0^2 + z_0 z_1^8 + z_1 z_2^6 + z_2 z_3^5 + z_3 z_4^7$	Chain	160	2961	$\mathbb{Z}^{20} \oplus \mathbb{Z}_4$
(85,10,32,23,21)	$z_0^2 + z_1^{17} + z_1 z_2^5 + z_2 z_3^6 + z_3 z_4^7$	BP + Chain	170	3129	$\mathbb{Z}^{18} \oplus \mathbb{Z}_2$
(55,22,99,10,35)	$z_0^4 + z_1^{10} + z_1 z_2^2 + z_3^{22} + z_3 z_4^6$	BP + Chain + Chain	220	3663	$\mathbb{Z}^{24} \oplus \mathbb{Z}_4$
(29,87,10,140,25)	$z_0^{10} + z_0 z_1^3 + z_2^{29} + z_2 z_3^2 + z_3 z_4^6$	Chain + Chain	290	6678	$\mathbb{Z}^{224} \oplus (\mathbb{Z}_{58})^2 \oplus \mathbb{Z}_{29}$
(25,10,63,131,97)	$z_0^{13} + z_0 z_1^{30} + z_1 z_2^5 + z_2 z_3^2 + z_3 z_4^2$	Chain	325	5472	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{65} \oplus (\mathbb{Z}_5)^5$
(10,160,33,27,101)	$z_0^{33} + z_0 z_1^2 + z_2^{10} + z_2 z_3^{11} + z_3 z_4^3$	Chain + Chain	330	7786	$\mathbb{Z}^{22} \oplus \mathbb{Z}_{30} \oplus \mathbb{Z}_{10}$
(29,87,10,40,125)	$z_0^{10} + z_0 z_1^3 + z_2^{29} + z_2 z_3^7 + z_3 z_4^2$	Chain + Chain	290	4851	$\mathbb{Z}^{14} \oplus (\mathbb{Z}_{58})^3 \oplus (\mathbb{Z}_2)^4$
(10,68,175,35,63)	$z_0^{35} + z_0 z_1^5 + z_2^2 + z_2 z_3^5 + z_3 z_4^5$	Chain + Chain	350	5781	$\mathbb{Z}^{20} \oplus \mathbb{Z}_2$
(95,190,10,37,49)	$z_0^4 + z_1^2 + z_1 z_2^{19} + z_2 z_3^{10} + z_3 z_4^7$	BP + Chain	380	6951	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{76}$

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(39,117,130,10,95)	$z_0^{10} + z_0 z_1^3 + z_2^3 + z_2 z_3^{26} + z_3 z_4^4$	Chain + Chain	390	4956	$\mathbb{Z}^{14} \oplus (\mathbb{Z}_6)^2 \oplus \mathbb{Z}_3$
(10,40,245,49,147)	$z_0^{49} + z_0 z_1^{12} + z_2^2 + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	490	11340	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_2)^{12}$
(10,60,185,49,127)	$z_0^{43} + z_0 z_1^7 + z_1 z_2^2 + z_2 z_3^5 + z_3 z_4^3$	Chain	430	6363	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{86} \oplus (\mathbb{Z}_2)^6$
(49,147,10,80,205)	$z_0^{10} + z_0 z_1^3 + z_2^{49} + z_2 z_3^6 + z_3 z_4^2$	Chain + Chain	490	7182	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{98})^3 \oplus (\mathbb{Z}_2)^3$
(407,237,161,10,67)	$z_4 z_0^2 + z_0 z_1^2 + z_1 z_2^4 + z_2 z_3^{72} + z_3 z_4^{13}$	Cycle	881	14976	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{881}$
(68,153,10,335,115)	$z_0^{10} + z_0 z_1^4 + z_2^{68} + z_2 z_3^2 + z_3 z_4^3$	Chain + Chain	680	10509	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{68}$
(10,164,333,71,253)	$z_0^{83} + z_0 z_1^5 + z_1 z_2^2 + z_2 z_3^7 + z_3 z_4^3$	Chain	830	12117	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{166}$
(75,10,163,331,247)	$z_0^{11} + z_0 z_1^{75} + z_1 z_2^5 + z_2 z_3^2 + z_3 z_4^2$	Chain	825	11560	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{55} \oplus (\mathbb{Z}_5)^4$
(10,80,445,89,267)	$z_0^{89} + z_0 z_1^{11} + z_2^2 + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	890	18711	$\mathbb{Z}^{22} \oplus (\mathbb{Z}_2)^{11}$
(495,165,10,98,223)	$z_0^2 + z_1^6 + z_2^{99} + z_2 z_3^{10} + z_3 z_4^4$	BP + Chain	990	15340	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{66} \oplus \mathbb{Z}_2$
(10,540,275,163,103)	$z_0^{109} + z_0 z_1^2 + z_1 z_2^2 + z_2 z_3^5 + z_3 z_4^9$	Chain	1090	17766	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{218} \oplus \mathbb{Z}_2$
(605,10,120,109,367)	$z_0^2 + z_1^{121} + z_1 z_2^{10} + z_2 z_3^{10} + z_3 z_4^3$	BP + Chain	990	15340	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{66} \oplus \mathbb{Z}_2$
(187,561,119,10,433)	$z_0^7 + z_0 z_1^2 + z_2^{11} + z_2 z_3^{119} + z_3 z_4^3$	Chain + Chain	1309	21024	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_{11})^2$
(142,639,10,235,395)	$z_0^{10} + z_0 z_1^2 + z_2^{142} + z_2 z_3^6 + z_3 z_4^3$	Chain + Chain	1420	20295	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{284}$
(255,425,10,152,689)	$z_0^6 + z_0 z_1^3 + z_2^{153} + z_2 z_3^{10} + z_3 z_4^2$	Chain + Chain	1530	21866	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{102} \oplus \mathbb{Z}_2$
(10,240,605,169,427)	$z_0^{145} + z_0 z_1^6 + z_1 z_2^2 + z_2 z_3^5 + z_3 z_4^3$	Chain	1450	18414	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{290} \oplus (\mathbb{Z}_2)^5$
(623,267,801,169,10)	$z_0^3 + z_1^7 + z_1 z_2^2 + z_4 z_3^{11} + z_3 z_4^{170}$	BP + Chain + Cycle	1869	29920	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_3)^2$
(13,65,11,44,11)	$z_0^{11} + z_0 z_1^2 + z_2^{13} + z_2 z_3^3 + z_3 z_4^9$	Chain + Chain	143	3888	$\mathbb{Z}^{48} \oplus (\mathbb{Z}_{13})^2$
(33,11,11,27,18)	$z_0^3 + z_1^9 + z_2^9 + z_4 z_3^3 + z_3 z_4^4$	BP + Cycle	99	1536	$\mathbb{Z}^{28} \oplus (\mathbb{Z}_3)^2$
(14,70,11,13,47)	$z_0^{11} + z_0 z_1^2 + z_2^{14} + z_2 z_3^{11} + z_3 z_4^3$	Chain + Chain	154	3852	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{14})^2$
(13,52,79,15,11)	$z_0^{13} + z_0 z_1^3 + z_4 z_2^2 + z_2 z_3^6 + z_3 z_4^{14}$	Chain + Cycle	169	4536	$\mathbb{Z}^{24} \oplus \mathbb{Z}_{169} \oplus (\mathbb{Z}_{13})^2$
(48,13,25,11,17)	$z_4 z_0^2 + z_0 z_1^5 + z_1 z_2^4 + z_2 z_3^8 + z_3 z_4^6$	Cycle	113	1920	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{113}$
(13,65,11,33,22)	$z_0^{11} + z_0 z_1^2 + z_2^{13} + z_2 z_3^4 + z_3 z_4^5$	Chain + Chain	143	2640	$\mathbb{Z}^{32} \oplus (\mathbb{Z}_{13})^2$
(78,26,13,11,29)	$z_0^2 + z_0 z_1^3 + z_1 z_2^{10} + z_2 z_3^{13} + z_3 z_4^5$	Chain	156	3175	$\mathbb{Z}^{24} \oplus \mathbb{Z}_4$
(52,52,13,11,29)	$z_0^3 + z_0 z_1^2 + z_1 z_2^8 + z_2 z_3^{13} + z_3 z_4^5$	Chain	156	2540	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{12} \oplus \mathbb{Z}_4$
(49,14,73,11,15)	$z_1 z_0^3 + z_0 z_1^8 + z_4 z_2^2 + z_2 z_3^8 + z_3 z_4^{10}$	Cycle + Cycle	161	3840	$\mathbb{Z}^{22} \oplus \mathbb{Z}_{161} \oplus \mathbb{Z}_7$
(63,14,16,11,23)	$z_0^2 + z_1^9 + z_1 z_2^7 + z_2 z_3^{10} + z_3 z_4^5$	BP + Chain	126	2575	$\mathbb{Z}^{20} \oplus \mathbb{Z}_2$
(15,30,33,11,77)	$z_0^{11} + z_0 z_1^5 + z_2^5 + z_2 z_3^{12} + z_3 z_4^2$	Chain + Chain	165	2880	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_5)^5$
(77,11,21,105,18)	$z_0^3 + z_1^{21} + z_2^{11} + z_2 z_3^2 + z_3 z_4^7$	BP + Chain	231	5680	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{11})^2$
(11,66,19,95,19)	$z_0^{19} + z_0 z_1^3 + z_2^{11} + z_2 z_3^2 + z_3 z_4^6$	Chain + Chain	209	4680	$\mathbb{Z}^{30} \oplus (\mathbb{Z}_{11})^3$
(11,121,78,25,19)	$z_0^{23} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^7 + z_3 z_4^{12}$	Chain + Cycle	253	6048	$\mathbb{Z}^{22} \oplus \mathbb{Z}_{253} \oplus \mathbb{Z}_{11}$
(24,120,33,77,11)	$z_0^{11} + z_0 z_1^2 + z_2^8 + z_2 z_3^3 + z_3 z_4^{17}$	Chain + Chain	264	4692	$\mathbb{Z}^{32} \oplus (\mathbb{Z}_8)^2$
(27,135,99,11,26)	$z_0^{11} + z_0 z_1^2 + z_2^3 + z_2 z_3^{18} + z_3 z_4^{11}$	Chain + Chain	297	6504	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{33})^2$
(26,52,143,11,55)	$z_0^{11} + z_0 z_1^5 + z_2^2 + z_2 z_3^{13} + z_3 z_4^5$	Chain + Chain	286	4725	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_2)^5$
(11,143,27,27,90)	$z_0^{27} + z_0 z_1^2 + z_2^{11} + z_2 z_3^{10} + z_3 z_4^3$	Chain + Chain	297	6440	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{33})^2 \oplus (\mathbb{Z}_3)^8$

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(45,36,27,11,107)	$z_0^5 + z_0 z_1^5 + z_1 z_2^7 + z_2 z_3^{18} + z_3 z_4^2$	Chain	225	3304	$\mathbb{Z}^{20} \oplus \mathbb{Z}_5$
(27,45,39,41,11)	$z_0^6 + z_0 z_1^3 + z_1 z_2^3 + z_2 z_3^3 + z_3 z_4^{11}$	Chain	162	1661	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{18}$
(65,65,157,28,11)	$z_0^5 + z_1^5 + z_4 z_2^2 + z_2 z_3^6 + z_3 z_4^{27}$	BP + Cycle	325	5184	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{325} \oplus (\mathbb{Z}_{65})^3$
(11,77,29,145,58)	$z_0^{29} + z_0 z_1^4 + z_2^{11} + z_2 z_3^2 + z_3 z_4^3$	Chain + Chain	319	4752	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_{11})^4$
(29,58,11,183,97)	$z_0^{13} + z_0 z_1^6 + z_1 z_2^{29} + z_2 z_3^2 + z_3 z_4^2$	Chain	377	6720	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{377} \oplus (\mathbb{Z}_{29})^5$
(32,144,11,103,31)	$z_0^{10} + z_0 z_1^2 + z_1 z_2^{16} + z_2 z_3^3 + z_3 z_4^7$	Chain	320	6069	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{160}$
(89,89,47,11,32)	$z_0^3 + z_1^3 + z_4 z_2^5 + z_2 z_3^{20} + z_3 z_4^8$	BP + Cycle	267	3200	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{267} \oplus \mathbb{Z}_{89}$
(38,38,171,11,123)	$z_0^{10} + z_0 z_1^9 + z_1 z_2^2 + z_2 z_3^{19} + z_3 z_4^3$	Chain	380	6939	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{20} \oplus (\mathbb{Z}_2)^8$
(147,42,199,11,43)	$z_0^3 + z_0 z_1^7 + z_4 z_2^2 + z_2 z_3^{22} + z_3 z_4^{10}$	Chain + Cycle	441	8360	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{63}$
(63,126,199,11,43)	$z_0^7 + z_0 z_1^3 + z_4 z_2^2 + z_2 z_3^{22} + z_3 z_4^{10}$	Chain + Cycle	441	6600	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{441} \oplus (\mathbb{Z}_{63})^2$
(64,64,69,11,49)	$z_0^4 + z_1^4 + z_4 z_2^3 + z_2 z_3^{17} + z_3 z_4^5$	BP + Cycle	256	2295	$\mathbb{Z}^6 \oplus \mathbb{Z}_{256} \oplus (\mathbb{Z}_{64})^2$
(11,88,49,245,147)	$z_0^{49} + z_0 z_1^6 + z_2^{11} + z_2 z_3^2 + z_3 z_4^2$	Chain + Chain	539	7872	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{11})^6$
(54,180,297,11,53)	$z_0^{11} + z_0 z_1^3 + z_2^2 + z_2 z_3^{27} + z_3 z_4^{11}$	Chain + Chain	594	12443	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{22}$
(11,341,63,210,69)	$z_0^{63} + z_0 z_1^2 + z_2^{11} + z_2 z_3^3 + z_3 z_4^7$	Chain + Chain	693	13312	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{77} \oplus \mathbb{Z}_{11}$
(79,395,11,143,242)	$z_0^{11} + z_0 z_1^2 + z_2^{79} + z_2 z_3^6 + z_3 z_4^3$	Chain + Chain	869	12312	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{79})^2$
(87,348,145,11,193)	$z_0^9 + z_0 z_1^2 + z_1 z_2^3 + z_2 z_3^{58} + z_3 z_4^4$	Chain	783	9440	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{27} \oplus \mathbb{Z}_3$
(87,145,11,473,242)	$z_0^{11} + z_0 z_1^6 + z_2^{87} + z_2 z_3^2 + z_3 z_4^2$	Chain + Chain	957	14560	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_{29})^2$
(325,130,547,93,11)	$z_1 z_0^3 + z_0 z_1^6 + z_4 z_2^2 + z_2 z_3^6 + z_3 z_4^{92}$	Cycle + Cycle	1105	19872	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{1105} \oplus \mathbb{Z}_{65}$
(539,11,97,109,323)	$z_0^2 + z_0 z_1^{49} + z_1 z_2^{11} + z_2 z_3^9 + z_3 z_4^3$	Chain	1078	20385	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{22}$
(770,154,11,139,467)	$z_0^2 + z_0 z_1^5 + z_1 z_2^{126} + z_2 z_3^{11} + z_3 z_4^3$	Chain	1540	28971	$\mathbb{Z}^{26} \oplus \mathbb{Z}_{28}$
(308,616,11,139,467)	$z_0^5 + z_0 z_1^2 + z_1 z_2^{84} + z_2 z_3^{11} + z_3 z_4^3$	Chain	1540	19314	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{140} \oplus \mathbb{Z}_{28}$
(145,725,319,11,396)	$z_0^{11} + z_0 z_1^2 + z_2^5 + z_2 z_3^{116} + z_3 z_4^4$	Chain + Chain	1595	20928	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_5)^2$
(156,780,429,11,341)	$z_0^{11} + z_0 z_1^2 + z_2^4 + z_2 z_3^{117} + z_3 z_4^5$	Chain + Chain	1716	22500	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_4)^2$
(567,189,766,11,169)	$z_0^3 + z_1^9 + z_4 z_2^2 + z_2 z_3^{85} + z_3 z_4^{10}$	BP + Cycle	1701	27200	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{567} \oplus \mathbb{Z}_{189}$
(11,209,1155,687,458)	$z_0^{229} + z_0 z_1^{12} + z_1 z_2^2 + z_4 z_3^3 + z_3 z_4^4$	Chain + Cycle	2519	35712	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{229})^2$
(11,1331,297,216,819)	$z_0^{243} + z_0 z_1^2 + z_2^9 + z_2 z_3^{11} + z_3 z_4^3$	Chain + Chain	2673	50264	$\mathbb{Z}^{26} \oplus \mathbb{Z}_{27}$
(11,1111,418,266,1539)	$z_0^{304} + z_0 z_1^3 + z_2^8 + z_2 z_3^{11} + z_3 z_4^2$	Chain + Chain	3344	57855	$\mathbb{Z}^{30} \oplus \mathbb{Z}_{16}$
(1529,11,572,365,2111)	$z_0^3 + z_0 z_1^{278} + z_1 z_2^8 + z_2 z_3^{11} + z_3 z_4^2$	Chain	4587	79232	$\mathbb{Z}^{30} \oplus \mathbb{Z}_3$
(2629,11,583,425,1611)	$z_0^2 + z_0 z_1^{239} + z_1 z_2^9 + z_2 z_3^{11} + z_3 z_4^3$	Chain	5258	98469	$\mathbb{Z}^{26} \oplus \mathbb{Z}_2$
(15,12,65,13,91)	$z_0^{13} + z_0 z_1^{15} + z_2^3 + z_2 z_3^{10} + z_3 z_4^2$	Chain + Chain	195	5856	$\mathbb{Z}^{30} \oplus (\mathbb{Z}_3)^3$
(45,27,12,14,83)	$z_0^4 + z_0 z_1^5 + z_2^{15} + z_2 z_3^{12} + z_3 z_4^2$	Chain + Chain	180	3298	$\mathbb{Z}^{20} \oplus \mathbb{Z}_6 \oplus \mathbb{Z}_2$
(12,126,33,77,17)	$z_0^{22} + z_0 z_1^2 + z_2^8 + z_2 z_3^3 + z_3 z_4^{11}$	Chain + Chain	264	5681	$\mathbb{Z}^{22} \oplus \mathbb{Z}_{44}$
(87,29,29,18,12)	$z_0^2 + z_1^6 + z_2^6 + z_4 z_3^9 + z_3 z_4^{13}$	BP + Cycle	174	2925	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_2)^5$
(35,21,147,12,101)	$z_0^9 + z_1^{15} + z_1 z_2^2 + z_2 z_3^{14} + z_3 z_4^3$	BP + Chain	315	6848	$\mathbb{Z}^{26} \oplus \mathbb{Z}_3$
(12,80,63,21,77)	$z_0^{21} + z_0 z_1^3 + z_2^4 + z_2 z_3^9 + z_3 z_4^3$	Chain + Chain	252	3225	$\mathbb{Z}^{18} \oplus \mathbb{Z}_4$

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(89,89,51,27,12)	$z_0^3 + z_1^3 + z_4 z_2^5 + z_2 z_3^8 + z_3 z_4^{20}$	BP + Cycle	267	3200	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_{89})^2$
(12,30,75,35,29)	$z_0^{15} + z_1^6 + z_1 z_2^2 + z_2 z_3^3 + z_3 z_4^5$	BP + Chain	180	2114	$\mathbb{Z}^{12} \oplus \mathbb{Z}_6 \oplus \mathbb{Z}_2$
(35,35,30,12,99)	$z_0^6 + z_1^6 + z_2^7 + z_2 z_3^{15} + z_3 z_4^2$	BP + Chain	210	2775	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{14})^3 \oplus (\mathbb{Z}_7)^2$
(221,34,12,43,133)	$z_0^2 + z_1^{13} + z_1 z_2^{34} + z_2 z_3^{10} + z_3 z_4^3$	BP + Chain	442	9270	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_2)^2$
(105,35,63,12,101)	$z_0^3 + z_1^9 + z_2^5 + z_2 z_3^{21} + z_3 z_4^3$	BP + Chain	315	3424	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_5)^2$
(145,145,87,12,47)	$z_0^3 + z_1^3 + z_2^5 + z_2 z_3^{29} + z_3 z_4^9$	BP + Chain	435	4656	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{15} \oplus \mathbb{Z}_5$
(195,65,65,54,12)	$z_0^2 + z_1^6 + z_2^6 + z_4 z_3^7 + z_3 z_4^{28}$	BP + Cycle	390	4900	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_2)^4$
(12,164,63,147,119)	$z_0^{42} + z_0 z_1^3 + z_2^8 + z_2 z_3^3 + z_3 z_4^3$	Chain + Chain	504	4675	$\mathbb{Z}^{12} \oplus \mathbb{Z}_8$
(176,12,129,133,79)	$z_0^3 + z_1^{44} + z_1 z_2^4 + z_2 z_3^3 + z_3 z_4^5$	BP + Chain	528	4490	$\mathbb{Z}^8 \oplus \mathbb{Z}_3$
(12,270,411,227,173)	$z_0^{91} + z_0 z_1^4 + z_1 z_2^2 + z_2 z_3^3 + z_3 z_4^5$	Chain	1092	9190	$\mathbb{Z}^8 \oplus \mathbb{Z}_{182} \oplus \mathbb{Z}_2$
(65,13,13,15,90)	$z_0^3 + z_1^{15} + z_2^{15} + z_3^{13} + z_3 z_4^2$	BP + Chain	195	5488	$\mathbb{Z}^{52} \oplus (\mathbb{Z}_3)^2$
(75,15,106,17,13)	$z_0^3 + z_1^{15} + z_4 z_2^2 + z_2 z_3^7 + z_3 z_4^{16}$	BP + Cycle	225	6272	$\mathbb{Z}^{26} \oplus \mathbb{Z}_{45} \oplus \mathbb{Z}_{15}$
(13,91,15,18,59)	$z_0^{15} + z_0 z_1^2 + z_2^{13} + z_2 z_3^{10} + z_3 z_4^3$	Chain + Chain	195	4352	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{39})^2$
(92,46,19,15,13)	$z_0^2 + z_1^4 + z_4 z_2^9 + z_2 z_3^{11} + z_3 z_4^{13}$	BP + Cycle	184	3861	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{92}$
(45,45,106,17,13)	$z_0^5 + z_1^5 + z_4 z_2^2 + z_2 z_3^7 + z_3 z_4^{16}$	BP + Cycle	225	3584	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{225} \oplus (\mathbb{Z}_{45})^3$
(17,136,69,55,13)	$z_0^{17} + z_0 z_1^2 + z_4 z_2^4 + z_2 z_3^4 + z_3 z_4^{18}$	Chain + Cycle	289	5184	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{289} \oplus \mathbb{Z}_{17}$
(93,31,124,19,13)	$z_0^3 + z_0 z_1^6 + z_1 z_2^2 + z_4 z_3^{14} + z_3 z_4^{20}$	Chain + Cycle	279	5600	$\mathbb{Z}^{22} \oplus \mathbb{Z}_3$
(93,93,62,19,13)	$z_0^3 + z_0 z_1^2 + z_1 z_2^3 + z_4 z_3^{14} + z_3 z_4^{20}$	Chain + Cycle	279	3920	$\mathbb{Z}^{14} \oplus \mathbb{Z}_9 \oplus \mathbb{Z}_3$
(103,13,20,71,27)	$z_4 z_0^2 + z_0 z_1^{10} + z_1 z_2^{11} + z_2 z_3^3 + z_3 z_4^6$	Cycle	233	3960	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{233}$
(22,88,143,13,21)	$z_0^{13} + z_0 z_1^3 + z_2^2 + z_2 z_3^{11} + z_3 z_4^{13}$	Chain + Chain	286	7155	$\mathbb{Z}^{24} \oplus \mathbb{Z}_{26} \oplus (\mathbb{Z}_2)^2$
(13,65,21,126,49)	$z_0^{21} + z_0 z_1^4 + z_2^{13} + z_2 z_3^2 + z_3 z_4^3$	Chain + Chain	273	4096	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{39})^2 \oplus (\mathbb{Z}_{13})^2$
(21,84,91,13,65)	$z_0^{13} + z_0 z_1^3 + z_2^3 + z_2 z_3^{14} + z_3 z_4^4$	Chain + Chain	273	3456	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_3)^3$
(161,23,23,13,103)	$z_0^2 + z_0 z_1^7 + z_1 z_2^{13} + z_2 z_3^{23} + z_3 z_4^3$	Chain	322	8541	$\mathbb{Z}^{38} \oplus \mathbb{Z}_2$
(161,23,13,98,28)	$z_0^2 + z_0 z_1^7 + z_1 z_2^{23} + z_4 z_3^3 + z_3 z_4^8$	Chain + Cycle	322	7416	$\mathbb{Z}^{22} \oplus \mathbb{Z}_{46} \oplus \mathbb{Z}_2$
(46,138,23,13,103)	$z_0^7 + z_0 z_1^2 + z_1 z_2^8 + z_2 z_3^{23} + z_3 z_4^3$	Chain	322	5256	$\mathbb{Z}^{22} \oplus \mathbb{Z}_{14} \oplus \mathbb{Z}_2$
(23,69,13,143,52)	$z_0^{13} + z_0 z_1^4 + z_2^{23} + z_2 z_3^2 + z_3 z_4^3$	Chain + Chain	299	4560	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_{23})^4$
(55,110,177,13,31)	$z_0^7 + z_0 z_1^3 + z_4 z_2^2 + z_2 z_3^{16} + z_3 z_4^{12}$	Chain + Cycle	385	5760	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{385} \oplus (\mathbb{Z}_{55})^2$
(33,33,143,13,208)	$z_0^{13} + z_1^{13} + z_2^3 + z_2 z_3^{22} + z_3 z_4^2$	BP + Chain	429	9792	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_3)^{12}$
(34,136,221,13,39)	$z_0^{13} + z_0 z_1^3 + z_2^2 + z_2 z_3^{17} + z_3 z_4^{11}$	Chain + Chain	442	9207	$\mathbb{Z}^{30} \oplus (\mathbb{Z}_2)^3$
(64,64,81,35,13)	$z_0^4 + z_1^4 + z_4 z_2^3 + z_2 z_3^5 + z_3 z_4^{17}$	BP + Cycle	256	2295	$\mathbb{Z}^6 \oplus \mathbb{Z}_{256} \oplus (\mathbb{Z}_{64})^2$
(35,70,13,221,117)	$z_0^{13} + z_0 z_1^6 + z_2^{35} + z_2 z_3^2 + z_3 z_4^2$	Chain + Chain	455	6864	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{35})^6$
(46,46,299,13,195)	$z_0^{13} + z_1^{13} + z_2^2 + z_2 z_3^{23} + z_3 z_4^3$	BP + Chain	598	13392	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_2)^{12}$
(13,195,46,92,253)	$z_0^{46} + z_0 z_1^3 + z_2^{13} + z_2 z_3^6 + z_3 z_4^2$	Chain + Chain	598	8370	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{26})^3 \oplus (\mathbb{Z}_2)^3$
(51,255,137,106,13)	$z_0^{11} + z_0 z_1^2 + z_4 z_2^4 + z_2 z_3^4 + z_3 z_4^{35}$	Chain + Cycle	561	6720	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{561} \oplus \mathbb{Z}_{51}$
(187,55,220,13,461)	$z_0^5 + z_1^{17} + z_1 z_2^4 + z_2 z_3^{55} + z_3 z_4^2$	BP + Chain	598	13392	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_5)^4$



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(533,13,117,73,331)	$z_0^2 + z_0 z_1^{41} + z_1 z_2^9 + z_2 z_3^{13} + z_3 z_4^3$	Chain	1066	19845	$\mathbb{Z}^{26} \oplus \mathbb{Z}_2$
(282,94,517,13,223)	$z_0^4 + z_0 z_1^9 + z_1 z_2^2 + z_2 z_3^{47} + z_3 z_4^5$	Chain	1128	13575	$\mathbb{Z}^{12} \oplus \mathbb{Z}_8 \oplus (\mathbb{Z}_2)^2$
(799,94,376,13,317)	$z_0^2 + z_1^{17} + z_1 z_2^4 + z_2 z_3^{94} + z_3 z_4^5$	BP + Chain	1598	25620	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_2)^4$
(95,475,291,13,172)	$z_0^{11} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^{58} + z_3 z_4^6$	Chain + Cycle	1045	12528	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{1045} \oplus \mathbb{Z}_{95}$
(99,396,143,13,637)	$z_0^{13} + z_0 z_1^3 + z_2^9 + z_2 z_3^{88} + z_3 z_4^2$	Chain + Chain	1287	21600	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_9)^3$
(127,1073,543,404,13)	$z_0^{17} + z_4 z_1^2 + z_1 z_2^2 + z_2 z_3^4 + z_3 z_4^{135}$	BP + Cycle	2159	34560	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{17}$
(128,1024,721,291,13)	$z_0^{17} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^5 + z_3 z_4^{145}$	Chain + Cycle	2176	39150	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{2176} \oplus \mathbb{Z}_{128}$
(1263,319,148,797,13)	$z_4 z_0^2 + z_0 z_1^4 + z_1 z_2^{15} + z_2 z_3^3 + z_3 z_4^{134}$	Cycle	2539	48240	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{2539}$
(153,612,341,259,13)	$z_0^9 + z_0 z_1^2 + z_4 z_2^4 + z_2 z_3^4 + z_3 z_4^{86}$	Chain + Cycle	1377	13760	$\mathbb{Z}^8 \oplus \mathbb{Z}_{1377} \oplus \mathbb{Z}_{153}$
(13,494,153,1165,659)	$z_0^{191} + z_0 z_1^5 + z_1 z_2^{13} + z_2 z_3^2 + z_3 z_4^2$	Chain	2483	36480	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{2483} \oplus (\mathbb{Z}_{13})^4$
(859,521,171,13,155)	$z_0^2 + z_4 z_1^3 + z_1 z_2^7 + z_2 z_3^{119} + z_3 z_4^{11}$	BP + Cycle	1718	27489	$\mathbb{Z}^{16} \oplus \mathbb{Z}_2$
(1528,764,573,13,179)	$z_0^2 + z_0 z_1^2 + z_1 z_2^4 + z_2 z_3^{191} + z_3 z_4^{17}$	Chain	3056	48909	$\mathbb{Z}^{16} \oplus \mathbb{Z}_8$
(184,1104,299,13,793)	$z_0^{13} + z_0 z_1^2 + z_2^8 + z_2 z_3^{161} + z_3 z_4^3$	Chain + Chain	2392	36162	$\mathbb{Z}^{28} \oplus (\mathbb{Z}_8)^2$
(190,760,1235,13,273)	$z_0^{13} + z_0 z_1^3 + z_2^2 + z_2 z_3^{95} + z_3 z_4^9$	Chain + Chain	2470	41067	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_2)^3$
(13,1495,231,396,869)	$z_0^{231} + z_0 z_1^2 + z_2^{13} + z_2 z_3^7 + z_3 z_4^3$	Chain + Chain	3003	45008	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{39} \oplus \mathbb{Z}_{13}$
(328,246,13,433,293)	$z_0^4 + z_0 z_1^4 + z_1 z_2^{82} + z_2 z_3^3 + z_3 z_4^3$	Chain	1312	9171	$\mathbb{Z}^6 \oplus \mathbb{Z}_{328}$
(249,1494,1079,13,403)	$z_0^{13} + z_0 z_1^2 + z_2^3 + z_2 z_3^{166} + z_3 z_4^8$	Chain + Chain	3237	48832	$\mathbb{Z}^{28} \oplus (\mathbb{Z}_3)^2$
(825,550,1387,13,251)	$z_1 z_0^3 + z_0 z_1^4 + z_4 z_2^2 + z_2 z_3^{126} + z_3 z_4^{12}$	Cycle + Cycle	3025	36288	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{3025} \oplus \mathbb{Z}_{275}$
(256,1920,1361,547,13)	$z_0^{16} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^5 + z_3 z_4^{273}$	Chain + Cycle	4096	69615	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{2048}$
(459,306,341,259,13)	$z_0^3 + z_0 z_1^3 + z_4 z_2^4 + z_2 z_3^4 + z_3 z_4^{86}$	Chain + Cycle	1377	9632	$\mathbb{Z}^6 \oplus \mathbb{Z}_{459}$
(1855,742,13,347,2609)	$z_0^3 + z_0 z_1^5 + z_1 z_2^{371} + z_2 z_3^{16} + z_3 z_4^2$	Chain	5565	94592	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{1113}$
(3029,13,465,799,1753)	$z_0^2 + z_0 z_1^{233} + z_1 z_2^{13} + z_2 z_3^7 + z_3 z_4^3$	Chain	6058	90405	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{26}$
(21,21,14,16,55)	$z_0^6 + z_1^6 + z_2^9 + z_2 z_3^7 + z_3 z_4^2$	BP + Chain	126	1775	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{18} \oplus (\mathbb{Z}_3)^4$
(17,51,17,21,14)	$z_0^7 + z_0 z_1^2 + z_1 z_2^4 + z_4 z_3^5 + z_3 z_4^7$	Chain + Cycle	119	1680	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_7)^3$
(14,56,63,17,33)	$z_0^{13} + z_0 z_1^3 + z_1 z_2^2 + z_2 z_3^7 + z_3 z_4^5$	Chain	182	2235	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{26} \oplus (\mathbb{Z}_2)^2$
(63,18,39,14,119)	$z_0^4 + z_1^{14} + z_1 z_2^6 + z_3^{18} + z_3 z_4^2$	BP + Chain + Chain	252	4047	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{12}$
(14,28,105,19,73)	$z_0^{17} + z_0 z_1^8 + z_1 z_2^2 + z_2 z_3^7 + z_3 z_4^3$	Chain	238	3960	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{34} \oplus (\mathbb{Z}_2)^7$
(14,20,67,29,25)	$z_0^{11} + z_0 z_1^7 + z_1 z_2^2 + z_2 z_3^3 + z_3 z_4^5$	Chain	154	1935	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{22}$
(20,65,14,133,49)	$z_0^{14} + z_0 z_1^4 + z_2^{20} + z_2 z_3^2 + z_3 z_4^3$	Chain + Chain	280	4257	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{20}$
(23,69,35,14,21)	$z_0^7 + z_0 z_1^2 + z_4 z_2^4 + z_2 z_3^9 + z_3 z_4^7$	Chain + Cycle	161	2016	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{23})^2$
(14,161,24,39,99)	$z_0^{24} + z_0 z_1^2 + z_2^{14} + z_2 z_3^8 + z_3 z_4^3$	Chain + Chain	336	5925	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{28}$
(45,105,24,14,173)	$z_0^8 + z_0 z_1^3 + z_2^{15} + z_2 z_3^{24} + z_3 z_4^2$	Chain + Chain	360	6358	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{10} \oplus \mathbb{Z}_2$
(175,25,25,14,112)	$z_0^2 + z_1^{14} + z_2^{14} + z_3^{25} + z_3 z_4^3$	BP + Chain	350	8619	$\mathbb{Z}^{36} \oplus (\mathbb{Z}_2)^3$
(135,45,45,32,14)	$z_0^2 + z_1^6 + z_2^6 + z_4 z_3^8 + z_3 z_4^{17}$	BP + Cycle	270	3400	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_2)^2$
(42,14,231,33,143)	$z_0^{11} + z_1^{33} + z_2^2 + z_2 z_3^7 + z_3 z_4^3$	BP + Chain	462	9280	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_2)^{10}$

Weights	Polynomial	Type	d	$\mu$	$H_3(M, \mathbb{Z})$
(65,195,35,14,147)	$z_0^7 + z_0 z_1^2 + z_2^{13} + z_2 z_3^{30} + z_3 z_4^3$	Chain + Chain	455	6336	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{13})^2$
(285,95,38,14,139)	$z_0^2 + z_1^6 + z_2^{15} + z_2 z_3^{38} + z_3 z_4^4$	BP + Chain	570	8620	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{10} \oplus \mathbb{Z}_2$
(105,175,14,44,293)	$z_0^6 + z_0 z_1^3 + z_2^{45} + z_2 z_3^{14} + z_3 z_4^2$	Chain + Chain	630	8762	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{30} \oplus \mathbb{Z}_2$
(93,279,217,14,49)	$z_0^7 + z_0 z_1^2 + z_2^3 + z_2 z_3^{31} + z_3 z_4^{13}$	Chain + Chain	651	8944	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_3)^2$
(14,252,385,55,65)	$z_0^{55} + z_0 z_1^3 + z_2^2 + z_2 z_3^7 + z_3 z_4^{11}$	Chain + Chain	770	15651	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{22} \oplus (\mathbb{Z}_2)^2$
(243,81,337,14,55)	$z_0^3 + z_1^9 + z_4 z_2^2 + z_2 z_3^{28} + z_3 z_4^{13}$	BP + Cycle	729	11648	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{243} \oplus \mathbb{Z}_{81}$
(105,63,14,58,181)	$z_0^4 + z_0 z_1^5 + z_2^{30} + z_2 z_3^7 + z_3 z_4^2$	Chain + Chain	420	4063	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{12}$
(107,321,245,63,14)	$z_0^7 + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^8 + z_3 z_4^{49}$	Chain + Cycle	749	9408	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{107})^2$
(14,434,63,117,255)	$z_0^{63} + z_0 z_1^2 + z_2^{14} + z_2 z_3^7 + z_3 z_4^3$	Chain + Chain	882	13376	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{42} \oplus \mathbb{Z}_2$
(679,14,336,73,257)	$z_0^2 + z_1^{97} + z_1 z_2^4 + z_2 z_3^{14} + z_3 z_4^5$	BP + Chain	1358	22020	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_2)^4$
(176,14,697,79,443)	$z_0^8 + z_0 z_1^{88} + z_1 z_2^2 + z_2 z_3^9 + z_3 z_4^3$	Chain	1408	26055	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{16}$
(14,238,483,103,367)	$z_0^{86} + z_0 z_1^5 + z_1 z_2^2 + z_2 z_3^7 + z_3 z_4^3$	Chain	1204	12555	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{172} \oplus (\mathbb{Z}_2)^4$
(107,579,14,459,233)	$z_0^{13} + z_4 z_1^2 + z_1 z_2^{58} + z_2 z_3^3 + z_3 z_4^4$	BP + Cycle	1391	16704	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{13}$
(109,481,359,14,237)	$z_0^{11} + z_4 z_1^2 + z_1 z_2^2 + z_2 z_3^{60} + z_3 z_4^5$	BP + Cycle	1199	12000	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{11}$
(1215,135,765,302,14)	$z_0^2 + z_0 z_1^9 + z_1 z_2^3 + z_4 z_3^8 + z_3 z_4^{152}$	Chain + Cycle	2430	44992	$\mathbb{Z}^{18} \oplus \mathbb{Z}_6 \oplus \mathbb{Z}_2$
(497,14,1173,663,153)	$z_1 z_0^5 + z_0 z_1^{143} + z_4 z_2^2 + z_2 z_3^2 + z_3 z_4^{12}$	Cycle + Cycle	2499	34320	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{49} \oplus (\mathbb{Z}_7)^2$
(275,825,175,14,637)	$z_0^7 + z_0 z_1^2 + z_2^{11} + z_2 z_3^{125} + z_3 z_4^3$	Chain + Chain	1925	22080	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{11})^2$
(387,1161,903,14,245)	$z_0^7 + z_0 z_1^2 + z_2^3 + z_2 z_3^{129} + z_3 z_4^{11}$	Chain + Chain	2709	30976	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_3)^2$
(24,32,15,15,35)	$z_0^5 + z_0 z_1^3 + z_2^8 + z_2 z_3^7 + z_3 z_4^3$	Chain + Chain	120	1309	$\mathbb{Z}^{14} \oplus \mathbb{Z}_8$
(17,119,15,80,25)	$z_0^{15} + z_0 z_1^2 + z_2^{17} + z_2 z_3^3 + z_3 z_4^7$	Chain + Chain	255	5152	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{17})^2$
(17,119,15,30,75)	$z_0^{15} + z_0 z_1^2 + z_2^{17} + z_2 z_3^8 + z_3 z_4^3$	Chain + Chain	255	4608	$\mathbb{Z}^{32} \oplus (\mathbb{Z}_{17})^2$
(15,75,60,17,149)	$z_0^{21} + z_0 z_1^4 + z_1 z_2^4 + z_2 z_3^{15} + z_3 z_4^2$	Chain	315	5312	$\mathbb{Z}^{28} \oplus \mathbb{Z}_{21}$
(85,34,137,19,15)	$z_1 z_0^3 + z_0 z_1^6 + z_4 z_2^2 + z_2 z_3^8 + z_3 z_4^{18}$	Cycle + Cycle	289	5184	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{289} \oplus \mathbb{Z}_{17}$
(15,75,20,22,109)	$z_0^{16} + z_0 z_1^3 + z_2^{12} + z_2 z_3^{10} + z_3 z_4^2$	Chain + Chain	240	4323	$\mathbb{Z}^{22} \oplus \mathbb{Z}_{24} \oplus (\mathbb{Z}_3)^2$
(22,121,24,15,83)	$z_0^{12} + z_0 z_1^2 + z_2^{11} + z_2 z_3^{16} + z_3 z_4^3$	Chain + Chain	264	4706	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{33} \oplus \mathbb{Z}_3$
(22,154,15,45,95)	$z_0^{15} + z_0 z_1^2 + z_2^{22} + z_2 z_3^7 + z_3 z_4^3$	Chain + Chain	330	5264	$\mathbb{Z}^{14} \oplus (\mathbb{Z}_{66})^2 \oplus (\mathbb{Z}_3)^5$
(15,30,27,23,71)	$z_0^{11} + z_0 z_1^5 + z_1 z_2^5 + z_2 z_3^6 + z_3 z_4^2$	Chain	165	1880	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{55} \oplus (\mathbb{Z}_5)^4$
(85,85,15,48,23)	$z_0^3 + z_1^3 + z_2^{17} + z_2 z_3^5 + z_3 z_4^9$	BP + Chain	255	2784	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{51} \oplus \mathbb{Z}_{17}$
(15,55,23,161,92)	$z_0^{23} + z_0 z_1^6 + z_2^{15} + z_2 z_3^2 + z_3 z_4^2$	Chain + Chain	345	5104	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_5)^2$
(25,15,155,34,97)	$z_0^{13} + z_0 z_1^{20} + z_1 z_2^2 + z_2 z_3^5 + z_3 z_4^3$	Chain	325	5472	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{13}$
(15,25,130,52,169)	$z_0^{26} + z_0 z_1^{15} + z_2^3 + z_2 z_3^5 + z_3 z_4^2$	Chain + Chain	390	6205	$\mathbb{Z}^{24} \oplus \mathbb{Z}_2$
(99,32,15,53,29)	$z_4 z_0^2 + z_0 z_1^4 + z_1 z_2^{13} + z_2 z_3^4 + z_3 z_4^6$	Cycle	227	2496	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{227}$
(110,110,33,15,63)	$z_0^3 + z_1^3 + z_2^{10} + z_3^{22} + z_3 z_4^5$	BP + Chain	330	3204	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_2)^2$
(167,91,43,34,15)	$z_4 z_0^2 + z_0 z_1^2 + z_1 z_2^6 + z_2 z_3^9 + z_3 z_4^{21}$	Cycle	349	4536	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{349}$
(15,60,185,37,259)	$z_0^{37} + z_0 z_1^9 + z_2^3 + z_2 z_3^{10} + z_3 z_4^2$	Chain + Chain	555	9504	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_3)^9$

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(37,259,15,90,155)	$z_0^{15} + z_0 z_1^2 + z_2^{37} + z_2 z_3^6 + z_3 z_4^3$	Chain + Chain	555	7680	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{111})^2 \oplus (\mathbb{Z}_3)^4$
(65,39,182,285,15)	$z_0^9 + z_1^{15} + z_1 z_2^3 + z_4 z_3^2 + z_3 z_4^{20}$	BP + Chain + Cycle	585	9920	$\mathbb{Z}^{26} \oplus \mathbb{Z}_3$
(15,150,123,41,287)	$z_0^{41} + z_0 z_1^4 + z_2^5 + z_2 z_3^{12} + z_3 z_4^2$	Chain + Chain	615	7936	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_5)^4$
(15,63,66,44,143)	$z_0^{22} + z_0 z_1^5 + z_2^5 + z_2 z_3^6 + z_3 z_4^2$	Chain + Chain	330	3026	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_2)^2$
(44,220,139,15,67)	$z_0^{11} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^{23} + z_3 z_4^7$	Chain + Cycle	484	5796	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{484} \oplus \mathbb{Z}_{44}$
(44,308,165,15,129)	$z_0^{15} + z_0 z_1^2 + z_2^4 + z_2 z_3^{33} + z_3 z_4^5$	Chain + Chain	660	8496	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{20})^2 \oplus \mathbb{Z}_5$
(15,90,57,53,161)	$z_0^{25} + z_0 z_1^4 + z_1 z_2^5 + z_2 z_3^6 + z_3 z_4^2$	Chain	375	3424	$\mathbb{Z}^8 \oplus \mathbb{Z}_{125} \oplus (\mathbb{Z}_5)^3$
(119,238,409,53,15)	$z_0^7 + z_0 z_1^3 + z_4 z_2^2 + z_2 z_3^8 + z_3 z_4^{52}$	Chain + Cycle	833	12480	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{833} \oplus (\mathbb{Z}_{119})^2$
(161,161,69,78,15)	$z_0^3 + z_1^3 + z_2^7 + z_4 z_3^6 + z_3 z_4^{27}$	BP + Cycle	483	3888	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_7)^2$
(200,200,15,117,69)	$z_0^3 + z_1^3 + z_2^{40} + z_2 z_3^5 + z_3 z_4^7$	BP + Chain	600	4956	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{40})^2$
(704,88,15,199,403)	$z_0^2 + z_0 z_1^8 + z_1 z_2^{88} + z_2 z_3^7 + z_3 z_4^3$	Chain	1408	21105	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{176}$
(312,624,15,515,95)	$z_0^5 + z_0 z_1^2 + z_2^{104} + z_2 z_3^3 + z_3 z_4^{11}$	Chain + Chain	1560	19338	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{104})^2$
(15,180,485,97,679)	$z_0^{97} + z_0 z_1^8 + z_2^3 + z_2 z_3^{10} + z_3 z_4^2$	Chain + Chain	1455	21760	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_3)^8$
(15,102,311,181,427)	$z_0^{69} + z_0 z_1^{10} + z_1 z_2^3 + z_2 z_3^4 + z_3 z_4^2$	Chain	1035	9728	$\mathbb{Z}^8 \oplus \mathbb{Z}_{207} \oplus \mathbb{Z}_3$
(459,102,15,227,575)	$z_0^3 + z_0 z_1^9 + z_1 z_2^{85} + z_2 z_3^6 + z_3 z_4^2$	Chain	1377	16040	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{51}$
(153,153,15,125,320)	$z_0^5 + z_1^5 + z_2^{51} + z_2 z_3^6 + z_3 z_4^2$	BP + Chain	765	5696	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{51})^4$
(515,515,15,153,348)	$z_0^3 + z_1^3 + z_2^{103} + z_2 z_3^{10} + z_3 z_4^4$	BP + Chain	1545	12768	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{103})^2$
(176,616,403,15,199)	$z_0^8 + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^{67} + z_3 z_4^7$	Chain + Cycle	1408	12663	$\mathbb{Z}^8 \oplus \mathbb{Z}_{704}$
(287,574,205,15,355)	$z_0^5 + z_0 z_1^2 + z_2^7 + z_2 z_3^{82} + z_3 z_4^4$	Chain + Chain	1435	10368	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_7)^2$
(15,276,373,511,221)	$z_0^{93} + z_0 z_1^5 + z_1 z_2^3 + z_2 z_3^2 + z_3 z_4^4$	Chain	1395	9392	$\mathbb{Z}^6 \oplus \mathbb{Z}_{279}$
(332,664,415,15,235)	$z_0^5 + z_0 z_1^2 + z_2^4 + z_2 z_3^{83} + z_3 z_4^7$	Chain + Chain	1660	11970	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_4)^2$
(15,250,403,931,667)	$z_0^{151} + z_0 z_1^9 + z_1 z_2^5 + z_2 z_3^2 + z_3 z_4^2$	Chain	2265	19176	$\mathbb{Z}^6 \oplus \mathbb{Z}_{755} \oplus (\mathbb{Z}_5)^2$
(15,1390,559,259,1963)	$z_0^{279} + z_0 z_1^3 + z_1 z_2^5 + z_2 z_3^{14} + z_3 z_4^2$	Chain	4185	62216	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{1395}$
(15,858,1149,263,2021)	$z_0^{287} + z_0 z_1^5 + z_1 z_2^3 + z_2 z_3^{12} + z_3 z_4^2$	Chain	4305	54816	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{287}$
(176,16,105,19,37)	$z_0^2 + z_1^{22} + z_4 z_2^3 + z_2 z_3^{13} + z_3 z_4^9$	BP + Cycle	352	7371	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{32}$
(19,171,115,41,16)	$z_0^{19} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^6 + z_3 z_4^{20}$	Chain + Cycle	361	7200	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{361} \oplus \mathbb{Z}_{19}$
(16,80,31,29,21)	$z_0^{11} + z_0 z_1^2 + z_4 z_2^5 + z_2 z_3^5 + z_3 z_4^7$	Chain + Cycle	176	2100	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{176} \oplus \mathbb{Z}_{16}$
(21,119,42,16,181)	$z_0^{18} + z_0 z_1^3 + z_2^9 + z_2 z_3^{21} + z_3 z_4^2$	Chain + Chain	378	7289	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{54} \oplus (\mathbb{Z}_3)^7$
(176,16,109,27,25)	$z_0^2 + z_1^{22} + z_4 z_2^3 + z_2 z_3^9 + z_3 z_4^{13}$	BP + Cycle	352	7371	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{32}$
(55,55,44,16,51)	$z_0^4 + z_1^4 + z_2^5 + z_2 z_3^{11} + z_3 z_4^4$	BP + Chain	220	1521	$\mathbb{Z}^6 \oplus \mathbb{Z}_{20} \oplus (\mathbb{Z}_5)^2$
(59,59,59,44,16)	$z_0^4 + z_1^4 + z_2^4 + z_4 z_3^5 + z_3 z_4^{12}$	BP + Cycle	236	1620	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_4)^2$
(63,189,89,16,85)	$z_0^7 + z_0 z_1^2 + z_4 z_2^4 + z_2 z_3^{22} + z_3 z_4^5$	Chain + Cycle	441	3520	$\mathbb{Z}^6 \oplus \mathbb{Z}_{441} \oplus \mathbb{Z}_{63}$
(63,273,98,16,433)	$z_0^{14} + z_0 z_1^3 + z_2^9 + z_2 z_3^{49} + z_3 z_4^2$	Chain + Chain	882	13021	$\mathbb{Z}^{16} \oplus \mathbb{Z}_6$
(95,475,343,117,16)	$z_0^{11} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^6 + z_3 z_4^{58}$	Chain + Cycle	1045	12528	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{1045} \oplus \mathbb{Z}_{95}$
(187,17,17,110,44)	$z_0^2 + z_1^{22} + z_2^{22} + z_4 z_3^3 + z_3 z_4^6$	BP + Cycle	374	7938	$\mathbb{Z}^{40} \oplus (\mathbb{Z}_2)^2$

Weights	Polynomial	Type	d	$\mu$	$H_3(M, \mathbb{Z})$
(30,20,65,17,19)	$z_0^5 + z_0 z_1^6 + z_1 z_2^2 + z_2 z_3^5 + z_3 z_4^7$	Chain	150	1834	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{10} \oplus \mathbb{Z}_2$
(119,17,34,19,169)	$z_0^3 + z_0 z_1^{14} + z_1 z_2^{10} + z_2 z_3^{17} + z_3 z_4^2$	Chain	357	7520	$\mathbb{Z}^{38} \oplus \mathbb{Z}_3$
(85,17,102,19,203)	$z_0^5 + z_0 z_1^{20} + z_1 z_2^4 + z_2 z_3^{17} + z_3 z_4^2$	Chain	425	7104	$\mathbb{Z}^{28} \oplus \mathbb{Z}_5$
(103,67,17,20,31)	$z_4 z_0^2 + z_0 z_1^2 + z_1 z_2^{10} + z_2 z_3^{11} + z_3 z_4^7$	Cycle	237	3080	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{237}$
(20,120,65,39,17)	$z_0^{13} + z_0 z_1^2 + z_2^4 + z_2 z_3^5 + z_3 z_4^{13}$	Chain + Chain	260	3402	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{52} \oplus \mathbb{Z}_4$
(55,55,20,17,129)	$z_0^5 + z_0 z_1^4 + z_1 z_2^{11} + z_2 z_3^{15} + z_3 z_4^2$	Chain	275	3504	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{55} \oplus (\mathbb{Z}_{11})^3$
(90,60,21,83,17)	$z_0^3 + z_0 z_1^3 + z_1 z_2^{10} + z_2 z_3^3 + z_3 z_4^{11}$	Chain	270	2783	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{30}$
(55,110,181,17,23)	$z_0^7 + z_0 z_1^3 + z_4 z_2^2 + z_2 z_3^{12} + z_3 z_4^{16}$	Chain + Cycle	385	5760	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{385} \oplus (\mathbb{Z}_{55})^2$
(135,45,25,49,17)	$z_0^2 + z_0 z_1^3 + z_1 z_2^9 + z_2 z_3^5 + z_3 z_4^{13}$	Chain	270	3289	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{18}$
(27,144,51,17,221)	$z_0^{17} + z_0 z_1^3 + z_2^9 + z_2 z_3^{24} + z_3 z_4^2$	Chain + Chain	459	7840	$\mathbb{Z}^{26} \oplus \mathbb{Z}_3$
(17,255,51,27,161)	$z_0^{30} + z_1^2 + z_1 z_2^5 + z_2 z_3^{17} + z_3 z_4^3$	BP + Chain	510	10121	$\mathbb{Z}^{28} \oplus \mathbb{Z}_2$
(27,90,159,17,275)	$z_0^{21} + z_0 z_1^6 + z_1 z_2^3 + z_2 z_3^{24} + z_3 z_4^2$	Chain	567	9344	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{63} \oplus \mathbb{Z}_3$
(255,17,29,150,60)	$z_0^2 + z_0 z_1^{15} + z_1 z_2^{17} + z_4 z_3^3 + z_3 z_4^6$	Chain + Cycle	510	8658	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{34} \oplus \mathbb{Z}_2$
(153,17,221,39,30)	$z_0^3 + z_0 z_1^{18} + z_1 z_2^2 + z_4 z_3^{11} + z_3 z_4^{14}$	Chain + Cycle	459	8624	$\mathbb{Z}^{22} \oplus \mathbb{Z}_3$
(35,175,113,17,46)	$z_0^{11} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^{16} + z_3 z_4^8$	Chain + Cycle	385	4608	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{385} \oplus \mathbb{Z}_{35}$
(36,54,99,17,47)	$z_0^7 + z_0 z_1^4 + z_1 z_2^2 + z_2 z_3^9 + z_3 z_4^5$	Chain	252	2050	$\mathbb{Z}^8 \oplus \mathbb{Z}_{14} \oplus \mathbb{Z}_2$
(36,288,153,17,119)	$z_0^{17} + z_0 z_1^2 + z_2^4 + z_2 z_3^{27} + z_3 z_4^5$	Chain + Chain	612	7830	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_4)^2$
(37,171,118,17,65)	$z_0^{11} + z_4 z_1^2 + z_1 z_2^2 + z_2 z_3^{17} + z_3 z_4^6$	BP + Cycle	407	4080	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{11}$
(17,170,41,413,227)	$z_0^{51} + z_0 z_1^5 + z_1 z_2^{17} + z_2 z_3^2 + z_3 z_4^2$	Chain	867	12800	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{867} \oplus (\mathbb{Z}_{17})^4$
(168,42,315,17,131)	$z_0^4 + z_0 z_1^{12} + z_1 z_2^2 + z_2 z_3^{21} + z_3 z_4^5$	Chain	672	8115	$\mathbb{Z}^{12} \oplus \mathbb{Z}_8 \oplus (\mathbb{Z}_2)^2$
(17,119,85,110,44)	$z_0^{22} + z_0 z_1^3 + z_1 z_2^3 + z_4 z_3^3 + z_3 z_4^6$	Chain + Cycle	374	2754	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{22})^2$
(285,45,90,17,419)	$z_0^3 + z_1^{19} + z_1 z_2^9 + z_2 z_3^{45} + z_3 z_4^2$	BP + Chain	855	15696	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_3)^9$
(47,188,17,485,251)	$z_0^{21} + z_0 z_1^5 + z_1 z_2^{47} + z_2 z_3^2 + z_3 z_4^2$	Chain	987	14720	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{987} \oplus (\mathbb{Z}_{47})^4$
(51,17,323,195,78)	$z_0^{13} + z_0 z_1^{36} + z_1 z_2^2 + z_4 z_3^3 + z_3 z_4^6$	Chain + Cycle	663	8640	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{13})^2$
(299,17,230,53,109)	$z_4 z_0^2 + z_0 z_1^{24} + z_1 z_2^3 + z_2 z_3^9 + z_3 z_4^6$	Cycle	707	7776	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{707}$
(124,62,465,17,325)	$z_0^8 + z_0 z_1^{14} + z_1 z_2^2 + z_2 z_3^{31} + z_3 z_4^3$	Chain	992	14007	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{16} \oplus (\mathbb{Z}_2)^6$
(589,62,124,17,387)	$z_0^2 + z_1^{19} + z_1 z_2^9 + z_2 z_3^{62} + z_3 z_4^3$	BP + Chain	1178	21357	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_2)^9$
(63,189,106,67,17)	$z_0^7 + z_0 z_1^2 + z_4 z_2^4 + z_2 z_3^5 + z_3 z_4^{22}$	Chain + Cycle	441	3520	$\mathbb{Z}^6 \oplus \mathbb{Z}_{441} \oplus \mathbb{Z}_{63}$
(297,66,75,17,437)	$z_0^3 + z_0 z_1^9 + z_1 z_2^{11} + z_2 z_3^{48} + z_3 z_4^2$	Chain	891	14528	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{33}$
(297,198,511,17,67)	$z_1 z_0^3 + z_0 z_1^4 + z_4 z_2^2 + z_2 z_3^{34} + z_3 z_4^{16}$	Cycle + Cycle	1089	13056	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{1089} \oplus \mathbb{Z}_{99}$
(375,75,105,17,554)	$z_0^3 + z_0 z_1^{10} + z_1 z_2^{10} + z_2 z_3^{60} + z_3 z_4^2$	Chain	1125	18272	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{15} \oplus \mathbb{Z}_5$
(75,300,255,17,629)	$z_0^{17} + z_0 z_1^4 + z_2^5 + z_2 z_3^{60} + z_3 z_4^2$	Chain + Chain	1275	15808	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_5)^4$
(155,155,93,17,201)	$z_0^4 + z_0 z_1^3 + z_1 z_2^5 + z_2 z_3^{31} + z_3 z_4^3$	Chain	620	3771	$\mathbb{Z}^6 \oplus \mathbb{Z}_{20} \oplus (\mathbb{Z}_5)^2$
(107,687,176,405,17)	$z_0^{13} + z_4 z_1^2 + z_1 z_2^4 + z_2 z_3^3 + z_3 z_4^{58}$	BP + Cycle	1391	16704	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{13}$
(109,519,17,394,161)	$z_0^{11} + z_4 z_1^2 + z_1 z_2^{40} + z_2 z_3^3 + z_3 z_4^5$	BP + Cycle	1199	12000	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{11}$

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(109,591,304,179,17)	$z_0^{11} + z_4 z_1^2 + z_1 z_2^2 + z_2 z_3^5 + z_3 z_4^{60}$	BP + Cycle	1199	12000	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{11}$
(17,697,124,992,279)	$z_0^{124} + z_0 z_1^3 + z_2^{17} + z_2 z_3^2 + z_3 z_4^4$	Chain + Chain	2108	29382	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{68})^2 \oplus \mathbb{Z}_{17}$
(126,504,1071,17,425)	$z_0^{17} + z_0 z_1^4 + z_2^2 + z_2 z_3^{63} + z_3 z_4^5$	Chain + Chain	2142	26260	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_2)^4$
(17,425,126,1008,567)	$z_0^{126} + z_0 z_1^5 + z_2^{17} + z_2 z_3^2 + z_3 z_4^2$	Chain + Chain	2142	25250	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{34})^2 \oplus (\mathbb{Z}_{17})^3$
(17,1139,135,360,645)	$z_0^{135} + z_0 z_1^2 + z_2^{17} + z_2 z_3^6 + z_3 z_4^3$	Chain + Chain	2295	29920	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{51})^2$
(530,212,689,17,143)	$z_0^3 + z_0 z_1^5 + z_1 z_2^2 + z_2 z_3^{53} + z_3 z_4^{11}$	Chain	1590	15917	$\mathbb{Z}^{10} \oplus \mathbb{Z}_6$
(255,17,629,225,150)	$z_0^5 + z_0 z_1^{60} + z_1 z_2^2 + z_4 z_3^5 + z_3 z_4^7$	Chain + Cycle	1275	10640	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_5)^3$
(175,525,358,17,151)	$z_0^7 + z_0 z_1^2 + z_4 z_3^2 + z_2 z_3^{51} + z_3 z_4^8$	Chain + Cycle	1225	9792	$\mathbb{Z}^6 \oplus \mathbb{Z}_{1225} \oplus \mathbb{Z}_{175}$
(17,901,153,535,214)	$z_0^{107} + z_0 z_1^2 + z_1 z_2^6 + z_4 z_3^3 + z_3 z_4^6$	Chain + Cycle	1819	21168	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{107})^2$
(172,1376,17,969,391)	$z_0^{17} + z_0 z_1^2 + z_2^{172} + z_2 z_3^3 + z_3 z_4^5$	Chain + Chain	2924	40230	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{172})^2$
(206,1648,17,697,935)	$z_0^{17} + z_0 z_1^2 + z_2^{206} + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	3502	40770	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{206})^2$
(231,1232,17,1955,493)	$z_0^{17} + z_0 z_1^3 + z_2^{231} + z_2 z_3^2 + z_3 z_4^4$	Chain + Chain	3927	56560	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{77}$
(235,752,17,1989,1003)	$z_0^{17} + z_0 z_1^5 + z_2^{235} + z_2 z_3^2 + z_3 z_4^2$	Chain + Chain	3995	48576	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{47}$
(527,17,697,620,248)	$z_0^4 + z_0 z_1^{93} + z_1 z_2^3 + z_4 z_3^3 + z_3 z_4^6$	Chain + Cycle	2108	13446	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_4)^2$
(1071,17,425,378,252)	$z_0^2 + z_0 z_1^{63} + z_1 z_2^5 + z_4 z_3^5 + z_3 z_4^7$	Chain + Cycle	2142	17675	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_2)^3$
(799,17,595,705,282)	$z_0^3 + z_0 z_1^{94} + z_1 z_2^4 + z_4 z_3^3 + z_3 z_4^6$	Chain + Cycle	2397	15264	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_3)^2$
(2584,1292,17,303,973)	$z_0^2 + z_0 z_1^2 + z_1 z_2^{228} + z_2 z_3^{17} + z_3 z_4^5$	Chain	5168	62925	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{152}$
(333,1776,17,1411,2125)	$z_0^{17} + z_0 z_1^3 + z_2^{333} + z_2 z_3^4 + z_3 z_4^2$	Chain + Chain	5661	58240	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{111}$
(344,2580,17,1829,735)	$z_0^{16} + z_0 z_1^2 + z_1 z_2^{172} + z_2 z_3^3 + z_3 z_4^5$	Chain	5504	71535	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{2752}$
(17,493,1241,875,350)	$z_0^{175} + z_0 z_1^6 + z_1 z_2^2 + z_4 z_3^3 + z_3 z_4^6$	Chain + Cycle	2975	22032	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{175})^2$
(3128,782,17,367,1963)	$z_0^2 + z_0 z_1^4 + z_1 z_2^{322} + z_2 z_3^{17} + z_3 z_4^3$	Chain	6256	90153	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{92}$
(1564,2346,17,367,1963)	$z_0^4 + z_0 z_1^2 + z_1 z_2^{230} + z_2 z_3^{17} + z_3 z_4^3$	Chain	6256	64395	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{184}$
(412,3090,17,1315,1759)	$z_0^{16} + z_0 z_1^2 + z_1 z_2^{206} + z_2 z_3^5 + z_3 z_4^3$	Chain	6592	72495	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{3296}$
(2475,990,3481,17,463)	$z_0^3 + z_0 z_1^5 + z_4 z_2^2 + z_2 z_3^{232} + z_3 z_4^{16}$	Chain + Cycle	7425	96512	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{1485}$
(1485,1980,3481,17,463)	$z_0^5 + z_0 z_1^3 + z_4 z_2^2 + z_2 z_3^{232} + z_3 z_4^{16}$	Chain + Cycle	7425	81664	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{2475}$
(209,19,133,40,18)	$z_0^2 + z_0 z_1^{11} + z_1 z_2^3 + z_4 z_3^{10} + z_3 z_4^{21}$	Chain + Cycle	418	9450	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_2)^2$
(45,18,129,23,191)	$z_0^9 + z_0 z_1^{20} + z_1 z_2^3 + z_2 z_3^{12} + z_3 z_4^2$	Chain	405	6848	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{27} \oplus (\mathbb{Z}_3)^3$
(18,102,111,71,23)	$z_0^{18} + z_0 z_1^3 + z_1 z_2^2 + z_2 z_3^3 + z_3 z_4^{11}$	Chain	324	3311	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{36}$
(99,165,18,32,281)	$z_0^6 + z_0 z_1^3 + z_2^{33} + z_2 z_3^{18} + z_3 z_4^2$	Chain + Chain	594	8138	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{198} \oplus \mathbb{Z}_6$
(175,75,18,169,89)	$z_0^3 + z_1^7 + z_1 z_2^{25} + z_2 z_3^3 + z_3 z_4^4$	BP + Chain	525	3488	$\mathbb{Z}^6 \oplus \mathbb{Z}_3$
(303,101,101,84,18)	$z_0^2 + z_1^6 + z_2^6 + z_4 z_3^7 + z_3 z_4^{29}$	BP + Cycle	606	5075	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_2)^3$
(396,18,783,89,299)	$z_0^4 + z_0 z_1^{66} + z_1 z_2^2 + z_2 z_3^9 + z_3 z_4^5$	Chain	1584	19275	$\mathbb{Z}^{12} \oplus \mathbb{Z}_8 \oplus (\mathbb{Z}_2)^2$
(354,18,699,239,107)	$z_0^4 + z_0 z_1^{59} + z_1 z_2^2 + z_2 z_3^3 + z_3 z_4^{11}$	Chain	1416	14399	$\mathbb{Z}^{10} \oplus \mathbb{Z}_8$
(825,275,125,408,18)	$z_0^2 + z_0 z_1^3 + z_1 z_2^{11} + z_4 z_3^4 + z_3 z_4^{69}$	Chain + Cycle	1650	16836	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{22} \oplus \mathbb{Z}_2$
(18,558,1125,125,425)	$z_0^{125} + z_0 z_1^4 + z_2^2 + z_2 z_3^9 + z_3 z_4^5$	Chain + Chain	2250	27448	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{10} \oplus (\mathbb{Z}_2)^3$

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(125,425,18,1116,567)	$z_0^{18} + z_0 z_1^5 + z_2^{125} + z_2 z_3^2 + z_3 z_4^2$	Chain + Chain	2250	27302	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{50} \oplus \mathbb{Z}_2$
(18,1530,129,983,419)	$z_0^{171} + z_0 z_1^2 + z_1 z_2^{12} + z_2 z_3^3 + z_3 z_4^5$	Chain	3078	53180	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{1026} \oplus \mathbb{Z}_6$
(141,18,605,307,763)	$z_0^{13} + z_0 z_1^{94} + z_1 z_2^3 + z_2 z_3^4 + z_3 z_4^2$	Chain	1833	17120	$\mathbb{Z}^8 \oplus \mathbb{Z}_{39} \oplus \mathbb{Z}_3$
(537,18,1247,157,1801)	$z_0^7 + z_0 z_1^{179} + z_1 z_2^3 + z_2 z_3^{16} + z_3 z_4^2$	Chain	3759	62656	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{21}$
(729,1458,18,161,551)	$z_0^4 + z_1^2 + z_1 z_2^{81} + z_2 z_3^{18} + z_3 z_4^5$	BP + Chain	2916	35475	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{324}$
(1827,18,1212,407,191)	$z_0^2 + z_1^{203} + z_1 z_2^3 + z_2 z_3^6 + z_3 z_4^{17}$	BP + Chain	3654	58871	$\mathbb{Z}^{16} \oplus \mathbb{Z}_2$
(19,95,19,44,33)	$z_0^{11} + z_0 z_1^2 + z_1 z_2^6 + z_4 z_3^4 + z_3 z_4^5$	Chain + Cycle	209	2400	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{11})^2$
(21,189,133,38,19)	$z_0^{19} + z_0 z_1^2 + z_2^3 + z_2 z_3^7 + z_3 z_4^{19}$	Chain + Chain	399	7600	$\mathbb{Z}^{36} \oplus (\mathbb{Z}_3)^2$
(21,189,19,95,76)	$z_0^{19} + z_0 z_1^2 + z_2^{21} + z_2 z_3^4 + z_3 z_4^4$	Chain + Chain	399	5440	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{21})^2$
(22,36,209,19,133)	$z_0^{19} + z_0 z_1^{11} + z_2^2 + z_2 z_3^{11} + z_3 z_4^3$	Chain + Chain	418	8595	$\mathbb{Z}^{22} \oplus \mathbb{Z}_2$
(242,22,155,47,19)	$z_0^2 + z_1^{22} + z_4 z_2^3 + z_2 z_3^7 + z_3 z_4^{23}$	BP + Cycle	484	10143	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{44}$
(147,42,19,211,23)	$z_0^3 + z_0 z_1^7 + z_1 z_2^{21} + z_2 z_3^2 + z_3 z_4^{10}$	Chain	441	8360	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{63}$
(63,126,211,23,19)	$z_0^7 + z_0 z_1^3 + z_4 z_2^2 + z_2 z_3^{10} + z_3 z_4^{22}$	Chain + Cycle	441	6600	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{441} \oplus (\mathbb{Z}_{63})^2$
(32,160,105,19,37)	$z_0^{11} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^{13} + z_3 z_4^9$	Chain + Cycle	352	4212	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{352} \oplus \mathbb{Z}_{32}$
(19,152,33,373,203)	$z_0^{41} + z_0 z_1^5 + z_1 z_2^{19} + z_2 z_3^2 + z_3 z_4^2$	Chain	779	11520	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{779} \oplus (\mathbb{Z}_{19})^4$
(350,70,35,19,227)	$z_0^2 + z_0 z_1^5 + z_1 z_2^{18} + z_2 z_3^{35} + z_3 z_4^3$	Chain	700	12771	$\mathbb{Z}^{26} \oplus \mathbb{Z}_4$
(140,280,35,19,227)	$z_0^5 + z_0 z_1^2 + z_1 z_2^{12} + z_2 z_3^{35} + z_3 z_4^3$	Chain	700	8514	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{20} \oplus \mathbb{Z}_4$
(191,19,50,123,37)	$z_4 z_0^2 + z_0 z_1^{12} + z_1 z_2^8 + z_2 z_3^3 + z_3 z_4^8$	Cycle	419	4608	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{419}$
(88,66,143,19,37)	$z_0^4 + z_0 z_1^4 + z_1 z_2^2 + z_2 z_3^{11} + z_3 z_4^9$	Chain	352	2835	$\mathbb{Z}^8 \oplus \mathbb{Z}_8$
(40,360,95,19,247)	$z_0^{19} + z_0 z_1^2 + z_2^8 + z_2 z_3^{35} + z_3 z_4^3$	Chain + Chain	760	11340	$\mathbb{Z}^{28} \oplus (\mathbb{Z}_8)^2$
(44,220,155,47,19)	$z_0^{11} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^7 + z_3 z_4^{23}$	Chain + Cycle	484	5796	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{484} \oplus \mathbb{Z}_{44}$
(51,102,323,19,475)	$z_0^{19} + z_0 z_1^9 + z_2^3 + z_2 z_3^{34} + z_3 z_4^2$	Chain + Chain	969	15912	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_3)^9$
(19,475,51,153,272)	$z_0^{51} + z_0 z_1^2 + z_2^{19} + z_2 z_3^6 + z_3 z_4^3$	Chain + Chain	969	12792	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{57})^2 \oplus (\mathbb{Z}_3)^4$
(392,56,233,19,85)	$z_0^2 + z_1^{14} + z_4 z_2^3 + z_2 z_3^{29} + z_3 z_4^9$	BP + Cycle	784	10179	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{112}$
(467,176,273,19,61)	$z_4 z_0^2 + z_0 z_1^3 + z_1 z_2^3 + z_2 z_3^{38} + z_3 z_4^{16}$	Cycle	995	10944	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{995}$
(70,140,665,19,437)	$z_0^{19} + z_0 z_1^9 + z_2^2 + z_2 z_3^{35} + z_3 z_4^3$	Chain + Chain	1330	21573	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_2)^9$
(19,437,70,630,175)	$z_0^{70} + z_0 z_1^3 + z_2^{19} + z_2 z_3^2 + z_3 z_4^4$	Chain + Chain	1330	18612	$\mathbb{Z}^{14} \oplus (\mathbb{Z}_{38})^2 \oplus \mathbb{Z}_{19}$
(70,210,455,19,367)	$z_0^{16} + z_0 z_1^5 + z_1 z_2^2 + z_2 z_3^{35} + z_3 z_4^3$	Chain	1120	11295	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{32} \oplus (\mathbb{Z}_2)^4$
(19,266,71,639,355)	$z_0^{71} + z_0 z_1^5 + z_2^{19} + z_2 z_3^2 + z_3 z_4^2$	Chain + Chain	1349	15960	$\mathbb{Z}^{10} \oplus (\mathbb{Z}_{19})^5$
(112,336,233,19,85)	$z_0^7 + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^{29} + z_3 z_4^9$	Chain + Cycle	784	6264	$\mathbb{Z}^6 \oplus \mathbb{Z}_{784} \oplus \mathbb{Z}_{112}$
(85,170,119,19,373)	$z_0^9 + z_0 z_1^4 + z_1 z_2^5 + z_2 z_3^{34} + z_3 z_4^2$	Chain	765	6272	$\mathbb{Z}^8 \oplus \mathbb{Z}_{45} \oplus (\mathbb{Z}_5)^3$
(567,189,841,86,19)	$z_0^3 + z_1^9 + z_4 z_2^2 + z_2 z_3^{10} + z_3 z_4^{85}$	BP + Cycle	1701	27200	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{567} \oplus \mathbb{Z}_{189}$
(87,522,19,817,209)	$z_0^{19} + z_0 z_1^3 + z_2^{87} + z_2 z_3^2 + z_3 z_4^4$	Chain + Chain	1653	23712	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_{87})^3$
(704,88,463,135,19)	$z_0^2 + z_1^{16} + z_4 z_2^3 + z_2 z_3^7 + z_3 z_4^{67}$	BP + Cycle	1408	21105	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{176}$
(89,236,129,19,151)	$z_0^7 + z_4 z_1^2 + z_1 z_2^3 + z_2 z_3^{26} + z_3 z_4^4$	BP + Cycle	623	3744	$\mathbb{Z}^6 \oplus \mathbb{Z}_7$

Weights	Polynomial	Type	d	$\mu$	$H_3(M, \mathbb{Z})$
(97,873,19,608,247)	$z_0^{19} + z_0 z_1^2 + z_2^{97} + z_2 z_3^3 + z_3 z_4^5$	Chain + Chain	1843	25200	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{97})^2$
(125,250,131,19,101)	$z_0^5 + z_0 z_1^2 + z_4 z_2^4 + z_2 z_3^{26} + z_3 z_4^6$	Chain + Cycle	625	3744	$\mathbb{Z}^4 \oplus \mathbb{Z}_{625} \oplus \mathbb{Z}_{125}$
(159,106,19,547,283)	$z_0^7 + z_0 z_1^9 + z_1 z_2^{53} + z_2 z_3^2 + z_3 z_4^2$	Chain	1113	9960	$\mathbb{Z}^6 \oplus \mathbb{Z}_{371} \oplus (\mathbb{Z}_{53})^2$
(116,1044,19,437,589)	$z_0^{19} + z_0 z_1^2 + z_2^{116} + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	2204	25500	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{116})^2$
(119,595,170,19,883)	$z_0^{15} + z_1^3 + z_1 z_2^7 + z_2 z_3^{85} + z_3 z_4^2$	BP + Chain	1785	25256	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{105} \oplus \mathbb{Z}_7$
(125,750,19,589,893)	$z_0^{19} + z_0 z_1^3 + z_2^{125} + z_2 z_3^4 + z_3 z_4^2$	Chain + Chain	2375	24336	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{125})^3$
(176,616,463,135,19)	$z_0^8 + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^7 + z_3 z_4^{67}$	Chain + Cycle	1408	12663	$\mathbb{Z}^8 \oplus \mathbb{Z}_{704}$
(1001,182,140,19,661)	$z_0^2 + z_1^{11} + z_1 z_2^{13} + z_2 z_3^{98} + z_3 z_4^3$	BP + Chain	2002	28161	$\mathbb{Z}^{14} \oplus \mathbb{Z}_2$
(140,770,1225,19,1067)	$z_0^{23} + z_0 z_1^4 + z_1 z_2^2 + z_2 z_3^{105} + z_3 z_4^3$	Chain	3220	38754	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{46} \oplus \mathbb{Z}_2$
(477,159,424,19,353)	$z_0^3 + z_0 z_1^6 + z_1 z_2^3 + z_2 z_3^{53} + z_3 z_4^4$	Chain	1431	8624	$\mathbb{Z}^6 \oplus \mathbb{Z}_9 \oplus \mathbb{Z}_3$
(19,817,209,348,261)	$z_0^{87} + z_0 z_1^2 + z_1 z_2^4 + z_4 z_3^4 + z_3 z_4^5$	Chain + Cycle	1653	12160	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{87})^2$
(1929,487,226,1217,19)	$z_4 z_0^2 + z_0 z_1^4 + z_1 z_2^{15} + z_2 z_3^3 + z_3 z_4^{140}$	Cycle	3877	50400	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{3877}$
(1683,306,527,19,2515)	$z_0^3 + z_0 z_1^{11} + z_1 z_2^9 + z_2 z_3^{238} + z_3 z_4^2$	Chain	5049	70952	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{27}$
(19,589,893,500,375)	$z_0^{125} + z_0 z_1^4 + z_1 z_2^2 + z_4 z_3^4 + z_3 z_4^5$	Chain + Cycle	2375	12480	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{125})^2$
(19,3097,1330,420,4445)	$z_0^{490} + z_0 z_1^3 + z_2^7 + z_2 z_3^{19} + z_3 z_4^2$	Chain + Chain	9310	136359	$\mathbb{Z}^{26} \oplus \mathbb{Z}_{14}$
(3617,2405,439,755,19)	$z_0^2 + z_4 z_1^3 + z_1 z_2^{11} + z_2 z_3^9 + z_3 z_4^{341}$	BP + Cycle	7234	101277	$\mathbb{Z}^{14} \oplus \mathbb{Z}_2$
(459,561,1496,19,2515)	$z_0^{11} + z_1^9 + z_1 z_2^3 + z_2 z_3^{187} + z_3 z_4^2$	BP + Chain	5049	50680	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{11}$
(770,490,2835,19,2047)	$z_0^8 + z_0 z_1^{11} + z_1 z_2^2 + z_2 z_3^{175} + z_3 z_4^3$	Chain	6160	61695	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{16}$
(4085,19,1748,553,5851)	$z_0^3 + z_0 z_1^{430} + z_1 z_2^7 + z_2 z_3^{19} + z_3 z_4^2$	Chain	12255	179312	$\mathbb{Z}^{26} \oplus \mathbb{Z}_3$
(2769,3823,19,1036,661)	$z_0^3 + z_4 z_1^2 + z_1 z_2^{236} + z_2 z_3^8 + z_3 z_4^{11}$	BP + Cycle	8307	83072	$\mathbb{Z}^{10} \oplus \mathbb{Z}_3$
(4833,1074,2864,19,877)	$z_0^2 + z_1^9 + z_1 z_2^3 + z_2 z_3^{358} + z_3 z_4^{11}$	BP + Chain	9666	96679	$\mathbb{Z}^{10} \oplus \mathbb{Z}_2$
(230,20,345,69,27)	$z_0^3 + z_0 z_1^{23} + z_2^2 + z_2 z_3^5 + z_3 z_4^{23}$	Chain + Chain	690	14807	$\mathbb{Z}^{22} \oplus \mathbb{Z}_2$
(47,47,47,28,20)	$z_0^4 + z_1^4 + z_2^4 + z_4 z_3^6 + z_3 z_4^8$	BP + Cycle	188	1296	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_4)^2$
(20,30,165,39,107)	$z_0^{18} + z_1^{12} + z_1 z_2^2 + z_2 z_3^5 + z_3 z_4^3$	BP + Chain	360	4301	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{12} \oplus (\mathbb{Z}_2)^4$
(39,117,30,20,185)	$z_0^{10} + z_0 z_1^3 + z_2^{13} + z_2 z_3^{18} + z_3 z_4^2$	Chain + Chain	390	5166	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{26})^3 \oplus (\mathbb{Z}_2)^3$
(37,407,111,20,277)	$z_0^{23} + z_0 z_1^2 + z_1 z_2^4 + z_2 z_3^{37} + z_3 z_4^3$	Chain	6851	13776	$\mathbb{Z}^{22} \oplus \mathbb{Z}_{23}$
(20,290,445,49,377)	$z_0^{59} + z_0 z_1^4 + z_1 z_2^2 + z_2 z_3^{15} + z_3 z_4^3$	Chain	1180	14454	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{118} \oplus \mathbb{Z}_2$
(189,315,54,20,557)	$z_0^6 + z_0 z_1^3 + z_2^{21} + z_2 z_3^{54} + z_3 z_4^2$	Chain + Chain	1134	15002	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{126} \oplus \mathbb{Z}_6$
(59,229,151,20,73)	$z_0^9 + z_4 z_1^2 + z_1 z_2^2 + z_2 z_3^{19} + z_3 z_4^7$	BP + Cycle	531	4256	$\mathbb{Z}^8 \oplus \mathbb{Z}_9$
(145,20,570,59,367)	$z_0^8 + z_1^{58} + z_1 z_2^2 + z_2 z_3^{10} + z_3 z_4^3$	BP + Chain	1160	16653	$\mathbb{Z}^{16} \oplus \mathbb{Z}_4$
(69,437,20,680,175)	$z_0^{20} + z_0 z_1^3 + z_2^{69} + z_2 z_3^2 + z_3 z_4^4$	Chain + Chain	1380	19762	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{92} \oplus \mathbb{Z}_4$
(89,211,103,20,201)	$z_0^7 + z_4 z_1^2 + z_1 z_2^4 + z_2 z_3^{26} + z_3 z_4^3$	BP + Cycle	623	3744	$\mathbb{Z}^6 \oplus \mathbb{Z}_7$
(99,297,90,20,485)	$z_0^{10} + z_0 z_1^3 + z_2^{11} + z_2 z_3^{45} + z_3 z_4^2$	Chain + Chain	990	10605	$\mathbb{Z}^{10} \oplus (\mathbb{Z}_{22})^3 \oplus (\mathbb{Z}_2)^2$
(20,245,990,99,627)	$z_0^{99} + z_0 z_1^8 + z_2^2 + z_2 z_3^{10} + z_3 z_4^3$	Chain + Chain	1980	28454	$\mathbb{Z}^{16} \oplus \mathbb{Z}_3$
(99,627,20,490,745)	$z_0^{20} + z_0 z_1^3 + z_2^{99} + z_2 z_3^4 + z_3 z_4^2$	Chain + Chain	1980	20254	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{66} \oplus \mathbb{Z}_2$

Weights	Polynomial	Type	d	$\mu$	$H_3(M, \mathbb{Z})$
(275,1100,20,109,697)	$z_0^8 + z_1^2 + z_1 z_2^{55} + z_2 z_3^{20} + z_3 z_4^3$	BP + Chain	2200	31563	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{440}$
(550,825,20,109,697)	$z_0^4 + z_0 z_1^2 + z_2^{110} + z_2 z_3^{20} + z_3 z_4^3$	Chain + Chain	2200	22545	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{220}$
(407,111,1369,20,943)	$z_0^7 + z_0 z_1^{22} + z_1 z_2^2 + z_2 z_3^{74} + z_3 z_4^3$	Chain	2849	45744	$\mathbb{Z}^{18} \oplus \mathbb{Z}_7$
(20,800,405,243,153)	$z_0^{81} + z_0 z_1^2 + z_2^4 + z_2 z_3^5 + z_3 z_4^9$	Chain + Chain	1620	13366	$\mathbb{Z}^8 \oplus \mathbb{Z}_{36} \oplus \mathbb{Z}_4$
(945,189,567,170,20)	$z_0^2 + z_0 z_1^5 + z_1 z_2^3 + z_4 z_3^{11} + z_3 z_4^{86}$	Chain + Cycle	1890	19866	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_2)^6$
(20,1610,405,189,1017)	$z_0^{162} + z_0 z_1^2 + z_2^8 + z_2 z_3^{15} + z_3 z_4^3$	Chain + Chain	3240	40261	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{12}$
(20,1170,595,353,223)	$z_0^{118} + z_0 z_1^2 + z_1 z_2^2 + z_2 z_3^5 + z_3 z_4^9$	Chain	2360	19233	$\mathbb{Z}^8 \oplus \mathbb{Z}_{236}$
(20,2040,515,239,1287)	$z_0^{205} + z_0 z_1^2 + z_1 z_2^4 + z_2 z_3^{15} + z_3 z_4^3$	Chain	4100	50634	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{820} \oplus \mathbb{Z}_4$
(1340,20,665,403,253)	$z_0^2 + z_0 z_1^{67} + z_1 z_2^4 + z_2 z_3^5 + z_3 z_4^9$	Chain	2680	21843	$\mathbb{Z}^8 \oplus \mathbb{Z}_8$
(20,510,1285,359,907)	$z_0^{154} + z_0 z_1^6 + z_1 z_2^2 + z_2 z_3^5 + z_3 z_4^3$	Chain	3080	19557	$\mathbb{Z}^6 \oplus \mathbb{Z}_{308} \oplus (\mathbb{Z}_2)^2$
(23,23,39,33,21)	$z_0^6 + z_1^6 + z_4 z_2^3 + z_2 z_3^3 + z_3 z_4^5$	BP + Cycle	138	1125	$\mathbb{Z}^4 \oplus \mathbb{Z}_{46} \oplus (\mathbb{Z}_{23})^4$
(21,112,35,23,167)	$z_0^{17} + z_0 z_1^3 + z_1 z_2^7 + z_2 z_3^{14} + z_3 z_4^2$	Chain	357	5320	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{17}$
(26,52,273,21,175)	$z_0^{21} + z_0 z_1^{10} + z_2^2 + z_2 z_3^{13} + z_3 z_4^3$	Chain + Chain	546	10070	$\mathbb{Z}^{18} \oplus \mathbb{Z}_6 \oplus (\mathbb{Z}_2)^9$
(26,78,195,21,149)	$z_0^{18} + z_1^6 + z_1 z_2^2 + z_2 z_3^{13} + z_3 z_4^3$	BP + Chain	468	5423	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{12} \oplus (\mathbb{Z}_2)^4$
(26,299,78,21,201)	$z_0^{24} + z_0 z_1^2 + z_2^8 + z_2 z_3^{26} + z_3 z_4^3$	Chain + Chain	624	10575	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{16} \oplus (\mathbb{Z}_2)^6$
(21,175,26,104,221)	$z_0^{26} + z_0 z_1^3 + z_2^{21} + z_2 z_3^5 + z_3 z_4^2$	Chain + Chain	546	6625	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{14} \oplus (\mathbb{Z}_2)^4$
(35,21,32,71,87)	$z_0^7 + z_0 z_1^{10} + z_1 z_2^7 + z_2 z_3^3 + z_3 z_4^2$	Chain	245	1896	$\mathbb{Z}^6 \oplus \mathbb{Z}_{49} \oplus \mathbb{Z}_7$
(21,35,33,99,44)	$z_0^{11} + z_0 z_1^6 + z_2^7 + z_2 z_3^2 + z_3 z_4^3$	Chain + Chain	231	1904	$\mathbb{Z}^8 \oplus (\mathbb{Z}_7)^2$
(34,238,119,21,65)	$z_0^{14} + z_1^2 + z_1 z_2^2 + z_2 z_3^{17} + z_3 z_4^7$	BP + Chain	476	5343	$\mathbb{Z}^{12} \oplus \mathbb{Z}_4$
(36,468,21,317,131)	$z_0^{27} + z_0 z_1^2 + z_1 z_2^{24} + z_2 z_3^3 + z_3 z_4^5$	Chain	972	16820	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{324} \oplus \mathbb{Z}_{12}$
(37,193,107,50,21)	$z_0^{11} + z_4 z_1^2 + z_1 z_2^2 + z_2 z_3^6 + z_3 z_4^{17}$	BP + Cycle	407	4080	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{11}$
(266,76,399,21,37)	$z_0^3 + z_0 z_1^7 + z_2^2 + z_2 z_3^{19} + z_3 z_4^{21}$	Chain + Chain	798	14459	$\mathbb{Z}^{18} \oplus \mathbb{Z}_6$
(104,52,39,21,97)	$z_0^3 + z_1^6 + z_2^8 + z_2 z_3^{13} + z_3 z_4^3$	BP + Chain	312	2150	$\mathbb{Z}^8 \oplus \mathbb{Z}_{12} \oplus \mathbb{Z}_4$
(21,693,51,452,191)	$z_0^{67} + z_0 z_1^2 + z_1 z_2^{14} + z_2 z_3^3 + z_3 z_4^5$	Chain	1407	24320	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{469} \oplus \mathbb{Z}_7$
(52,442,117,21,305)	$z_0^{18} + z_0 z_1^2 + z_2^8 + z_2 z_3^{39} + z_3 z_4^3$	Chain + Chain	936	11989	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{12}$
(21,357,52,520,143)	$z_0^{52} + z_0 z_1^3 + z_2^{21} + z_2 z_3^2 + z_3 z_4^4$	Chain + Chain	1092	15330	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{84})^2 \oplus \mathbb{Z}_{21}$
(59,177,59,98,21)	$z_0^7 + z_0 z_1^2 + z_1 z_2^4 + z_4 z_3^4 + z_3 z_4^{15}$	Chain + Cycle	413	2880	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_7)^2$
(59,236,21,609,315)	$z_0^{21} + z_0 z_1^5 + z_2^{59} + z_2 z_3^2 + z_3 z_4^2$	Chain + Chain	1239	14960	$\mathbb{Z}^{10} \oplus (\mathbb{Z}_{59})^5$
(68,204,119,21,65)	$z_0^7 + z_0 z_1^2 + z_2^4 + z_2 z_3^{17} + z_3 z_4^7$	Chain + Chain	476	3288	$\mathbb{Z}^6 \oplus \mathbb{Z}_{28} \oplus \mathbb{Z}_4$
(72,720,21,497,203)	$z_0^{21} + z_0 z_1^2 + z_2^{72} + z_2 z_3^3 + z_3 z_4^5$	Chain + Chain	1512	20570	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{72} \oplus \mathbb{Z}_{24}$
(173,346,595,77,21)	$z_0^7 + z_0 z_1^3 + z_4 z_2^2 + z_2 z_3^8 + z_3 z_4^{54}$	Chain + Cycle	1211	12960	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{173})^3$
(125,250,151,79,21)	$z_0^5 + z_0 z_1^2 + z_4 z_2^4 + z_2 z_3^6 + z_3 z_4^{26}$	Chain + Cycle	625	3744	$\mathbb{Z}^4 \oplus \mathbb{Z}_{625} \oplus \mathbb{Z}_{125}$
(86,860,21,357,483)	$z_0^{21} + z_0 z_1^2 + z_2^{86} + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	1806	20790	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{86})^2$
(104,728,195,21,513)	$z_0^{15} + z_0 z_1^2 + z_2^8 + z_2 z_3^{65} + z_3 z_4^3$	Chain + Chain	1560	16752	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_8)^2$
(21,357,364,104,247)	$z_0^{52} + z_0 z_1^3 + z_2^3 + z_2 z_3^7 + z_3 z_4^4$	Chain + Chain	1092	6825	$\mathbb{Z}^6 \oplus \mathbb{Z}_{12} \oplus (\mathbb{Z}_3)^2$



Weights	Polynomial	Type	d	$\mu$	$H_3(M, \mathbb{Z})$
(104,1404,351,21,929)	$z_0^{27} + z_1^2 + z_1 z_2^4 + z_2 z_3^{117} + z_3 z_4^3$	BP + Chain	2808	48854	$\mathbb{Z}^{18} \oplus \mathbb{Z}_9$
(109,589,122,359,21)	$z_0^{11} + z_4 z_1^2 + z_1 z_2^5 + z_2 z_3^3 + z_3 z_4^{40}$	BP + Cycle	1199	12000	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{11}$
(308,308,21,129,159)	$z_0^3 + z_1^3 + z_2^{44} + z_2 z_3^7 + z_3 z_4^5$	BP + Chain	924	5100	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{44})^2$
(728,364,21,205,139)	$z_0^2 + z_0 z_1^2 + z_1 z_2^{52} + z_2 z_3^7 + z_3 z_4^9$	Chain	1456	11853	$\mathbb{Z}^8 \oplus \mathbb{Z}_{104}$
(695,139,973,258,21)	$z_0^3 + z_0 z_1^{10} + z_1 z_2^2 + z_4 z_3^8 + z_3 z_4^{87}$	Chain + Cycle	2085	22272	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_3)^2$
(869,1738,158,21,691)	$z_0^4 + z_1^2 + z_1 z_2^{11} + z_2 z_3^{158} + z_3 z_4^5$	BP + Chain	3476	41775	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{44}$
(159,689,1113,21,245)	$z_0^{14} + z_0 z_1^3 + z_2^2 + z_2 z_3^{53} + z_3 z_4^9$	Chain + Chain	2226	24621	$\mathbb{Z}^{14} \oplus \mathbb{Z}_2$
(189,21,560,163,769)	$z_0^9 + z_0 z_1^{72} + z_1 z_2^3 + z_2 z_3^7 + z_3 z_4^2$	Chain	1701	14912	$\mathbb{Z}^8 \oplus \mathbb{Z}_{27} \oplus (\mathbb{Z}_3)^7$
(1649,194,2463,621,21)	$z_0^3 + z_0 z_1^{17} + z_4 z_2^2 + z_2 z_3^4 + z_3 z_4^{206}$	Chain + Cycle	4947	80752	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{97}$
(1673,21,714,205,2407)	$z_0^3 + z_1^{239} + z_1 z_2^7 + z_2 z_3^{21} + z_3 z_4^2$	BP + Chain	5019	73136	$\mathbb{Z}^{14} \oplus (\mathbb{Z}_3)^7$
(21,245,742,212,1007)	$z_0^{106} + z_0 z_1^9 + z_2^3 + z_2 z_3^7 + z_3 z_4^2$	Chain + Chain	2226	19527	$\mathbb{Z}^{14} \oplus \mathbb{Z}_2$
(2736,684,21,1817,215)	$z_0^2 + z_0 z_1^4 + z_1 z_2^{228} + z_2 z_3^3 + z_3 z_4^{17}$	Chain	5472	89369	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{456}$
(632,632,237,21,375)	$z_0^3 + z_1^3 + z_2^8 + z_2 z_3^{79} + z_3 z_4^5$	BP + Chain	1896	10140	$\mathbb{Z}^8 \oplus (\mathbb{Z}_8)^2$
(695,695,417,258,21)	$z_0^3 + z_1^3 + z_2^5 + z_4 z_3^8 + z_3 z_4^{87}$	BP + Cycle	2085	11136	$\mathbb{Z}^8 \oplus (\mathbb{Z}_5)^2$
(299,598,917,21,259)	$z_0^7 + z_0 z_1^3 + z_4 z_2^2 + z_2 z_3^{56} + z_3 z_4^8$	Chain + Cycle	2093	13440	$\mathbb{Z}^6 \oplus (\mathbb{Z}_{299})^3$
(21,339,1476,1097,1835)	$z_0^{227} + z_0 z_1^{14} + z_1 z_2^3 + z_2 z_3^3 + z_3 z_4^2$	Chain	4767	35184	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{227}$
(21,2583,1729,494,361)	$z_0^{247} + z_0 z_1^2 + z_2^3 + z_2 z_3^7 + z_3 z_4^{13}$	Chain + Chain	5187	62992	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{39} \oplus \mathbb{Z}_3$
(21,2002,805,373,2827)	$z_0^{287} + z_0 z_1^3 + z_1 z_2^5 + z_2 z_3^{14} + z_3 z_4^2$	Chain	6027	64000	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{287}$
(21,735,1232,457,1987)	$z_0^{211} + z_0 z_1^6 + z_1 z_2^3 + z_2 z_3^7 + z_3 z_4^2$	Chain	4431	29328	$\mathbb{Z}^6 \oplus \mathbb{Z}_{633} \oplus (\mathbb{Z}_3)^5$
(3801,21,2527,725,529)	$z_0^2 + z_0 z_1^{181} + z_1 z_2^3 + z_2 z_3^7 + z_3 z_4^{13}$	Chain	7602	91949	$\mathbb{Z}^{12} \oplus \mathbb{Z}_6$
(22,319,30,105,185)	$z_0^{30} + z_0 z_1^2 + z_2^{22} + z_2 z_3^6 + z_3 z_4^3$	Chain + Chain	660	8835	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{132} \oplus (\mathbb{Z}_3)^2$
(35,175,121,33,22)	$z_0^{11} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^8 + z_3 z_4^{16}$	Chain + Cycle	385	4608	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{35})^2$
(198,22,385,37,151)	$z_0^4 + z_0 z_1^{27} + z_1 z_2^2 + z_2 z_3^{11} + z_3 z_4^5$	Chain	792	9615	$\mathbb{Z}^{12} \oplus \mathbb{Z}_8 \oplus (\mathbb{Z}_2)^2$
(41,205,41,143,22)	$z_0^{11} + z_0 z_1^2 + z_1 z_2^6 + z_4 z_3^3 + z_3 z_4^{14}$	Chain + Cycle	451	5040	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{11})^2$
(51,357,22,550,143)	$z_0^{22} + z_0 z_1^3 + z_2^{51} + z_2 z_3^2 + z_3 z_4^4$	Chain + Chain	1122	16020	$\mathbb{Z}^{14} \oplus (\mathbb{Z}_{102})^2 \oplus \mathbb{Z}_{51}$
(57,285,209,22,55)	$z_0^{11} + z_0 z_1^2 + z_2^3 + z_2 z_3^{19} + z_3 z_4^{11}$	Chain + Chain	627	6864	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_3)^2$
(289,195,22,73,101)	$z_4 z_0^2 + z_0 z_1^2 + z_1 z_2^{22} + z_2 z_3^9 + z_3 z_4^6$	Cycle	679	4752	$\mathbb{Z}^6 \oplus \mathbb{Z}_{679}$
(22,198,803,73,511)	$z_0^{73} + z_0 z_1^8 + z_2^2 + z_2 z_3^{11} + z_3 z_4^3$	Chain + Chain	1606	23040	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_2)^8$
(73,511,22,396,605)	$z_0^{22} + z_0 z_1^3 + z_2^{73} + z_2 z_3^4 + z_3 z_4^2$	Chain + Chain	1606	16380	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{146})^3 \oplus \mathbb{Z}_2$
(575,115,345,94,22)	$z_0^2 + z_0 z_1^5 + z_1 z_2^3 + z_4 z_3^{12} + z_3 z_4^{48}$	Chain + Cycle	1150	12096	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_2)^2$
(175,525,401,103,22)	$z_0^7 + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^8 + z_3 z_4^{51}$	Chain + Cycle	1225	9792	$\mathbb{Z}^6 \oplus \mathbb{Z}_{1225} \oplus \mathbb{Z}_{175}$
(429,429,22,115,293)	$z_0^2 + z_0 z_1^2 + z_1 z_2^{22} + z_2 z_3^9 + z_3 z_4^6$	Chain	1287	7952	$\mathbb{Z}^6 \oplus \mathbb{Z}_{117} \oplus \mathbb{Z}_{39}$
(451,123,1517,1045,22)	$z_0^7 + z_0 z_1^{22} + z_1 z_2^2 + z_4 z_3^3 + z_3 z_4^{96}$	Chain + Cycle	3157	46080	$\mathbb{Z}^{22} \oplus \mathbb{Z}_7$
(22,1188,1793,271,1501)	$z_0^{217} + z_0 z_1^4 + z_1 z_2^2 + z_2 z_3^{11} + z_3 z_4^3$	Chain	4774	39276	$\mathbb{Z}^8 \oplus \mathbb{Z}_{434} \oplus (\mathbb{Z}_2)^3$
(207,23,23,126,36)	$z_0^2 + z_1^{18} + z_2^{18} + z_4 z_3^3 + z_3 z_4^8$	BP + Cycle	414	6936	$\mathbb{Z}^{32} \oplus (\mathbb{Z}_2)^2$

Weights	Polynomial	Type	d	$\mu$	$H_3(M, \mathbb{Z})$
(25,275,23,92,161)	$z_0^{23} + z_0 z_1^2 + z_2^{25} + z_2 z_3^6 + z_3 z_4^3$	Chain + Chain	575	7776	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{25})^2$
(25,275,115,23,138)	$z_0^{23} + z_0 z_1^2 + z_2^5 + z_2 z_3^{20} + z_3 z_4^4$	Chain + Chain	575	7296	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_5)^2$
(163,31,106,27,23)	$z_4 z_0^2 + z_0 z_1^6 + z_1 z_2^3 + z_2 z_3^9 + z_3 z_4^{14}$	Cycle	349	4536	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{349}$
(23,299,27,99,174)	$z_0^{27} + z_0 z_1^2 + z_2^{23} + z_2 z_3^6 + z_3 z_4^3$	Chain + Chain	621	8344	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{69})^2$
(23,575,378,159,39)	$z_0^{51} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^5 + z_3 z_4^{26}$	Chain + Cycle	1173	20280	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{391} \oplus \mathbb{Z}_{23}$
(105,105,42,23,251)	$z_0^5 + z_0 z_1^4 + z_1 z_2^{10} + z_2 z_3^{21} + z_3 z_4^2$	Chain	525	4384	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{25} \oplus (\mathbb{Z}_5)^3$
(23,322,43,473,129)	$z_0^{43} + z_0 z_1^3 + z_2^{23} + z_2 z_3^2 + z_3 z_4^4$	Chain + Chain	989	13920	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_{23})^3$
(85,255,181,23,52)	$z_0^7 + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^{18} + z_3 z_4^{11}$	Chain + Cycle	595	4752	$\mathbb{Z}^6 \oplus \mathbb{Z}_{595} \oplus \mathbb{Z}_{85}$
(63,63,210,23,335)	$z_0^{11} + z_0 z_1^{10} + z_1 z_2^3 + z_2 z_3^{21} + z_3 z_4^2$	Chain	693	7160	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{33} \oplus (\mathbb{Z}_3)^9$
(68,714,23,491,201)	$z_0^{22} + z_0 z_1^2 + z_1 z_2^{34} + z_2 z_3^3 + z_3 z_4^5$	Chain	1496	19425	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{748}$
(71,781,23,322,437)	$z_0^{23} + z_0 z_1^2 + z_2^{71} + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	1633	18720	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{71})^2$
(761,23,660,79,481)	$z_4 z_0^2 + z_0 z_1^{54} + z_1 z_2^3 + z_2 z_3^{17} + z_3 z_4^4$	Cycle	2003	22032	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{2003}$
(1044,522,87,23,413)	$z_0^2 + z_0 z_1^2 + z_1 z_2^{18} + z_2 z_3^{87} + z_3 z_4^5$	Chain	2088	25125	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{12}$
(675,270,967,23,91)	$z_0^3 + z_0 z_1^5 + z_4 z_2^2 + z_2 z_3^{46} + z_3 z_4^{22}$	Chain + Cycle	2025	26312	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{405}$
(405,540,967,23,91)	$z_0^5 + z_0 z_1^3 + z_4 z_2^2 + z_2 z_3^{46} + z_3 z_4^{22}$	Chain + Cycle	2025	22264	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{675}$
(363,23,100,241,97)	$z_4 z_0^2 + z_0 z_1^{20} + z_1 z_2^8 + z_2 z_3^3 + z_3 z_4^6$	Cycle	823	5760	$\mathbb{Z}^6 \oplus \mathbb{Z}_{823}$
(825,550,1501,127,23)	$z_1 z_0^3 + z_0 z_1^4 + z_4 z_2^2 + z_2 z_3^{12} + z_3 z_4^{126}$	Cycle + Cycle	3025	36288	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{3025} \oplus \mathbb{Z}_{275}$
(1197,23,836,339,137)	$z_4 z_0^2 + z_0 z_1^{58} + z_1 z_2^3 + z_2 z_3^5 + z_3 z_4^{16}$	Cycle	2531	27840	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{2531}$
(161,23,552,245,147)	$z_0^7 + z_0 z_1^{42} + z_1 z_2^2 + z_4 z_3^4 + z_3 z_4^6$	Chain + Cycle	1127	7200	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_7)^2$
(23,1311,172,946,1505)	$z_0^{172} + z_0 z_1^3 + z_2^{23} + z_2 z_3^4 + z_3 z_4^2$	Chain + Chain	3956	39330	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{46})^2 \oplus \mathbb{Z}_{23}$
(23,2231,1127,845,260)	$z_0^{195} + z_0 z_1^2 + z_1 z_2^2 + z_4 z_3^5 + z_3 z_4^{14}$	Chain + Cycle	4485	40880	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{195} \oplus \mathbb{Z}_{65}$
(301,3311,989,23,2300)	$z_0^{23} + z_0 z_1^2 + z_2^7 + z_2 z_3^{258} + z_3 z_4^3$	Chain + Chain	6923	86832	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_7)^2$
(1700,340,1031,23,307)	$z_0^2 + z_1^{10} + z_4 z_2^3 + z_2 z_3^{103} + z_3 z_4^{11}$	BP + Cycle	3400	30591	$\mathbb{Z}^8 \oplus \mathbb{Z}_{680}$
(680,1360,1031,23,307)	$z_0^5 + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^{103} + z_3 z_4^{11}$	Chain + Cycle	3400	20394	$\mathbb{Z}^4 \oplus \mathbb{Z}_{3400} \oplus \mathbb{Z}_{680}$
(23,3611,315,2310,987)	$z_0^{315} + z_0 z_1^2 + z_2^{23} + z_2 z_3^3 + z_3 z_4^5$	Chain + Chain	7245	94168	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{115} \oplus \mathbb{Z}_{23}$
(325,1040,23,2751,1387)	$z_0^{17} + z_0 z_1^5 + z_1 z_2^{195} + z_2 z_3^2 + z_3 z_4^2$	Chain	5525	49656	$\mathbb{Z}^8 \oplus \mathbb{Z}_{1105}$
(393,4323,3013,23,1288)	$z_0^{23} + z_0 z_1^2 + z_2^3 + z_2 z_3^{262} + z_3 z_4^7$	Chain + Chain	9039	113232	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_3)^2$
(3556,1778,1339,23,417)	$z_0^2 + z_1^4 + z_4 z_2^5 + z_2 z_3^{251} + z_3 z_4^{17}$	BP + Cycle	7112	64005	$\mathbb{Z}^8 \oplus \mathbb{Z}_{3556}$
(1892,602,6321,23,4407)	$z_0^7 + z_1^{22} + z_1 z_2^2 + z_2 z_3^{301} + z_3 z_4^3$	BP + Chain	13244	159066	$\mathbb{Z}^{12} \oplus \mathbb{Z}_7$
(7337,23,637,4679,1999)	$z_0^2 + z_0 z_1^{319} + z_1 z_2^{23} + z_2 z_3^3 + z_3 z_4^5$	Chain	14674	190125	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{46}$
(5764,786,8253,23,2467)	$z_0^3 + z_1^{22} + z_1 z_2^2 + z_2 z_3^{393} + z_3 z_4^7$	BP + Chain	17292	207550	$\mathbb{Z}^{12} \oplus \mathbb{Z}_3$
(305,61,427,99,24)	$z_0^3 + z_0 z_1^{10} + z_1 z_2^2 + z_4 z_3^9 + z_3 z_4^{34}$	Chain + Cycle	915	9792	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_3)^2$
(281,281,195,24,63)	$z_0^3 + z_1^3 + z_4 z_2^4 + z_2 z_3^{27} + z_3 z_4^{13}$	BP + Cycle	843	5616	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{281})^2$
(333,111,24,65,467)	$z_0^3 + z_0 z_1^6 + z_1 z_2^{37} + z_2 z_3^{15} + z_3 z_4^2$	Chain	999	10640	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{111} \oplus \mathbb{Z}_{37}$
(552,24,135,323,71)	$z_0^2 + z_0 z_1^{23} + z_1 z_2^8 + z_2 z_3^3 + z_3 z_4^{11}$	Chain	1104	11363	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{16}$

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(305,305,183,99,24)	$z_0^3 + z_1^3 + z_2^5 + z_4 z_3^9 + z_3 z_4^{34}$	BP + Cycle	915	4896	$\mathbb{Z}^8 \oplus (\mathbb{Z}_5)^2$
(24,1968,165,1265,539)	$z_0^{165} + z_0 z_1^2 + z_2^{24} + z_2 z_3^3 + z_3 z_4^5$	Chain + Chain	3960	51626	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{120} \oplus \mathbb{Z}_8$
(372,24,273,281,167)	$z_0^3 + z_0 z_1^{31} + z_1 z_2^4 + z_2 z_3^3 + z_3 z_4^5$	Chain	1116	4745	$\mathbb{Z}^4 \oplus \mathbb{Z}_{12}$
(24,2100,177,1349,575)	$z_0^{176} + z_0 z_1^2 + z_1 z_2^{12} + z_2 z_3^3 + z_3 z_4^5$	Chain	4224	54735	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{704}$
(4008,24,333,2561,1091)	$z_0^2 + z_0 z_1^{167} + z_1 z_2^{24} + z_2 z_3^3 + z_3 z_4^5$	Chain	8016	103875	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{16}$
(24,570,867,479,365)	$z_0^{96} + z_0 z_1^4 + z_1 z_2^2 + z_2 z_3^3 + z_3 z_4^5$	Chain	2304	9695	$\mathbb{Z}^4 \oplus \mathbb{Z}_{192}$
(32,160,109,27,25)	$z_0^{11} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^9 + z_3 z_4^{13}$	Chain + Cycle	352	4212	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{352} \oplus \mathbb{Z}_{32}$
(25,35,55,29,57)	$z_0^8 + z_0 z_1^5 + z_1 z_2^3 + z_2 z_3^5 + z_3 z_4^3$	Chain	200	1287	$\mathbb{Z}^8 \oplus \mathbb{Z}_8$
(243,81,352,29,25)	$z_0^3 + z_1^9 + z_4 z_2^2 + z_2 z_3^{13} + z_3 z_4^{28}$	BP + Cycle	729	11648	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{243} \oplus \mathbb{Z}_{81}$
(377,31,322,25,243)	$z_4 z_0^2 + z_0 z_1^{20} + z_1 z_2^3 + z_2 z_3^{27} + z_3 z_4^4$	Cycle	997	12960	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{997}$
(421,619,161,38,25)	$z_0^3 + z_4 z_1^2 + z_1 z_2^4 + z_2 z_3^{29} + z_3 z_4^{49}$	BP + Cycle	1263	22736	$\mathbb{Z}^{18} \oplus \mathbb{Z}_3$
(38,228,475,25,185)	$z_0^{25} + z_0 z_1^4 + z_2^2 + z_2 z_3^{19} + z_3 z_4^5$	Chain + Chain	950	11628	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{10} \oplus (\mathbb{Z}_2)^3$
(25,185,38,456,247)	$z_0^{38} + z_0 z_1^5 + z_2^{25} + z_2 z_3^2 + z_3 z_4^2$	Chain + Chain	950	11322	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{10} \oplus \mathbb{Z}_2$
(39,312,25,475,125)	$z_0^{25} + z_0 z_1^3 + z_2^{39} + z_2 z_3^2 + z_3 z_4^4$	Chain + Chain	975	13872	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_{39})^3$
(77,154,85,25,45)	$z_0^5 + z_0 z_1^2 + z_4 z_2^4 + z_2 z_3^{12} + z_3 z_4^8$	Chain + Cycle	385	2304	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{77})^2$
(52,624,25,425,175)	$z_0^{25} + z_0 z_1^2 + z_2^{52} + z_2 z_3^3 + z_3 z_4^5$	Chain + Chain	1300	17550	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{52})^2$
(59,253,139,56,25)	$z_0^9 + z_4 z_1^2 + z_1 z_2^2 + z_2 z_3^7 + z_3 z_4^{19}$	BP + Cycle	531	4256	$\mathbb{Z}^8 \oplus \mathbb{Z}_9$
(392,56,253,59,25)	$z_0^2 + z_1^{14} + z_4 z_2^3 + z_2 z_3^9 + z_3 z_4^{29}$	BP + Cycle	784	10179	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{112}$
(57,285,95,25,109)	$z_0^{10} + z_1^2 + z_1 z_2^3 + z_2 z_3^{19} + z_3 z_4^5$	BP + Chain	570	4149	$\mathbb{Z}^8 \oplus \mathbb{Z}_6$
(112,336,253,59,25)	$z_0^7 + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^9 + z_3 z_4^{29}$	Chain + Cycle	784	6264	$\mathbb{Z}^6 \oplus \mathbb{Z}_{784} \oplus \mathbb{Z}_{112}$
(62,744,25,305,415)	$z_0^{25} + z_0 z_1^2 + z_2^{62} + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	1550	17706	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{62})^2$
(25,275,115,92,69)	$z_0^{23} + z_0 z_1^2 + z_2^5 + z_2 z_3^5 + z_3 z_4^7$	Chain + Chain	575	3696	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_5)^2$
(69,207,575,25,850)	$z_0^{25} + z_0 z_1^8 + z_2^3 + z_2 z_3^{46} + z_3 z_4^2$	Chain + Chain	1725	24640	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_3)^8$
(94,282,1175,25,775)	$z_0^{25} + z_0 z_1^8 + z_2^2 + z_2 z_3^{47} + z_3 z_4^3$	Chain + Chain	2350	33264	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_2)^8$
(25,775,94,564,893)	$z_0^{94} + z_0 z_1^3 + z_2^{25} + z_2 z_3^4 + z_3 z_4^2$	Chain + Chain	2350	23436	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{50})^3 \oplus \mathbb{Z}_2$
(114,228,95,25,109)	$z_0^5 + z_0 z_1^2 + z_2^6 + z_2 z_3^{19} + z_3 z_4^5$	Chain + Chain	570	2766	$\mathbb{Z}^4 \oplus \mathbb{Z}_{30} \oplus \mathbb{Z}_6$
(119,238,119,95,25)	$z_0^5 + z_0 z_1^2 + z_1 z_2^3 + z_4 z_3^6 + z_3 z_4^{20}$	Chain + Cycle	595	2880	$\mathbb{Z}^8 \oplus (\mathbb{Z}_5)^2$
(25,380,103,911,507)	$z_0^{77} + z_0 z_1^5 + z_1 z_2^{15} + z_2 z_3^2 + z_3 z_4^2$	Chain	1925	17016	$\mathbb{Z}^8 \oplus \mathbb{Z}_{385}$
(253,253,115,25,620)	$z_0^5 + z_1^5 + z_2^{11} + z_2 z_3^{46} + z_3 z_4^2$	BP + Chain	1265	8256	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{11})^4$
(639,639,142,25,473)	$z_0^3 + z_0 z_1^2 + z_1 z_2^9 + z_2 z_3^{71} + z_3 z_4^4$	Chain	1917	11552	$\mathbb{Z}^6 \oplus \mathbb{Z}_{27} \oplus \mathbb{Z}_9$
(25,185,190,152,399)	$z_0^{38} + z_0 z_1^5 + z_2^5 + z_2 z_3^5 + z_3 z_4^2$	Chain + Chain	950	4437	$\mathbb{Z}^8 \oplus \mathbb{Z}_2$
(155,1395,25,584,787)	$z_0^{19} + z_0 z_1^2 + z_1 z_2^{62} + z_2 z_3^5 + z_3 z_4^3$	Chain	2945	25896	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{589} \oplus \mathbb{Z}_{31}$
(611,2444,188,25,1621)	$z_0^8 + z_1^2 + z_1 z_2^{13} + z_2 z_3^{188} + z_3 z_4^3$	BP + Chain	4888	68607	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{104}$
(1222,1833,188,25,1621)	$z_0^4 + z_0 z_1^2 + z_2^{26} + z_2 z_3^{188} + z_3 z_4^3$	Chain + Chain	4888	49005	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{52}$
(1195,239,717,215,25)	$z_0^2 + z_0 z_1^5 + z_1 z_2^3 + z_4 z_3^{11} + z_3 z_4^{87}$	Chain + Cycle	2390	20097	$\mathbb{Z}^{12} \oplus \mathbb{Z}_2$

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(1195,478,478,215,25)	$z_0^2 + z_1^5 + z_2^5 + z_4 z_3^{11} + z_3 z_4^{87}$	BP + Cycle	2390	15312	$\mathbb{Z}^8 \oplus (\mathbb{Z}_2)^4$
(478,956,717,215,25)	$z_0^5 + z_0 z_1^2 + z_1 z_2^2 + z_4 z_3^{11} + z_3 z_4^{87}$	Chain + Cycle	2390	13398	$\mathbb{Z}^4 \oplus (\mathbb{Z}_{10})^2 \oplus \mathbb{Z}_5$
(752,1504,235,25,1245)	$z_0^5 + z_0 z_1^2 + z_2^{16} + z_2 z_3^{141} + z_3 z_4^3$	Chain + Chain	3760	27162	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{16})^2$
(2288,286,3289,25,977)	$z_0^3 + z_0 z_1^{16} + z_1 z_2^2 + z_2 z_3^{143} + z_3 z_4^7$	Chain	6864	82418	$\mathbb{Z}^{12} \oplus \mathbb{Z}_6 \oplus \mathbb{Z}_2$
(1233,25,877,332,1067)	$z_4 z_0^2 + z_0 z_1^{92} + z_1 z_2^4 + z_2 z_3^8 + z_3 z_4^3$	Cycle	3533	17664	$\mathbb{Z}^4 \oplus \mathbb{Z}_{3533}$
(1837,334,2195,25,1455)	$z_1 z_0^3 + z_0 z_1^{12} + z_4 z_2^2 + z_2 z_3^{146} + z_3 z_4^4$	Cycle + Cycle	5845	42048	$\mathbb{Z}^6 \oplus \mathbb{Z}_{1169} \oplus \mathbb{Z}_{167}$
(1795,1077,2154,335,25)	$z_0^3 + z_1^5 + z_1 z_2^2 + z_4 z_3^{16} + z_3 z_4^{202}$	BP+ Chain + Cycle	5385	38784	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_3)^2$
(2139,2852,345,25,5335)	$z_0^5 + z_0 z_1^3 + z_2^{31} + z_2 z_3^{414} + z_3 z_4^2$	Chain + Chain	10695	141504	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{31}$
(25,6025,1725,414,3887)	$z_0^{483} + z_0 z_1^2 + z_2^7 + z_2 z_3^{25} + z_3 z_4^3$	Chain + Chain	12075	172304	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{21}$
(1901,25,1069,808,499)	$z_4 z_0^2 + z_0 z_1^{96} + z_1 z_2^4 + z_2 z_3^4 + z_3 z_4^7$	Cycle	4301	21504	$\mathbb{Z}^4 \oplus \mathbb{Z}_{4301}$
(621,2277,506,25,3403)	$z_0^{11} + z_1^3 + z_1 z_2^9 + z_2 z_3^{253} + z_3 z_4^2$	BP + Chain	6831	68560	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{11}$
(10785,4314,5752,695,25)	$z_0^2 + z_1^5 + z_1 z_2^3 + z_4 z_3^{31} + z_3 z_4^{835}$	BP+ Chain + Cycle	21570	284735	$\mathbb{Z}^{18} \oplus \mathbb{Z}_2$
(10775,25,3075,739,6937)	$z_0^2 + z_0 z_1^{431} + z_1 z_2^7 + z_2 z_3^{25} + z_3 z_4^3$	Chain	21550	306873	$\mathbb{Z}^{20} \oplus \mathbb{Z}_2$
(6453,4302,956,25,1171)	$z_0^2 + z_1^3 + z_1 z_2^9 + z_2 z_3^{478} + z_3 z_4^{11}$	BP + Chain	12906	129085	$\mathbb{Z}^{10} \oplus \mathbb{Z}_2$
(39,117,26,28,181)	$z_0^{10} + z_0 z_1^3 + z_2^{15} + z_2 z_3^{13} + z_3 z_4^2$	Chain + Chain	390	4389	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{30} \oplus (\mathbb{Z}_3)^2$
(105,63,30,26,197)	$z_0^4 + z_0 z_1^5 + z_2^{14} + z_2 z_3^{15} + z_3 z_4^2$	Chain + Chain	420	3791	$\mathbb{Z}^8 \oplus \mathbb{Z}_{140}$
(26,234,481,37,185)	$z_0^{37} + z_0 z_1^4 + z_2^2 + z_2 z_3^{13} + z_3 z_4^5$	Chain + Chain	962	11760	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_2)^4$
(37,185,26,468,247)	$z_0^{26} + z_0 z_1^5 + z_2^{37} + z_2 z_3^2 + z_3 z_4^2$	Chain + Chain	962	11550	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{74})^2 \oplus (\mathbb{Z}_{37})^3$
(405,81,243,56,26)	$z_0^2 + z_0 z_1^5 + z_1 z_2^3 + z_4 z_3^{14} + z_3 z_4^{29}$	Chain + Cycle	810	8526	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_2)^2$
(343,98,26,673,233)	$z_0^4 + z_1^{14} + z_1 z_2^{49} + z_2 z_3^2 + z_3 z_4^3$	BP + Chain	1372	10251	$\mathbb{Z}^6 \oplus \mathbb{Z}_{196}$
(2366,26,181,1517,643)	$z_0^2 + z_0 z_1^{91} + z_1 z_2^{26} + z_2 z_3^3 + z_3 z_4^5$	Chain	4732	61335	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{52}$
(26,212,1285,499,761)	$z_0^{107} + z_0 z_1^{13} + z_1 z_2^2 + z_2 z_3^3 + z_3 z_4^3$	Chain	2782	18189	$\mathbb{Z}^6 \oplus \mathbb{Z}_{214}$
(26,2340,1183,271,887)	$z_0^{181} + z_0 z_1^2 + z_1 z_2^2 + z_2 z_3^{13} + z_3 z_4^5$	Chain	4706	38190	$\mathbb{Z}^8 \oplus \mathbb{Z}_{362} \oplus \mathbb{Z}_2$
(5837,26,1664,385,3763)	$z_0^2 + z_1^{449} + z_1 z_2^7 + z_2 z_3^{26} + z_3 z_4^3$	BP + Chain	11674	166131	$\mathbb{Z}^{14} \oplus (\mathbb{Z}_2)^7$
(297,27,108,29,431)	$z_0^3 + z_0 z_1^{22} + z_1 z_2^8 + z_2 z_3^{27} + z_3 z_4^2$	Chain	891	14720	$\mathbb{Z}^{30} \oplus \mathbb{Z}_3$
(27,30,179,97,235)	$z_0^{21} + z_0 z_1^{18} + z_1 z_2^3 + z_2 z_3^4 + z_3 z_4^2$	Chain	567	5312	$\mathbb{Z}^8 \oplus \mathbb{Z}_{63} \oplus \mathbb{Z}_3$
(209,209,33,27,150)	$z_0^3 + z_1^3 + z_2^{19} + z_2 z_3^{22} + z_3 z_4^4$	BP + Chain	627	5088	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{19})^2$
(34,238,51,27,161)	$z_0^{15} + z_0 z_1^2 + z_2^{10} + z_2 z_3^{17} + z_3 z_4^3$	Chain + Chain	510	5584	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{30} \oplus \mathbb{Z}_2$
(27,297,34,442,119)	$z_0^{34} + z_0 z_1^3 + z_2^{27} + z_2 z_3^2 + z_3 z_4^4$	Chain + Chain	918	12972	$\mathbb{Z}^{14} \oplus (\mathbb{Z}_{54})^2 \oplus \mathbb{Z}_{27}$
(27,117,204,35,347)	$z_0^{27} + z_0 z_1^6 + z_1 z_2^3 + z_2 z_3^{15} + z_3 z_4^2$	Chain	729	7640	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{81} \oplus \mathbb{Z}_3$
(35,182,27,459,243)	$z_0^{27} + z_0 z_1^5 + z_2^{35} + z_2 z_3^2 + z_3 z_4^2$	Chain + Chain	945	11336	$\mathbb{Z}^{14} \oplus \mathbb{Z}_7$
(27,36,141,53,203)	$z_0^{17} + z_0 z_1^{12} + z_1 z_2^3 + z_2 z_3^6 + z_3 z_4^2$	Chain	459	4096	$\mathbb{Z}^8 \oplus \mathbb{Z}_{51} \oplus (\mathbb{Z}_3)^3$
(41,111,44,27,65)	$z_0^7 + z_4 z_1^2 + z_1 z_2^4 + z_2 z_3^9 + z_3 z_4^4$	BP + Cycle	287	1728	$\mathbb{Z}^6 \oplus \mathbb{Z}_7$
(209,44,531,279,27)	$z_1 z_0^5 + z_0 z_1^{20} + z_4 z_2^2 + z_2 z_3^2 + z_3 z_4^{30}$	Cycle + Cycle	1089	12000	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{121} \oplus \mathbb{Z}_{11}$
(47,611,27,414,171)	$z_0^{27} + z_0 z_1^2 + z_2^{47} + z_2 z_3^3 + z_3 z_4^5$	Chain + Chain	1269	17080	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_{47})^2$

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(297,27,96,53,419)	$z_0^3 + z_0 z_1^{22} + z_1 z_2^9 + z_2 z_3^{15} + z_3 z_4^2$	Chain	891	9440	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{27} \oplus \mathbb{Z}_9$
(56,728,27,297,405)	$z_0^{27} + z_0 z_1^2 + z_2^{56} + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	1512	17220	$\mathbb{Z}^{20} \oplus (\mathbb{Z}_{56})^2$
(57,228,27,119,311)	$z_0^{13} + z_0 z_1^3 + z_1 z_2^{19} + z_2 z_3^6 + z_3 z_4^2$	Chain	741	5160	$\mathbb{Z}^6 \oplus \mathbb{Z}_{247} \oplus (\mathbb{Z}_{19})^2$
(317,317,231,60,27)	$z_0^3 + z_1^3 + z_4 z_2^4 + z_2 z_3^{12} + z_3 z_4^{33}$	BP + Cycle	951	6336	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{317})^2$
(534,356,623,63,27)	$z_0^3 + z_0 z_1^3 + z_1 z_2^2 + z_4 z_3^{25} + z_3 z_4^{57}$	Chain + Cycle	1602	15675	$\mathbb{Z}^8 \oplus \mathbb{Z}_6 \oplus (\mathbb{Z}_3)^8$
(68,102,357,27,263)	$z_0^{12} + z_1^8 + z_1 z_2^2 + z_2 z_3^{17} + z_3 z_4^3$	BP + Chain	816	6083	$\mathbb{Z}^8 \oplus \mathbb{Z}_8 \oplus (\mathbb{Z}_2)^2$
(27,297,102,68,425)	$z_0^{34} + z_0 z_1^3 + z_2^9 + z_2 z_3^{12} + z_3 z_4^2$	Chain + Chain	918	8004	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{18})^3 \oplus \mathbb{Z}_2$
(68,221,918,27,603)	$z_0^{27} + z_0 z_1^8 + z_2^2 + z_2 z_3^{34} + z_3 z_4^3$	Chain + Chain	1836	26030	$\mathbb{Z}^{16} \oplus \mathbb{Z}_3$
(27,603,68,442,697)	$z_0^{68} + z_0 z_1^3 + z_2^{27} + z_2 z_3^4 + z_3 z_4^2$	Chain + Chain	1836	18358	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{18} \oplus \mathbb{Z}_2$
(27,999,75,650,275)	$z_0^{75} + z_0 z_1^2 + z_2^{27} + z_2 z_3^3 + z_3 z_4^5$	Chain + Chain	2025	26600	$\mathbb{Z}^{18} \oplus \mathbb{Z}_{27} \oplus \mathbb{Z}_9$
(165,110,77,117,27)	$z_0^3 + z_0 z_1^3 + z_1 z_2^5 + z_4 z_3^4 + z_3 z_4^{14}$	Chain + Cycle	495	2128	$\mathbb{Z}^4 \oplus \mathbb{Z}_{15} \oplus \mathbb{Z}_3$
(27,378,87,179,491)	$z_0^{43} + z_0 z_1^3 + z_1 z_2^9 + z_2 z_3^6 + z_3 z_4^2$	Chain	1161	8040	$\mathbb{Z}^6 \oplus \mathbb{Z}_{387} \oplus (\mathbb{Z}_9)^2$
(27,135,414,92,575)	$z_0^{46} + z_0 z_1^9 + z_2^3 + z_2 z_3^9 + z_3 z_4^2$	Chain + Chain	1242	10701	$\mathbb{Z}^8 \oplus \mathbb{Z}_6 \oplus (\mathbb{Z}_3)^8$
(27,729,495,110,125)	$z_0^{55} + z_0 z_1^2 + z_2^3 + z_2 z_3^9 + z_3 z_4^{11}$	Chain + Chain	1485	15232	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{33} \oplus \mathbb{Z}_3$
(27,243,414,119,683)	$z_0^{55} + z_0 z_1^6 + z_1 z_2^3 + z_2 z_3^9 + z_3 z_4^2$	Chain	1485	9624	$\mathbb{Z}^6 \oplus \mathbb{Z}_{165} \oplus (\mathbb{Z}_3)^5$
(119,1547,459,27,1062)	$z_0^{27} + z_0 z_1^2 + z_2^7 + z_2 z_3^{102} + z_3 z_4^3$	Chain + Chain	3213	40152	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{21})^2 \oplus (\mathbb{Z}_3)^4$
(27,351,120,437,497)	$z_0^{53} + z_0 z_1^4 + z_1 z_2^9 + z_2 z_3^3 + z_3 z_4^2$	Chain	1431	7472	$\mathbb{Z}^4 \oplus \mathbb{Z}_{477} \oplus (\mathbb{Z}_9)^3$
(800,160,493,27,121)	$z_0^2 + z_1^{10} + z_4 z_2^3 + z_2 z_3^{41} + z_3 z_4^{13}$	BP + Cycle	1600	14391	$\mathbb{Z}^8 \oplus \mathbb{Z}_{320}$
(320,640,493,27,121)	$z_0^5 + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^{41} + z_3 z_4^{13}$	Chain + Cycle	1600	9594	$\mathbb{Z}^4 \oplus \mathbb{Z}_{1600} \oplus \mathbb{Z}_{320}$
(125,1000,425,27,1549)	$z_0^{25} + z_0 z_1^3 + z_1 z_2^5 + z_2 z_3^{100} + z_3 z_4^2$	Chain	3125	37824	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{125} \oplus (\mathbb{Z}_5)^2$
(170,680,153,27,501)	$z_0^9 + z_0 z_1^2 + z_2^{10} + z_2 z_3^{51} + z_3 z_4^3$	Chain + Chain	1530	10290	$\mathbb{Z}^6 \oplus (\mathbb{Z}_{30})^2 \oplus \mathbb{Z}_3$
(27,594,1395,155,2015)	$z_0^{155} + z_0 z_1^7 + z_2^3 + z_2 z_3^{18} + z_3 z_4^2$	Chain + Chain	4185	52136	$\mathbb{Z}^{14} \oplus (\mathbb{Z}_3)^7$
(164,656,423,27,207)	$z_0^9 + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^{39} + z_3 z_4^7$	Chain + Cycle	1476	8190	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{164})^2$
(1470,294,27,971,179)	$z_0^2 + z_0 z_1^5 + z_1 z_2^{98} + z_2 z_3^3 + z_3 z_4^{11}$	Chain	2940	30371	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{196}$
(699,233,932,207,27)	$z_0^3 + z_0 z_1^6 + z_1 z_2^2 + z_4 z_3^{10} + z_3 z_4^{70}$	Chain + Cycle	2097	14000	$\mathbb{Z}^8 \oplus (\mathbb{Z}_3)^4$
(319,569,27,224,457)	$z_0^5 + z_4 z_1^2 + z_1 z_2^{38} + z_2 z_3^7 + z_3 z_4^3$	BP + Cycle	1595	6384	$\mathbb{Z}^4 \oplus \mathbb{Z}_5$
(27,909,306,272,1241)	$z_0^{102} + z_0 z_1^3 + z_2^9 + z_2 z_3^9 + z_3 z_4^2$	Chain + Chain	2754	18245	$\mathbb{Z}^{12} \oplus \mathbb{Z}_6$
(282,2256,27,1589,641)	$z_0^{17} + z_0 z_1^2 + z_1 z_2^{94} + z_2 z_3^3 + z_3 z_4^5$	Chain	4794	41530	$\mathbb{Z}^8 \oplus \mathbb{Z}_{1598} \oplus \mathbb{Z}_{94}$
(1309,308,27,3259,1643)	$z_0^5 + z_0 z_1^{17} + z_1 z_2^{231} + z_2 z_3^2 + z_3 z_4^2$	Chain	6545	58824	$\mathbb{Z}^8 \oplus \mathbb{Z}_{385}$
(333,27,2100,1409,2459)	$z_0^{19} + z_0 z_1^{222} + z_1 z_2^3 + z_2 z_3^3 + z_3 z_4^2$	Chain	6327	46416	$\mathbb{Z}^6 \oplus \mathbb{Z}_{57} \oplus (\mathbb{Z}_3)^5$
(3556,1778,1417,335,27)	$z_0^2 + z_1^4 + z_4 z_2^5 + z_2 z_3^{17} + z_3 z_4^{251}$	BP + Cycle	7112	64005	$\mathbb{Z}^8 \oplus \mathbb{Z}_{3556}$
(2802,1868,3269,441,27)	$z_0^3 + z_0 z_1^3 + z_1 z_2^2 + z_4 z_3^{19} + z_3 z_4^{295}$	Chain + Cycle	8406	61655	$\mathbb{Z}^6 \oplus \mathbb{Z}_6 \oplus (\mathbb{Z}_3)^6$
(1557,27,3624,485,5207)	$z_0^7 + z_0 z_1^{346} + z_1 z_2^3 + z_2 z_3^{15} + z_3 z_4^2$	Chain	10899	113840	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{21} \oplus \mathbb{Z}_3$
(27,570,1529,907,2125)	$z_0^{191} + z_0 z_1^9 + z_1 z_2^3 + z_2 z_3^4 + z_3 z_4^2$	Chain	5157	24256	$\mathbb{Z}^4 \oplus \mathbb{Z}_{573}$
(4650,620,6665,1989,27)	$z_0^3 + z_0 z_1^{15} + z_1 z_2^2 + z_4 z_3^7 + z_3 z_4^{443}$	Chain + Cycle	13950	145747	$\mathbb{Z}^{10} \oplus \mathbb{Z}_6 \oplus (\mathbb{Z}_3)^2$

Weights	Polynomial	Type	d	$\mu$	$H_3(M, \mathbb{Z})$
(33,143,42,28,217)	$z_0^{14} + z_0 z_1^3 + z_2^{11} + z_2 z_3^{15} + z_3 z_4^2$	Chain + Chain	462	5075	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{22} \oplus (\mathbb{Z}_2)^4$
(33,297,28,448,119)	$z_0^{28} + z_0 z_1^3 + z_2^{33} + z_2 z_3^2 + z_3 z_4^4$	Chain + Chain	924	13110	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{132})^2 \oplus \mathbb{Z}_{33}$
(39,39,182,28,259)	$z_0^{14} + z_1^{14} + z_2^3 + z_2 z_3^{13} + z_3 z_4^2$	BP + Chain	546	6929	$\mathbb{Z}^{12} \oplus \mathbb{Z}_6 \oplus (\mathbb{Z}_3)^{12}$
(45,210,28,301,47)	$z_0^{14} + z_1^3 + z_1 z_2^{15} + z_2 z_3^2 + z_3 z_4^7$	BP + Chain	630	7579	$\mathbb{Z}^{12} \oplus \mathbb{Z}_2$
(47,423,28,322,497)	$z_0^{28} + z_0 z_1^3 + z_2^{47} + z_2 z_3^4 + z_3 z_4^2$	Chain + Chain	1316	13338	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{94})^2 \oplus \mathbb{Z}_{47}$
(371,53,53,238,28)	$z_0^2 + z_1^{14} + z_2^{14} + z_4 z_3^3 + z_3 z_4^{18}$	BP + Cycle	742	9126	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_2)^2$
(28,476,63,131,283)	$z_0^{35} + z_0 z_1^2 + z_1 z_2^8 + z_2 z_3^7 + z_3 z_4^3$	Chain	980	8364	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{140} \oplus \mathbb{Z}_4$
(28,896,65,585,247)	$z_0^{65} + z_0 z_1^2 + z_2^{28} + z_2 z_3^3 + z_3 z_4^5$	Chain + Chain	1820	23958	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{140})^2 \oplus \mathbb{Z}_5$
(525,75,350,28,73)	$z_0^2 + z_1^{14} + z_2^3 + z_2 z_3^{25} + z_3 z_4^{14}$	BP + Chain	1050	12701	$\mathbb{Z}^{12} \oplus \mathbb{Z}_6$
(721,411,283,28,101)	$z_4 z_0^2 + z_0 z_1^2 + z_1 z_2^4 + z_2 z_3^{45} + z_3 z_4^{15}$	Cycle	1543	10800	$\mathbb{Z}^6 \oplus \mathbb{Z}_{1543}$
(117,507,182,28,805)	$z_0^{14} + z_0 z_1^3 + z_2^9 + z_2 z_3^{52} + z_3 z_4^2$	Chain + Chain	1638	13804	$\mathbb{Z}^{10} \oplus \mathbb{Z}_6 \oplus (\mathbb{Z}_2)^3$
(175,175,28,121,377)	$z_0^5 + z_0 z_1^4 + z_1 z_2^{25} + z_2 z_3^7 + z_3 z_4^2$	Chain	875	3984	$\mathbb{Z}^4 \oplus \mathbb{Z}_{125} \oplus (\mathbb{Z}_{25})^3$
(28,2716,195,1053,1469)	$z_0^{195} + z_0 z_1^2 + z_2^{28} + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	5460	60172	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{84} \oplus \mathbb{Z}_{28}$
(28,2898,209,1123,1567)	$z_0^{208} + z_0 z_1^2 + z_1 z_2^{14} + z_2 z_3^5 + z_3 z_4^3$	Chain	5824	63855	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{2912}$
(1043,28,2461,1391,321)	$z_1 z_0^5 + z_0 z_1^{150} + z_4 z_2^2 + z_2 z_3^2 + z_3 z_4^{12}$	Cycle + Cycle	5243	36000	$\mathbb{Z}^6 \oplus \mathbb{Z}_{49} \oplus \mathbb{Z}_7$
(5488,28,391,2117,2953)	$z_0^2 + z_0 z_1^{196} + z_1 z_2^{28} + z_2 z_3^5 + z_3 z_4^3$	Chain	10976	120345	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{56}$
(77,154,89,37,29)	$z_0^5 + z_0 z_1^2 + z_4 z_2^4 + z_2 z_3^8 + z_3 z_4^{12}$	Chain + Cycle	385	2304	$\mathbb{Z}^4 \oplus \mathbb{Z}_{385} \oplus \mathbb{Z}_{77}$
(44,66,253,29,181)	$z_0^{13} + z_0 z_1^8 + z_1 z_2^2 + z_2 z_3^{11} + z_3 z_4^3$	Chain	572	4692	$\mathbb{Z}^8 \oplus \mathbb{Z}_{26} \oplus (\mathbb{Z}_2)^3$
(44,528,143,29,357)	$z_0^{25} + z_0 z_1^2 + z_1 z_2^4 + z_2 z_3^{33} + z_3 z_4^3$	Chain	1100	13374	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{100} \oplus \mathbb{Z}_4$
(45,45,54,29,143)	$z_0^7 + z_0 z_1^6 + z_1 z_2^5 + z_2 z_3^9 + z_3 z_4^2$	Chain	315	2064	$\mathbb{Z}^6 \oplus \mathbb{Z}_{35} \oplus (\mathbb{Z}_5)^5$
(45,420,29,319,493)	$z_0^{29} + z_0 z_1^3 + z_2^{45} + z_2 z_3^4 + z_3 z_4^2$	Chain + Chain	1305	13216	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{15}$
(325,118,51,157,29)	$z_4 z_0^2 + z_0 z_1^3 + z_1 z_2^{11} + z_2 z_3^4 + z_3 z_4^{18}$	Cycle	679	4752	$\mathbb{Z}^6 \oplus \mathbb{Z}_{679}$
(29,87,145,65,52)	$z_0^{13} + z_0 z_1^4 + z_1 z_2^2 + z_4 z_3^5 + z_3 z_4^6$	Chain + Cycle	377	1920	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{13})^2$
(29,522,55,385,605)	$z_0^{55} + z_0 z_1^3 + z_2^{29} + z_2 z_3^4 + z_3 z_4^2$	Chain + Chain	1595	15984	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{29})^3$
(29,667,290,60,985)	$z_0^{70} + z_0 z_1^3 + z_2^7 + z_2 z_3^{29} + z_3 z_4^2$	Chain + Chain	2030	29469	$\mathbb{Z}^{26} \oplus \mathbb{Z}_{14}$
(29,522,759,209,77)	$z_0^{55} + z_0 z_1^3 + z_4 z_2^2 + z_2 z_3^4 + z_3 z_4^{18}$	Chain + Cycle	1595	15984	$\mathbb{Z}^8 \oplus \mathbb{Z}_{145} \oplus (\mathbb{Z}_{29})^2$
(880,110,165,29,577)	$z_0^2 + z_0 z_1^8 + z_1 z_2^{10} + z_2 z_3^{55} + z_3 z_4^3$	Chain	1760	17745	$\mathbb{Z}^{14} \oplus \mathbb{Z}_4$
(440,110,1485,29,1017)	$z_0^7 + z_0 z_1^{24} + z_1 z_2^2 + z_2 z_3^{55} + z_3 z_4^3$	Chain	3080	37134	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{14} \oplus (\mathbb{Z}_2)^5$
(163,322,29,131,171)	$z_0^5 + z_4 z_1^2 + z_1 z_2^{17} + z_2 z_3^6 + z_3 z_4^4$	BP + Cycle	815	3264	$\mathbb{Z}^4 \oplus \mathbb{Z}_5$
(29,1943,135,756,1053)	$z_0^{135} + z_0 z_1^2 + z_2^{29} + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	3915	43248	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{29})^2$
(154,220,737,29,555)	$z_0^{11} + z_0 z_1^7 + z_1 z_2^2 + z_2 z_3^{33} + z_3 z_4^3$	Chain	1694	10251	$\mathbb{Z}^6 \oplus \mathbb{Z}_{22}$
(220,770,165,29,577)	$z_0^8 + z_0 z_1^2 + z_1 z_2^6 + z_2 z_3^{55} + z_3 z_4^3$	Chain	1760	10647	$\mathbb{Z}^8 \oplus \mathbb{Z}_{16}$
(29,638,279,171,189)	$z_0^{45} + z_0 z_1^2 + z_4 z_2^4 + z_2 z_3^6 + z_3 z_4^6$	Chain + Cycle	1305	6624	$\mathbb{Z}^4 \oplus \mathbb{Z}_{145} \oplus \mathbb{Z}_{29}$
(223,467,216,29,181)	$z_0^5 + z_4 z_1^2 + z_1 z_2^3 + z_2 z_3^{31} + z_3 z_4^6$	BP + Cycle	1115	4464	$\mathbb{Z}^4 \oplus \mathbb{Z}_5$
(648,216,223,29,181)	$z_0^2 + z_1^6 + z_4 z_2^5 + z_2 z_3^{37} + z_3 z_4^7$	BP + Cycle	1296	6475	$\mathbb{Z}^4 \oplus \mathbb{Z}_{432}$

Weights	Polynomial	Type	d	$\mu$	$H_3(M, \mathbb{Z})$
(432,432,223,29,181)	$z_0^3 + z_1^3 + z_4 z_2^5 + z_2 z_3^{37} + z_3 z_4^7$	BP + Cycle	1296	5180	$\mathbb{Z}^2 \oplus \mathbb{Z}_{1296} \oplus \mathbb{Z}_{432}$
(1117,191,259,668,29)	$z_4 z_0^2 + z_0 z_1^6 + z_1 z_2^8 + z_2 z_3^3 + z_3 z_4^{55}$	Cycle	2263	15840	$\mathbb{Z}^6 \oplus \mathbb{Z}_{2263}$
(787,1027,29,212,307)	$z_0^3 + z_4 z_1^2 + z_1 z_2^{46} + z_2 z_3^{11} + z_3 z_4^7$	BP + Cycle	2361	14168	$\mathbb{Z}^6 \oplus \mathbb{Z}_3$
(1377,459,216,29,2051)	$z_0^3 + z_0 z_1^6 + z_1 z_2^{17} + z_2 z_3^{135} + z_3 z_4^2$	Chain	4131	41600	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{51} \oplus \mathbb{Z}_{17}$
(567,5292,2349,29,8207)	$z_0^{29} + z_0 z_1^3 + z_2^7 + z_2 z_3^{486} + z_3 z_4^2$	Chain + Chain	16443	201072	$\mathbb{Z}^{18} \oplus \mathbb{Z}_7$
(1002,9352,14529,29,4147)	$z_0^{29} + z_0 z_1^3 + z_2^2 + z_2 z_3^{501} + z_3 z_4^7$	Chain + Chain	29058	354767	$\mathbb{Z}^{18} \oplus \mathbb{Z}_2$
(32,30,225,51,143)	$z_0^{15} + z_1^{16} + z_1 z_2^2 + z_2 z_3^5 + z_3 z_4^3$	BP + Chain	480	4718	$\mathbb{Z}^{10} \oplus \mathbb{Z}_5$
(101,101,39,33,30)	$z_0^3 + z_1^3 + z_4 z_2^7 + z_2 z_3^8 + z_3 z_4^9$	BP + Cycle	303	2016	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{101})^2$
(215,43,43,100,30)	$z_0^2 + z_1^{10} + z_2^{10} + z_4 z_3^4 + z_3 z_4^{11}$	BP + Cycle	430	3564	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_2)^2$
(65,65,30,72,159)	$z_0^6 + z_1^6 + z_2^{13} + z_2 z_3^5 + z_3 z_4^2$	BP + Chain	390	1925	$\mathbb{Z}^4 \oplus \mathbb{Z}_{26} \oplus (\mathbb{Z}_{13})^4$
(80,30,465,99,287)	$z_0^{12} + z_1^{32} + z_1 z_2^2 + z_2 z_3^5 + z_3 z_4^3$	BP + Chain	960	7403	$\mathbb{Z}^8 \oplus \mathbb{Z}_8 \oplus (\mathbb{Z}_2)^2$
(125,30,144,303,149)	$z_0^6 + z_1^{25} + z_1 z_2^5 + z_2 z_3^2 + z_3 z_4^3$	BP + Chain	750	3005	$\mathbb{Z}^4 \oplus \mathbb{Z}_2$
(159,477,30,260,665)	$z_0^{10} + z_0 z_1^3 + z_2^{53} + z_2 z_3^6 + z_3 z_4^2$	Chain + Chain	1590	7770	$\mathbb{Z}^4 \oplus (\mathbb{Z}_{106})^2 \oplus \mathbb{Z}_{53}$
(33,495,341,31,124)	$z_0^{31} + z_0 z_1^2 + z_2^3 + z_2 z_3^{22} + z_3 z_4^8$	Chain + Chain	1023	14848	$\mathbb{Z}^{28} \oplus (\mathbb{Z}_3)^2$
(297,198,529,35,31)	$z_1 z_0^3 + z_0 z_1^4 + z_4 z_2^2 + z_2 z_3^{16} + z_3 z_4^{34}$	Cycle + Cycle	1089	13056	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{1089} \oplus \mathbb{Z}_{99}$
(85,255,188,37,31)	$z_0^7 + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^{11} + z_3 z_4^{18}$	Chain + Cycle	595	4752	$\mathbb{Z}^6 \oplus \mathbb{Z}_{595} \oplus \mathbb{Z}_{85}$
(944,236,59,31,619)	$z_0^2 + z_0 z_1^4 + z_1 z_2^{28} + z_2 z_3^{59} + z_3 z_4^3$	Chain	1888	26649	$\mathbb{Z}^{20} \oplus \mathbb{Z}_8$
(472,708,59,31,619)	$z_0^4 + z_0 z_1^2 + z_1 z_2^{20} + z_2 z_3^{59} + z_3 z_4^3$	Chain	1888	19035	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{16}$
(145,87,406,31,637)	$z_0^9 + z_1^{15} + z_1 z_2^3 + z_2 z_3^{29} + z_3 z_4^2$	BP + Chain	1305	10688	$\mathbb{Z}^{14} \oplus \mathbb{Z}_3$
(31,1333,87,522,725)	$z_0^{87} + z_0 z_1^2 + z_2^{31} + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	2697	29920	$\mathbb{Z}^{10} \oplus (\mathbb{Z}_{93})^2 \oplus (\mathbb{Z}_3)^3$
(102,238,289,31,157)	$z_0^8 + z_0 z_1^3 + z_1 z_2^2 + z_2 z_3^{17} + z_3 z_4^5$	Chain	816	3295	$\mathbb{Z}^4 \oplus \mathbb{Z}_{16}$
(118,708,1121,31,973)	$z_0^{25} + z_0 z_1^4 + z_1 z_2^2 + z_2 z_3^{59} + z_3 z_4^3$	Chain	2950	23724	$\mathbb{Z}^8 \oplus \mathbb{Z}_{50} \oplus (\mathbb{Z}_2)^3$
(648,216,253,149,31)	$z_0^2 + z_1^6 + z_4 z_2^5 + z_2 z_3^7 + z_3 z_4^{37}$	BP + Cycle	1296	6475	$\mathbb{Z}^4 \oplus \mathbb{Z}_{432}$
(432,432,253,149,31)	$z_0^3 + z_1^3 + z_4 z_2^5 + z_2 z_3^7 + z_3 z_4^{37}$	BP + Cycle	1296	5180	$\mathbb{Z}^2 \oplus \mathbb{Z}_{1296} \oplus \mathbb{Z}_{432}$
(31,899,310,413,177)	$z_0^{59} + z_0 z_1^2 + z_1 z_2^3 + z_4 z_3^4 + z_3 z_4^8$	Chain + Cycle	1829	9408	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{59})^2$
(203,2030,899,31,3131)	$z_0^{31} + z_0 z_1^3 + z_2^7 + z_2 z_3^{174} + z_3 z_4^2$	Chain + Chain	6293	77112	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_7)^3$
(1700,340,1123,207,31)	$z_0^2 + z_1^{10} + z_4 z_2^3 + z_2 z_3^{11} + z_3 z_4^{103}$	BP + Cycle	3400	30591	$\mathbb{Z}^8 \oplus \mathbb{Z}_{680}$
(680,1360,1123,207,31)	$z_0^5 + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^{11} + z_3 z_4^{103}$	Chain + Cycle	3400	20394	$\mathbb{Z}^4 \oplus \mathbb{Z}_{3400} \oplus \mathbb{Z}_{680}$
(2475,990,3697,233,31)	$z_0^3 + z_0 z_1^5 + z_4 z_2^2 + z_2 z_3^{16} + z_3 z_4^{232}$	Chain + Cycle	7425	96512	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{1485}$
(1485,1980,3697,233,31)	$z_0^5 + z_0 z_1^3 + z_4 z_2^2 + z_2 z_3^{16} + z_3 z_4^{232}$	Chain + Cycle	7425	81664	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{2475}$
(5216,326,31,3467,1393)	$z_0^2 + z_0 z_1^{16} + z_1 z_2^{326} + z_2 z_3^3 + z_3 z_4^5$	Chain	10432	135585	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{652}$
(1107,1107,748,31,329)	$z_0^3 + z_1^3 + z_4 z_2^4 + z_2 z_3^{83} + z_3 z_4^{10}$	BP + Cycle	3321	13280	$\mathbb{Z}^2 \oplus \mathbb{Z}_{3321} \oplus \mathbb{Z}_{1107}$
(358,3580,5549,31,1581)	$z_0^{31} + z_0 z_1^3 + z_2^2 + z_2 z_3^{179} + z_3 z_4^7$	Chain + Chain	11098	135387	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_2)^3$
(31,3131,1769,377,986)	$z_0^{203} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^{12} + z_3 z_4^6$	Chain + Cycle	6293	44064	$\mathbb{Z}^6 \oplus \mathbb{Z}_{217} \oplus \mathbb{Z}_{31}$
(2769,4138,379,991,31)	$z_0^3 + z_4 z_1^2 + z_1 z_2^{11} + z_2 z_3^8 + z_3 z_4^{236}$	BP + Cycle	8307	83072	$\mathbb{Z}^{10} \oplus \mathbb{Z}_3$

Weights	Polynomial	Type	d	$\mu$	$H_3(M, \mathbb{Z})$
(6208,388,31,2477,3313)	$z_0^2 + z_0 z_1^{16} + z_1 z_2^{388} + z_2 z_3^5 + z_3 z_4^3$	Chain	12416	136545	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{776}$
(2425,1946,31,449,1467)	$z_4 z_0^2 + z_0 z_1^2 + z_1 z_2^{141} + z_2 z_3^{14} + z_3 z_4^4$	Cycle	6317	31584	$\mathbb{Z}^4 \oplus \mathbb{Z}_{6317}$
(31,3131,1943,725,464)	$z_0^{203} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^6 + z_3 z_4^{12}$	Chain + Cycle	6293	44064	$\mathbb{Z}^6 \oplus \mathbb{Z}_{217} \oplus \mathbb{Z}_{31}$
(5192,472,1239,31,3451)	$z_0^2 + z_0 z_1^{11} + z_1 z_2^8 + z_2 z_3^{295} + z_3 z_4^3$	Chain	10384	103995	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{16}$
(2755,31,509,2216,1647)	$z_4 z_0^2 + z_0 z_1^{142} + z_1 z_2^{14} + z_2 z_3^3 + z_3 z_4^3$	Cycle	7157	35784	$\mathbb{Z}^4 \oplus \mathbb{Z}_{7157}$
(32,704,45,465,195)	$z_0^{45} + z_0 z_1^2 + z_2^{32} + z_2 z_3^3 + z_3 z_4^5$	Chain + Chain	1440	19090	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_{32})^2$
(32,1184,75,465,645)	$z_0^{75} + z_0 z_1^2 + z_2^{32} + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	2400	26676	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{32})^2$
(223,377,123,32,361)	$z_0^5 + z_4 z_1^2 + z_1 z_2^6 + z_2 z_3^{31} + z_3 z_4^3$	BP + Cycle	1115	4464	$\mathbb{Z}^4 \oplus \mathbb{Z}_5$
(35,175,55,33,88)	$z_0^{11} + z_0 z_1^2 + z_2^7 + z_2 z_3^{10} + z_3 z_4^4$	Chain + Chain	385	2592	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_7)^2$
(245,245,174,33,39)	$z_0^3 + z_1^3 + z_4 z_2^4 + z_2 z_3^{17} + z_3 z_4^{18}$	BP + Cycle	735	4896	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{245})^2$
(46,736,33,297,407)	$z_0^{33} + z_0 z_1^2 + z_2^{46} + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	1518	17170	$\mathbb{Z}^{10} \oplus (\mathbb{Z}_{138})^2 \oplus (\mathbb{Z}_3)^3$
(341,33,1177,775,62)	$z_0^7 + z_0 z_1^{62} + z_1 z_2^2 + z_4 z_3^3 + z_3 z_4^{26}$	Chain + Cycle	2387	34320	$\mathbb{Z}^{22} \oplus \mathbb{Z}_7$
(33,121,374,68,527)	$z_0^{34} + z_0 z_1^9 + z_2^3 + z_2 z_3^{11} + z_3 z_4^2$	Chain + Chain	1122	9555	$\mathbb{Z}^{14} \oplus \mathbb{Z}_2$
(253,33,361,76,323)	$z_1 z_0^4 + z_0 z_1^{24} + z_4 z_2^2 + z_2 z_3^9 + z_3 z_4^3$	Cycle + Cycle	1045	5184	$\mathbb{Z}^4 \oplus \mathbb{Z}_{55} \oplus \mathbb{Z}_{11}$
(77,33,143,126,84)	$z_0^6 + z_1^{14} + z_1 z_2^3 + z_4 z_3^3 + z_3 z_4^4$	BP+ Chain + Cycle	462	1740	$\mathbb{Z}^8 \oplus (\mathbb{Z}_2)^2$
(1129,83,736,311,33)	$z_4 z_0^2 + z_0 z_1^{14} + z_1 z_2^3 + z_2 z_3^5 + z_3 z_4^{60}$	Cycle	2291	25200	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{2291}$
(92,1058,591,33,435)	$z_0^{24} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^{49} + z_3 z_4^5$	Chain + Cycle	2208	18375	$\mathbb{Z}^8 \oplus \mathbb{Z}_{368}$
(95,475,190,253,33)	$z_0^{11} + z_0 z_1^2 + z_1 z_2^3 + z_4 z_3^4 + z_3 z_4^{24}$	Chain + Cycle	1045	5184	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{11})^2$
(101,505,319,33,154)	$z_0^{11} + z_0 z_1^2 + z_4 z_2^3 + z_2 z_3^{24} + z_3 z_4^7$	Chain + Cycle	1111	6048	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{101})^2$
(110,660,33,117,401)	$z_0^{12} + z_1^2 + z_1 z_2^{20} + z_2 z_3^{11} + z_3 z_4^3$	BP + Chain	1320	10109	$\mathbb{Z}^{10} \oplus \mathbb{Z}_{20}$
(33,451,154,112,637)	$z_0^{42} + z_0 z_1^3 + z_2^9 + z_2 z_3^{11} + z_3 z_4^2$	Chain + Chain	1386	9095	$\mathbb{Z}^{12} \oplus \mathbb{Z}_6$
(638,116,957,33,171)	$z_0^3 + z_0 z_1^{11} + z_2^2 + z_2 z_3^{29} + z_3 z_4^{11}$	Chain + Chain	1914	18011	$\mathbb{Z}^{10} \oplus \mathbb{Z}_2$
(117,390,33,209,539)	$z_0^{11} + z_0 z_1^3 + z_2^{39} + z_2 z_3^6 + z_3 z_4^2$	Chain + Chain	1287	6256	$\mathbb{Z}^8 \oplus \mathbb{Z}_{13}$
(220,550,33,117,401)	$z_0^6 + z_0 z_1^2 + z_2^{40} + z_2 z_3^{11} + z_3 z_4^3$	Chain + Chain	1320	6433	$\mathbb{Z}^6 \oplus \mathbb{Z}_{60}$
(2958,174,33,1961,791)	$z_0^2 + z_0 z_1^{17} + z_1 z_2^{174} + z_2 z_3^3 + z_3 z_4^5$	Chain	5916	76875	$\mathbb{Z}^{14} \oplus \mathbb{Z}_{116}$
(33,1892,347,2681,757)	$z_0^{173} + z_0 z_1^3 + z_1 z_2^{11} + z_2 z_3^2 + z_3 z_4^4$	Chain	5709	39616	$\mathbb{Z}^6 \oplus \mathbb{Z}_{1903}$
(1045,475,2375,1298,33)	$z_0^5 + z_1^{11} + z_1 z_2^2 + z_4 z_3^4 + z_3 z_4^{119}$	BP+ Chain + Cycle	5225	22848	$\mathbb{Z}^8 \oplus (\mathbb{Z}_5)^2$
(508,2540,1397,33,1111)	$z_0^{11} + z_0 z_1^2 + z_2^4 + z_2 z_3^{127} + z_3 z_4^5$	Chain + Chain	5588	24420	$\mathbb{Z}^8 \oplus (\mathbb{Z}_4)^2$
(33,671,3707,2205,1470)	$z_0^{245} + z_0 z_1^{12} + z_1 z_2^2 + z_4 z_3^3 + z_3 z_4^4$	Chain + Cycle	8085	38208	$\mathbb{Z}^8 \oplus (\mathbb{Z}_{245})^2$
(247,39,845,34,565)	$z_0^7 + z_0 z_1^{38} + z_1 z_2^2 + z_2 z_3^{26} + z_3 z_4^3$	Chain	1729	27936	$\mathbb{Z}^{18} \oplus \mathbb{Z}_7$
(34,408,629,61,535)	$z_0^{49} + z_0 z_1^4 + z_1 z_2^2 + z_2 z_3^{17} + z_3 z_4^3$	Chain	1666	13572	$\mathbb{Z}^8 \oplus \mathbb{Z}_{98} \oplus (\mathbb{Z}_2)^3$
(1627,34,1415,179,1025)	$z_4 z_0^2 + z_0 z_1^{78} + z_1 z_2^3 + z_2 z_3^{16} + z_3 z_4^4$	Cycle	4279	29952	$\mathbb{Z}^6 \oplus \mathbb{Z}_{4279}$
(675,675,461,34,181)	$z_0^3 + z_1^3 + z_4 z_2^4 + z_2 z_3^{46} + z_3 z_4^{11}$	BP + Cycle	2025	8096	$\mathbb{Z}^2 \oplus \mathbb{Z}_{2025} \oplus \mathbb{Z}_{675}$
(34,952,3349,197,2167)	$z_0^{197} + z_0 z_1^7 + z_2^2 + z_2 z_3^{17} + z_3 z_4^3$	Chain + Chain	6698	81627	$\mathbb{Z}^{14} \oplus (\mathbb{Z}_2)^7$
(1499,873,593,34,247)	$z_4 z_0^2 + z_0 z_1^2 + z_1 z_2^4 + z_2 z_3^{78} + z_3 z_4^{13}$	Cycle	3245	16224	$\mathbb{Z}^4 \oplus \mathbb{Z}_{3245}$



Weights	Polynomial	Type	d	$\mu$	$H_3(M, \mathbb{Z})$
(1071,34,313,2521,1417)	$z_0^5 + z_0 z_1^{126} + z_1 z_2^{17} + z_2 z_3^2 + z_3 z_4^2$	Chain	5355	31504	$\mathbb{Z}^4 \oplus \mathbb{Z}_{85} \oplus \mathbb{Z}_{17}$
(2159,34,379,3049,857)	$z_0^3 + z_0 z_1^{127} + z_1 z_2^{17} + z_2 z_3^2 + z_3 z_4^4$	Chain	6477	44960	$\mathbb{Z}^6 \oplus \mathbb{Z}_{51}$
(4777,34,560,1499,2685)	$z_0^2 + z_1^{281} + z_1 z_2^{17} + z_2 z_3^6 + z_3 z_4^3$	BP + Chain	9554	61821	$\mathbb{Z}^6 \oplus \mathbb{Z}_2$
(37,629,35,420,175)	$z_0^{35} + z_0 z_1^2 + z_2^{37} + z_2 z_3^3 + z_3 z_4^5$	Chain + Chain	1295	17280	$\mathbb{Z}^{24} \oplus (\mathbb{Z}_{37})^2$
(35,315,45,39,197)	$z_0^{18} + z_1^2 + z_1 z_2^7 + z_2 z_3^{15} + z_3 z_4^3$	BP + Chain	630	7361	$\mathbb{Z}^{12} \oplus \mathbb{Z}_{42}$
(40,80,35,49,77)	$z_0^7 + z_0 z_1^3 + z_2^8 + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	280	1305	$\mathbb{Z}^6 \oplus (\mathbb{Z}_8)^3$
(44,748,35,301,413)	$z_0^{35} + z_0 z_1^2 + z_2^{44} + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	1540	17388	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{44})^2$
(72,144,45,35,65)	$z_0^5 + z_0 z_1^2 + z_2^8 + z_2 z_3^9 + z_3 z_4^5$	Chain + Chain	360	1770	$\mathbb{Z}^8 \oplus (\mathbb{Z}_8)^2$
(79,158,79,45,35)	$z_0^5 + z_0 z_1^2 + z_1 z_2^3 + z_4 z_3^8 + z_3 z_4^{10}$	Chain + Cycle	395	1920	$\mathbb{Z}^8 \oplus (\mathbb{Z}_5)^2$
(45,117,315,35,119)	$z_0^{14} + z_0 z_1^5 + z_2^2 + z_2 z_3^9 + z_3 z_4^5$	Chain + Chain	630	4161	$\mathbb{Z}^8 \oplus \mathbb{Z}_2$
(105,35,455,297,54)	$z_0^9 + z_0 z_1^{24} + z_1 z_2^2 + z_4 z_3^3 + z_3 z_4^{12}$	Chain + Cycle	945	8064	$\mathbb{Z}^{16} \oplus (\mathbb{Z}_9)^2$
(35,1085,315,54,717)	$z_0^{63} + z_0 z_1^2 + z_2^7 + z_2 z_3^{35} + z_3 z_4^3$	Chain + Chain	2205	31744	$\mathbb{Z}^{20} \oplus \mathbb{Z}_{21}$
(167,74,35,59,55)	$z_4 z_0^2 + z_0 z_1^3 + z_1 z_2^9 + z_2 z_3^6 + z_3 z_4^6$	Cycle	389	1944	$\mathbb{Z}^4 \oplus \mathbb{Z}_{389}$
(35,945,55,374,517)	$z_0^{55} + z_0 z_1^2 + z_2^{35} + z_2 z_3^5 + z_3 z_4^3$	Chain + Chain	1925	21504	$\mathbb{Z}^{16} \oplus \mathbb{Z}_{35} \oplus \mathbb{Z}_7$
(59,177,185,135,35)	$z_0^{10} + z_0 z_1^3 + z_4 z_2^3 + z_2 z_3^3 + z_3 z_4^{13}$	Chain + Cycle	590	2457	$\mathbb{Z}^2 \oplus \mathbb{Z}_{118} \oplus (\mathbb{Z}_{59})^2$
(131,262,427,35,63)	$z_0^7 + z_0 z_1^3 + z_4 z_2^2 + z_2 z_3^{14} + z_3 z_4^{14}$	Chain + Cycle	917	5880	$\mathbb{Z}^6 \oplus (\mathbb{Z}_{131})^3$
(679,194,388,63,35)	$z_0^2 + z_1^7 + z_1 z_2^3 + z_4 z_3^{21} + z_3 z_4^{37}$	BP + Chain + Cycle	1358	11655	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_2)^3$
(35,770,335,67,1139)	$z_0^{67} + z_0 z_1^3 + z_2^7 + z_2 z_3^{30} + z_3 z_4^2$	Chain + Chain	2345	29160	$\mathbb{Z}^{18} \oplus (\mathbb{Z}_7)^3$
(35,119,126,72,279)	$z_0^{18} + z_0 z_1^5 + z_2^5 + z_2 z_3^7 + z_3 z_4^2$	Chain + Chain	630	2847	$\mathbb{Z}^8 \oplus \mathbb{Z}_2$
(87,1479,1015,35,430)	$z_0^{35} + z_0 z_1^2 + z_2^3 + z_2 z_3^{58} + z_3 z_4^7$	Chain + Chain	3045	37656	$\mathbb{Z}^{12} \oplus (\mathbb{Z}_{21})^2$
(465,92,339,35,179)	$z_4 z_0^2 + z_0 z_1^7 + z_1 z_2^3 + z_2 z_3^{22} + z_3 z_4^6$	Cycle	1109	5544	$\mathbb{Z}^4 \oplus \mathbb{Z}_{1109}$
(99,858,363,35,1319)	$z_0^{27} + z_0 z_1^3 + z_1 z_2^5 + z_2 z_3^{66} + z_3 z_4^2$	Chain	2673	27080	$\mathbb{Z}^4 \oplus \mathbb{Z}_{1109}$