

$$d = 16$$

$$\Phi_{\mathbb{Q}}(16) \supseteq \left\{ \begin{array}{l} (3), (4), (5), (6), (7), (8), (9), (10), (12), (13), (15), (16), (17), (20), (21), (24), (30), (32), (40), (48), \\ (2, 2), (2, 4), (2, 6), (2, 8), (2, 10), (2, 12), (2, 16), (2, 20), (2, 24), (2, 30), (2, 32), (3, 3), (3, 6), (3, 12), (3, 15), \\ (4, 4), (4, 8), (4, 12), (4, 16), (4, 20), (5, 5), (5, 15), (6, 6), (6, 12), (8, 8) \end{array} \right\}$$

$G$	$\Phi_{\mathbb{Q}}(16, G) \setminus \{G\} \supseteq$
( $\emptyset$ )	$\{(3), (5), (7), (9), (13), (15), (17), (21), (3, 3), (3, 15), (5, 5), (5, 15)\}$
(2)	$\left\{ (4), (6), (8), (10), (12), (16), (20), (24), (30), (32), (40), (48), (2, 2), (2, 4), (2, 6), (2, 8), (2, 10), (2, 12), (2, 16), (2, 20), (2, 24), (2, 30), (2, 32), (3, 6), (3, 12), (4, 4), (4, 8), (4, 12), (4, 16), (4, 20), (6, 6), (6, 12), (8, 8) \right\}$
(3)	$\{(15), (3, 3), (5, 15)\}$
(4)	$\{(8), (12), (16), (20), (24), (32), (40), (48), (2, 4), (2, 8), (2, 12), (2, 16), (2, 20), (2, 24), (2, 32), (3, 12), (4, 4), (4, 8), (4, 12), (4, 16), (4, 20), (6, 12), (8, 8)\}$
(5)	$\{(15), (5, 5)\}$
(6)	$\{(12), (24), (48), (2, 6), (2, 12), (2, 24), (3, 6), (3, 12), (4, 12), (6, 6), (6, 12)\}$
(7)	$\{(21)\}$
(8)	$\{(16), (24), (32), (48), (2, 8), (2, 16), (2, 24), (2, 32), (4, 8), (4, 16), (8, 8)\}$
(9)	$\{\}$
(10)	$\{(20), (30), (40), (2, 10), (2, 20), (2, 30)\}$
(12)	$\{(24), (48), (2, 12), (2, 24), (4, 12)\}$
(2, 2)	$\{(2, 4), (2, 6), (2, 8), (2, 10), (2, 12), (2, 16), (2, 20), (2, 24), (2, 32), (4, 4), (4, 8), (4, 12), (4, 16), (4, 20), (6, 6), (6, 12), (8, 8)\}$
(2, 4)	$\{(2, 8), (2, 12), (2, 16), (2, 24), (2, 32), (4, 4), (4, 8), (4, 12), (4, 16), (8, 8)\}$
(2, 6)	$\{(2, 12), (2, 24), (4, 12)\}$
(2, 8)	$\{(2, 16), (2, 24), (2, 32), (4, 8), (4, 16), (8, 8)\}$

$$h_{\mathbb{Q}}(16) = 25$$

Number of configurations: 480

Maximun conductor to obtain all the configurations: 277440

$G$	$\mathcal{H}_{\mathbb{Q}}(16, E)$	Label
( $)$	(3)	19a2
( $)$	(9)	54a2
( $)$	(3), (3, 3)	245a1
( $)$	(3), (5)	11a2
( $)$	(3), (13)	2890d1
( $)$	(3), (15)	50b3
( $)$	(3), (17)	14450n1
( $)$	(3) $^2$ , (3, 3)	175b2
( $)$	(3), (5), (3, 3)	1369e2
( $)$	(3), (5) $^2$	608b1
( $)$	(3), (5), (5, 5)	6975a1
( $)$	(3), (5), (5, 15)	225a2
( $)$	(3), (5), (15)	50a2
( $)$	(3), (7), (21)	208d1
( $)$	(3), (15), (5, 15)	225a1
( $)$	(3), (5) $^2$ , (3, 3)	361a1
( $)$	(3), (5) $^2$ , (5, 5)	18176b2
( $)$	(3), (5), (15), (3, 3)	1369e1
( $)$	(3), (5), (15), (5, 5)	275b2
( $)$	(3), (5) $^2$ , (15), (5, 5)	99d2
( $)$	(3) $^2$ , (5) $^2$ , (15), (3, 3)	121b1
( $)$	(3) $^2$ , (5), (15), (3, 3), (3, 15)	338d1
( $)$	(3) $^2$ , (5), (15) $^2$ , (3, 3)	338d2
(2)	(4), (8), (2, 6), (4, 12)	36a3
(2)	(4), (8), (2, 6), (2, 12) $^2$	84a3
(2)	(4), (2, 6), (2, 12) $^2$ , (2, 24), (4, 12)	144a4
(2)	(4), (6), (8), (2, 2), (2, 6), (4, 4)	128b1
(2)	(4), (6), (8), (2, 2), (2, 6), (4, 12)	144a1
(2)	(4), (8), (2, 6), (2, 12) $^2$ , (4, 12)	80b1
(2)	(4), (8), (2, 6), (2, 12), (2, 24), (4, 12)	1040g2
(2)	(6), (12), (24), (2, 2), (2, 6), (4, 12)	144a3
(2)	(4), (6), (8), (2, 2), (2, 4) $^2$ , (2, 6)	46a1
(2)	(4), (6), (8), (2, 2), (2, 4) $^2$ , (6, 6)	6727a2
(2)	(4), (6), (8), (2, 10), (2, 20) $^2$ , (2, 30)	450a3
(2)	(4), (8), (2, 2), (2, 4) $^2$ , (2, 6), (6, 6)	2205a2
(2)	(6), (2, 2), (2, 4) $^2$ , (2, 6), (2, 8), (4, 4)	1792a1
(2)	(6), (2, 2), (2, 4) $^2$ , (2, 6), (2, 8), (4, 8)	200b1

$G$	$\mathcal{H}_{\mathbb{Q}}(16, E)$	Label
(2)	(2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (2, 12), (4, 4), (6, 6)	223494n1
(2)	(4), (6), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (4, 4)	128b2
(2)	(4), (6), (2, 2), (2, 4), (2, 6), (2, 12), (2, 24), (4, 12)	144a2
(2)	(4), (6), (8), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (3, 6)	1568d1
(2)	(4), (6), (8), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (4, 4)	52a1
(2)	(4), (6), (8), (2, 2), (2, 4), (2, 6), (2, 8), (4, 4)	128a1
(2)	(4), (6), (8), (2, 2), (2, 4), (2, 6), (2, 12) <sup>2</sup>	2352t3
(2)	(4), (6), (8), (2, 2), (2, 4), (2, 6), (2, 12), (4, 12)	400e1
(2)	(4), (6), (8), (2, 2), (2, 4), (2, 6), (4, 4), (4, 8)	768a2
(2)	(4), (6), (8) <sup>2</sup> , (2, 2), (2, 6), (4, 4), (4, 8)	16810b2
(2)	(4), (6), (8), (12), (2, 2), (2, 4) <sup>2</sup> , (6, 6)	4107a1
(2)	(4), (6), (8), (12), (2, 2), (2, 6), (4, 4), (4, 12)	576a3
(2)	(4), (6), (12), (24), (2, 2), (2, 6), (4, 4), (4, 12)	576a1
(2)	(4), (8), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (4, 4), (6, 6)	173280f2
(2)	(6), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (4, 4)	200b2
(2)	(6), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (2, 16), (4, 8)	3362a1
(2)	(6), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (3, 6), (4, 4)	4225j1
(2)	(6), (12), (2, 2), (2, 4), (2, 6), (2, 12), (2, 24), (4, 12)	36a4
(2)	(6), (12), (24), (2, 2), (2, 4), (2, 6), (2, 12) <sup>2</sup>	84a4
(2)	(6), (12), (24), (2, 2), (2, 4), (2, 6), (2, 12), (4, 12)	80b2
(2)	(4) <sup>2</sup> , (8), (2, 6), (2, 12) <sup>2</sup> , (2, 24) <sup>2</sup> , (4, 12)	14400bo8
(2)	(4), (6), (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (4, 4), (4, 8)	16810b1
(2)	(4), (6), (8), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (4, 4)	128a2
(2)	(4), (6), (8), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (3, 6), (4, 4)	126350bb1
(2)	(4), (6), (8), (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (4, 4)	867b1
(2)	(4), (6), (8), (12), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (3, 6)	2205a1
(2)	(4), (6), (8), (12), (2, 2), (2, 4), (2, 6), (2, 12), (4, 12)	650j2
(2)	(4), (6), (12), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (4, 12)	576a4
(2)	(4), (6), (12), (2, 2), (2, 4), (2, 6), (2, 8), (2, 12), (4, 12)	576a2
(2)	(4), (8), (12), (2, 2), (2, 4), (2, 12), (2, 24) <sup>2</sup> , (4, 12)	14400ef3
(2)	(4), (12), (24), (2, 2), (2, 4), (2, 12), (2, 24) <sup>2</sup> , (4, 12)	14400bo3
(2)	(6), (8), (16), (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (4, 8)	294f1
(2)	(6), (12), (24), (2, 2), (2, 4), (2, 6), (2, 12), (2, 24), (4, 12)	1040g1
(2)	(4) <sup>2</sup> , (8) <sup>2</sup> , (2, 6), (2, 12) <sup>2</sup> , (2, 24) <sup>2</sup> , (4, 12)	450g1
(2)	(4), (6), (8), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 10), (2, 20) <sup>2</sup>	1014c2
(2)	(4), (6), (8), (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (4, 4), (4, 8)	768c2
(2)	(4), (6), (8), (2, 2), (2, 4), (2, 8), (2, 16), (4, 4), (4, 8), (6, 6)	49a1

$G$	$\mathcal{H}_{\mathbb{Q}}(16, E)$	Label
(2)	(4), (6), (8) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (4, 4)	768a1
(2)	(4), (6), (8), (10), (20), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 10)	66c3
(2)	(4), (6), (8), (12), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 12) <sup>2</sup>	14a3
(2)	(4), (6), (8), (12), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (3, 6), (4, 4)	173280f1
(2)	(4), (6), (8), (12), (2, 6), (2, 12) <sup>2</sup> , (6, 6), (6, 12) <sup>2</sup>	98a3
(2)	(4), (8), (12), (24), (2, 2), (2, 4), (2, 12), (2, 24) <sup>2</sup> , (4, 12)	30a3
(2)	(4) <sup>2</sup> , (8) <sup>2</sup> , (2, 6), (2, 12) <sup>2</sup> , (2, 24) <sup>3</sup> , (4, 12)	960o7
(2)	(4), (6), (8) <sup>2</sup> , (2, 2), (2, 4), (2, 6), (2, 8), (4, 4), (4, 8) <sup>2</sup>	294f2
(2)	(4), (6), (8), (10), (20), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 10), (2, 20)	1014c1
(2)	(4), (6), (8), (10), (30), (2, 2), (2, 4), (2, 6), (2, 10), (2, 20) <sup>2</sup>	14400cg3
(2)	(4), (6), (8), (12), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 12) <sup>2</sup> , (4, 4)	20a3
(2)	(4), (6), (8), (12), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 12) <sup>2</sup> , (6, 6)	726a1
(2)	(4), (6), (8), (12), (2, 2), (2, 4), (2, 6), (2, 8), (2, 12), (4, 4), (4, 12)	130a4
(2)	(4), (6), (12), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (2, 12) <sup>2</sup> , (4, 4)	900b2
(2)	(4), (6), (12), (24), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 12) <sup>2</sup> , (4, 4)	650j1
(2)	(4), (8), (10) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 10), (4, 4), (6, 6)	7200a2
(2)	(4), (8), (10) <sup>2</sup> , (12), (2, 2), (2, 4) <sup>2</sup> , (2, 10), (4, 4), (6, 12)	288a1
(2)	(4), (8), (12), (16), (24), (2, 2), (2, 4), (2, 12), (2, 24) <sup>2</sup> , (4, 12)	960e3
(2)	(4), (8), (12), (24), (2, 2), (2, 4), (2, 8), (2, 12), (2, 24) <sup>2</sup> , (4, 12)	720j3
(2)	(4), (8), (12), (24), (48), (2, 2), (2, 4), (2, 12), (2, 24) <sup>2</sup> , (4, 12)	960o3
(2)	(6), (10), (20), (30), (40), (2, 2), (2, 4), (2, 6), (2, 10), (2, 20) <sup>2</sup>	450a4
(2)	(4) <sup>2</sup> , (6), (8) <sup>2</sup> , (12) <sup>2</sup> , (2, 2), (2, 4), (2, 6), (4, 4), (4, 8)	7200bn4
(2)	(4) <sup>2</sup> , (6), (8) <sup>2</sup> , (12) <sup>2</sup> , (2, 2), (2, 6), (4, 4), (4, 8) <sup>2</sup>	320a4
(2)	(4) <sup>2</sup> , (6), (8), (12) <sup>2</sup> , (16), (2, 2), (2, 6), (4, 4), (4, 8) <sup>2</sup>	200c4
(2)	(4), (6), (8) <sup>2</sup> , (10) <sup>2</sup> , (2, 2), (2, 6), (2, 10), (3, 6), (4, 4), (4, 8)	2304h2
(2)	(4), (6), (8) <sup>2</sup> , (16) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (4, 4)	768c1
(2)	(4), (6), (8), (10), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 10) <sup>2</sup> , (3, 6), (4, 4)	800d1
(2)	(4), (6), (8), (10) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 10), (3, 6), (4, 4)	1568a1
(2)	(4), (6), (8), (10) <sup>2</sup> , (12), (2, 2), (2, 4) <sup>2</sup> , (2, 10), (4, 4), (6, 6)	576f2
(2)	(4), (6), (8), (10), (20), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 10), (3, 6), (4, 4)	800d2
(2)	(4), (6), (10) <sup>2</sup> , (2, 2), (2, 4), (2, 6), (2, 8), (2, 10), (3, 6), (4, 4), (8, 8)	256b1
(2)	(4), (8), (10) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 10), (2, 12), (4, 4), (6, 6)	576f1
(2)	(4), (8), (10) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 10), (2, 12), (4, 4), (6, 12)	288a2
(2)	(4) <sup>2</sup> , (6), (8) <sup>2</sup> , (12) <sup>2</sup> , (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (4, 4)	153c4
(2)	(4) <sup>2</sup> , (6), (8), (12) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (4, 4)	153c1
(2)	(4) <sup>2</sup> , (8) <sup>2</sup> , (10), (12), (2, 2), (2, 4), (2, 10), (2, 20), (4, 4), (4, 8), (6, 12)	288d4
(2)	(4), (6) <sup>2</sup> , (8), (12) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6) <sup>2</sup> , (3, 6), (6, 6)	1210a1

$G$	$\mathcal{H}_{\mathbb{Q}}(16, E)$	Label
(2)	(4), (6), (8) <sup>2</sup> , (10) <sup>2</sup> , (16), (2, 2), (2, 6), (2, 10), (3, 6), (4, 4), (8, 8)	256b2
(2)	(4), (6), (8) <sup>2</sup> , (12), (24), (2, 2), (2, 4), (2, 6), (2, 8), (2, 16) <sup>2</sup> , (4, 8)	7056bx3
(2)	(4), (6), (8) <sup>2</sup> , (16) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (3, 6), (4, 4)	49a2
(2)	(4), (6), (8), (10), (20), (30), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 10), (2, 20) <sup>2</sup>	150b3
(2)	(4), (6), (8), (12), (24), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (2, 12) <sup>2</sup> , (4, 4)	130a3
(2)	(4), (6), (10) <sup>2</sup> , (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (2, 10), (3, 6), (4, 4), (4, 8)	2304h1
(2)	(6) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6) <sup>2</sup> , (2, 8), (2, 12) <sup>2</sup> , (3, 6), (4, 4), (6, 6)	2304c1
(2)	(6) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6) <sup>2</sup> , (2, 8), (2, 12) <sup>2</sup> , (3, 6), (4, 8), (6, 6)	256a1
(2)	(6), (8) <sup>2</sup> , (16) <sup>2</sup> , (24) <sup>2</sup> , (2, 2), (2, 6), (4, 8), (4, 16) <sup>2</sup> , (8, 8)	2880r6
(2)	(4) <sup>2</sup> , (6), (8) <sup>2</sup> , (12) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (4, 4)	120b1
(2)	(4) <sup>2</sup> , (6), (8), (12) <sup>2</sup> , (16), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (4, 4)	936i1
(2)	(4) <sup>2</sup> , (6), (8), (12) <sup>2</sup> , (16), (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (4, 4), (4, 8)	289a4
(2)	(4) <sup>2</sup> , (6), (12) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>3</sup> , (4, 4), (4, 8)	289a3
(2)	(4), (6) <sup>2</sup> , (8), (12), (2, 2), (2, 4) <sup>2</sup> , (2, 6) <sup>2</sup> , (2, 12), (3, 6), (3, 12), (6, 6)	726a2
(2)	(4), (6), (8) <sup>2</sup> , (12), (16), (24), (2, 2), (2, 4), (2, 6), (2, 8), (2, 16) <sup>2</sup> , (4, 8)	306c1
(2)	(4), (6), (8) <sup>2</sup> , (12), (24), (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (2, 16) <sup>2</sup> , (4, 8)	576i4
(2)	(4), (6), (8), (12), (16), (24), (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (2, 16) <sup>2</sup> , (4, 8)	147a3
(2)	(4), (6), (8), (12), (16), (24), (2, 2), (2, 4), (2, 6), (2, 8), (2, 16) <sup>2</sup> , (4, 8), (8, 8)	192d6
(2)	(4), (6), (8), (12), (16), (32), (48), (2, 2), (2, 4), (2, 6), (2, 16), (2, 32) <sup>2</sup> , (4, 16)	3150bk1
(2)	(4), (6), (8), (12), (24), (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (2, 16) <sup>2</sup> , (4, 8), (4, 16)	277440dv8
(2)	(4) <sup>2</sup> , (6), (8) <sup>2</sup> , (10), (12) <sup>2</sup> , (2, 2), (2, 4), (2, 10), (2, 20), (4, 4), (4, 8), (6, 6)	576h1
(2)	(4) <sup>2</sup> , (6), (8) <sup>2</sup> , (12) <sup>2</sup> , (16), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (4, 4)	33a2
(2)	(4) <sup>2</sup> , (6), (8) <sup>2</sup> , (12) <sup>2</sup> , (20), (2, 2), (2, 4), (2, 10), (2, 20), (4, 4), (4, 8), (6, 6)	800a4
(2)	(4) <sup>2</sup> , (6), (8), (10), (12) <sup>2</sup> , (16), (2, 2), (2, 10), (4, 4), (4, 8), (4, 20), (6, 6), (8, 8)	64a4
(2)	(4) <sup>2</sup> , (6), (8), (12) <sup>2</sup> , (2, 2), (2, 4), (2, 6), (2, 8), (2, 12) <sup>2</sup> , (2, 24) <sup>2</sup> , (4, 12)	14400ef8
(2)	(4) <sup>2</sup> , (6), (8), (12) <sup>2</sup> , (16) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (4, 4)	320a1
(2)	(4) <sup>2</sup> , (6), (12) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>3</sup> , (2, 16), (4, 4), (4, 8)	200c3
(2)	(4) <sup>2</sup> , (6), (12) <sup>2</sup> , (24), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (2, 12), (2, 24) <sup>2</sup> , (4, 12)	14400ef7
(2)	(4) <sup>2</sup> , (6), (12) <sup>2</sup> , (24), (2, 2), (2, 4), (2, 6), (2, 8), (2, 12) <sup>2</sup> , (2, 24) <sup>2</sup> , (4, 12)	14400bo7
(2)	(4), (6) <sup>2</sup> , (8), (12), (2, 2), (2, 4), (2, 6) <sup>2</sup> , (2, 12) <sup>3</sup> , (3, 6), (6, 6), (6, 12)	3136k3
(2)	(4), (6), (8) <sup>3</sup> , (12), (16) <sup>3</sup> , (24), (2, 2), (2, 6), (2, 8), (4, 8), (4, 16)	14400y6
(2)	(4), (6), (8) <sup>3</sup> , (12), (16), (24), (2, 2), (2, 6), (2, 8), (2, 16) <sup>2</sup> , (4, 8), (4, 16)	4800b6
(2)	(4), (6), (8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24), (2, 2), (2, 4), (2, 6), (2, 8), (2, 16) <sup>2</sup> , (4, 8)	126b1
(2)	(4), (6), (8) <sup>2</sup> , (12), (16), (24), (2, 2), (2, 4), (2, 6), (2, 8), (2, 16) <sup>2</sup> , (4, 8)	126b5
(2)	(4), (6), (8) <sup>2</sup> , (12), (16), (24), (2, 2), (2, 4), (2, 6), (2, 8), (2, 16) <sup>2</sup> , (2, 32), (4, 8)	45a1
(2)	(4), (6), (8) <sup>2</sup> , (12), (16), (24), (32), (2, 2), (2, 4), (2, 6), (2, 8), (2, 16) <sup>2</sup> , (4, 8)	63a1

$G$	$\mathcal{H}_{\mathbb{Q}}(16, E)$	Label
(2)	(4), (6), (8), (12), (16), (24), (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (2, 16) <sup>2</sup> , (4, 8), (4, 16)	144b1
(2)	(4), (6), (8), (12), (16), (24), (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (2, 16) <sup>2</sup> , (4, 8), (8, 8)	1344g5
(2)	(6) <sup>2</sup> , (12), (24), (2, 2), (2, 4), (2, 6) <sup>2</sup> , (2, 12) <sup>3</sup> , (3, 6), (3, 12), (6, 6), (6, 12)	98a4
(2)	(4) <sup>2</sup> , (6), (8) <sup>3</sup> , (12) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (2, 16) <sup>2</sup> , (4, 8)	14400dq5
(2)	(4) <sup>2</sup> , (6), (8) <sup>3</sup> , (12) <sup>2</sup> , (16) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (4, 8)	360a1
(2)	(4) <sup>2</sup> , (6), (8), (12) <sup>2</sup> , (16), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>3</sup> , (4, 4), (4, 8)	17a3
(2)	(4), (6), (8) <sup>3</sup> , (12), (16) <sup>3</sup> , (24), (2, 2), (2, 6), (2, 8), (2, 16) <sup>2</sup> , (4, 8)	585f6
(2)	(4), (6), (8) <sup>3</sup> , (12), (16) <sup>2</sup> , (24), (2, 2), (2, 6), (2, 8), (2, 16) <sup>2</sup> , (4, 8), (4, 16)	225c6
(2)	(4), (6), (8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24), (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (2, 16) <sup>2</sup> , (4, 8)	120a6
(2)	(4), (6), (8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24), (2, 2), (2, 4), (2, 6), (2, 8), (2, 16) <sup>2</sup> , (4, 8), (8, 8)	24a6
(2)	(4), (6), (8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24), (32), (2, 2), (2, 4), (2, 6), (2, 8), (2, 16) <sup>2</sup> , (4, 8)	1344g1
(2)	(4), (6), (8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24), (32) <sup>2</sup> , (2, 2), (2, 4), (2, 6), (2, 8), (2, 16), (4, 16)	25200dz1
(2)	(4), (6), (8) <sup>2</sup> , (12), (16), (24), (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (2, 16) <sup>2</sup> , (4, 8), (4, 16)	816h1
(2)	(4), (6), (8) <sup>2</sup> , (12), (16), (24), (32), (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (2, 16) <sup>2</sup> , (4, 8)	1344g4
(2)	(4) <sup>2</sup> , (6), (8) <sup>3</sup> , (12) <sup>2</sup> , (16), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (2, 16), (4, 4)	360a4
(2)	(4) <sup>2</sup> , (6), (8) <sup>3</sup> , (12) <sup>2</sup> , (16), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (2, 16) <sup>2</sup> , (4, 8)	600a5
(2)	(4) <sup>2</sup> , (6), (8) <sup>3</sup> , (12) <sup>2</sup> , (16) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (4, 4)	990c5
(2)	(4) <sup>2</sup> , (6), (8) <sup>3</sup> , (12) <sup>2</sup> , (16) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (4, 8)	306c6
(2)	(4) <sup>2</sup> , (6), (8) <sup>3</sup> , (12) <sup>2</sup> , (16) <sup>3</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (4, 8)	600d1
(2)	(4) <sup>2</sup> , (6), (8) <sup>2</sup> , (12) <sup>2</sup> , (24), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (2, 12) <sup>2</sup> , (4, 4)	2880n1
(2)	(4) <sup>2</sup> , (6), (8) <sup>2</sup> , (12) <sup>2</sup> , (24) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (2, 12), (4, 12)	240b1
(2)	(4) <sup>2</sup> , (6), (8) <sup>2</sup> , (12) <sup>2</sup> , (24) <sup>2</sup> , (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (2, 12) <sup>2</sup> , (4, 12)	30a8
(2)	(4) <sup>2</sup> , (6), (8), (12) <sup>2</sup> , (24), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (2, 12) <sup>2</sup> , (2, 24), (4, 4)	14400bo1
(2)	(4) <sup>2</sup> , (6), (8), (12) <sup>2</sup> , (24) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8), (2, 12) <sup>2</sup> , (2, 24), (4, 4)	30a7
(2)	(4) <sup>2</sup> , (8), (10) <sup>2</sup> , (12), (20) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 8) <sup>2</sup> , (2, 10), (2, 12), (3, 12), (4, 4)	288d3
(2)	(4), (6), (8) <sup>3</sup> , (12), (16) <sup>3</sup> , (24), (2, 2), (2, 6), (2, 8), (2, 16) <sup>2</sup> , (4, 8), (4, 16)	4800cd6
(2)	(4), (6), (8) <sup>3</sup> , (12), (16) <sup>3</sup> , (24), (2, 2), (2, 6), (2, 8), (2, 16) <sup>2</sup> , (4, 8), (8, 8)	45a6
(2)	(4), (6), (8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24), (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (2, 16) <sup>2</sup> , (4, 8), (4, 16)	48a4
(2)	(4), (6), (8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24), (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (2, 16) <sup>2</sup> , (4, 8), (8, 8)	42a5
(2)	(4), (6), (8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24), (32), (2, 2), (2, 4), (2, 6), (2, 8) <sup>2</sup> , (2, 16) <sup>2</sup> , (4, 8)	294c5
(2)	(4), (6), (8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24), (32), (2, 2), (2, 4), (2, 6), (2, 8), (2, 16) <sup>2</sup> , (2, 32), (4, 8)	25200dz4
(2)	(4), (6), (8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24), (32) <sup>2</sup> , (2, 2), (2, 4), (2, 6), (2, 8), (2, 16) <sup>2</sup> , (4, 8)	630c1
(2)	(4) <sup>2</sup> , (6), (8) <sup>4</sup> , (12) <sup>2</sup> , (16) <sup>4</sup> , (2, 2), (2, 6), (4, 4), (4, 8) <sup>2</sup>	187200eh5
(2)	(4) <sup>2</sup> , (6), (8) <sup>3</sup> , (12) <sup>2</sup> , (16), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>3</sup> , (2, 16), (4, 4)	600d4
(2)	(4) <sup>2</sup> , (6), (8) <sup>3</sup> , (12) <sup>2</sup> , (16), (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (2, 16) <sup>2</sup> , (4, 8)	192d3
(2)	(4) <sup>2</sup> , (6), (8) <sup>3</sup> , (12) <sup>2</sup> , (16) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>3</sup> , (4, 4)	525b6
(2)	(4) <sup>2</sup> , (6), (8) <sup>3</sup> , (12) <sup>2</sup> , (16) <sup>2</sup> , (2, 2), (2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (2, 16), (4, 4)	306c4

$G$	$\mathcal{H}_{\mathbb{Q}}(16, E)$	Label
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8), (2, 16)^2, (4, 8)$	192d1
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^3, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (4, 4)$	525b5
(2)	$(4)^2, (6), (8)^2, (12)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^2, (4, 4), (4, 8)$	2880be5
(2)	$(4)^2, (6), (8)^2, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (4, 4), (4, 8)$	1287e6
(2)	$(4)^2, (6), (8)^2, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (4, 4), (4, 8)^2$	600a4
(2)	$(4)^2, (6), (8)^2, (12)^2, (16), (24), (2, 2), (2, 4), (2, 6), (2, 8), (2, 12)^2, (2, 24)^2, (4, 12)$	1050k4
(2)	$(4)^2, (6), (8)^2, (12)^2, (24)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 12)^2, (4, 4)$	210a3
(2)	$(4)^2, (6), (8), (10)^2, (12), (20)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 10), (3, 12), (4, 4)$	288d2
(2)	$(4)^2, (6), (8), (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16), (4, 4), (4, 8)$	40a2
(2)	$(4)^2, (6), (8), (12)^2, (16), (24)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8), (2, 12), (2, 24)^2, (4, 12)$	720j7
(2)	$(4)^2, (6), (8), (12)^2, (16), (24)^2, (2, 2), (2, 4), (2, 6), (2, 8), (2, 12)^2, (2, 24)^2, (4, 12)$	150c8
(2)	$(4)^2, (6), (8), (12)^2, (24), (2, 2), (2, 4)^2, (2, 6), (2, 8), (2, 12)^2, (2, 24)^2, (4, 4), (4, 12)$	960e7
(2)	$(4)^2, (6), (10), (12), (20), (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16), (2, 20), (3, 12), (4, 4), (4, 8)$	64a2
(2)	$(4)^2, (6), (12)^2, (24)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8), (2, 12)^2, (2, 24)^2, (4, 4), (4, 12)$	150c7
(2)	$(4), (6)^2, (8), (12)^2, (2, 2), (2, 4)^2, (2, 6)^2, (2, 12)^4, (3, 6), (3, 12), (6, 6)$	112c3
(2)	$(4), (6), (8)^3, (12), (16)^3, (24), (32), (2, 2), (2, 6), (2, 8), (2, 16)^2, (4, 8), (4, 16)$	75b6
(2)	$(4), (6), (8)^2, (12), (16)^3, (24), (32)^2, (2, 2), (2, 4), (2, 6), (2, 8), (2, 16)^2, (4, 8)$	4800cd8
(2)	$(4), (6), (8)^2, (12), (16)^2, (24), (32), (2, 2), (2, 4), (2, 6), (2, 8)^2, (2, 16)^2, (4, 8), (4, 16)$	510e7
(2)	$(4), (6), (8)^2, (12), (16)^2, (24), (32)^2, (2, 2), (2, 4), (2, 6), (2, 8)^2, (2, 16)^2, (4, 8)$	4800cd7
(2)	$(4), (6), (8)^2, (12), (16)^2, (24), (32)^2, (2, 2), (2, 4), (2, 6), (2, 8), (2, 16)^2, (2, 32), (4, 8)$	75b1
(2)	$(4), (6), (8), (12), (16)^2, (24), (32)^2, (2, 2), (2, 4), (2, 6), (2, 8)^2, (2, 16)^2, (4, 8), (4, 16)$	1470k3
(2)	$(4)^2, (6), (8)^4, (12)^2, (16)^4, (2, 2), (2, 6), (4, 4), (4, 8)^2, (4, 16)$	4410r6
(2)	$(4)^2, (6), (8)^4, (12)^2, (16)^4, (2, 2), (2, 6), (4, 4), (4, 8)^2, (8, 8)$	6150n6
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16), (4, 4)$	126b3
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 16)^2, (4, 8)$	144b5
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^3, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 16), (4, 4)$	126b6
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^3, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 16)^2, (4, 8)$	975a4
(2)	$(4)^2, (6), (8)^2, (12)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^3, (4, 4), (4, 8)$	3264h5
(2)	$(4)^2, (6), (8)^2, (12)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^2, (4, 4), (4, 8)^2$	72a3
(2)	$(4)^2, (6), (8)^2, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16), (4, 4), (4, 8)$	1008k5
(2)	$(4)^2, (6), (8)^2, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (4, 4), (4, 8)^2$	63a6
(2)	$(4)^2, (6), (8), (10)^2, (12)^2, (20)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 10), (3, 6), (4, 4)$	800a2
(2)	$(4)^2, (6), (8), (10), (12)^2, (20)^3, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 10), (3, 6), (4, 4)$	800a3
(2)	$(4), (6), (8)^2, (12), (16)^3, (24), (32)^2, (2, 2), (2, 4), (2, 6), (2, 8)^2, (2, 16)^2, (4, 8)$	6720cd1
(2)	$(4)^2, (6), (8)^4, (12)^2, (16)^2, (2, 2), (2, 4), (2, 6), (2, 8)^2, (2, 16)^2, (4, 4), (4, 8)$	40560bg5
(2)	$(4)^2, (6), (8)^4, (12)^2, (16)^4, (2, 2), (2, 4), (2, 6), (2, 8)^2, (4, 4), (4, 8)$	2925g6
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16), (4, 4), (4, 8)$	240a1

$G$	$\mathcal{H}_{\mathbb{Q}}(16, E)$	Label
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^3, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16), (4, 4)$	45a7
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^3, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (4, 4), (4, 8)$	231a5
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^3, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 16)^2, (4, 8)$	192c1
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^3, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (4, 4), (4, 8)^2$	240a4
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^4, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 16), (4, 4)$	45a8
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^4, (2, 2), (2, 4)^2, (2, 6), (2, 8), (2, 16)^2, (4, 8)$	960i8
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^3, (32), (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 16), (4, 4)$	585f1
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^3, (32), (2, 2), (2, 4)^2, (2, 6), (2, 8), (2, 16)^2, (4, 8)$	45a3
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^2, (32)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8), (2, 16)^2, (4, 8)$	1200j1
(2)	$(4)^2, (6), (8)^2, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^2, (4, 4), (4, 8)$	2352v1
(2)	$(4)^2, (6), (8)^2, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 16)^2, (4, 4), (4, 8)^2$	1734i4
(2)	$(4)^2, (6), (8)^2, (12)^2, (16), (24)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 12)^2, (2, 24), (4, 4)$	90c5
(2)	$(4)^2, (6), (8)^2, (12)^2, (24)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 12)^2, (4, 4), (4, 12)$	90c4
(2)	$(4)^2, (6), (8), (10), (12), (20), (40), (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16), (2, 20), (3, 12), (4, 4), (4, 8)$	32a3
(2)	$(4), (6), (8)^2, (12), (16)^3, (24), (32)^2, (2, 2), (2, 4), (2, 6), (2, 8)^2, (2, 16)^2, (4, 8), (4, 16)$	1680p1
(2)	$(4)^2, (6), (8)^4, (12)^2, (16)^2, (2, 2), (2, 4), (2, 6), (2, 8)^2, (2, 16)^2, (4, 4), (4, 8)^2$	69360cb5
(2)	$(4)^2, (6), (8)^4, (12)^2, (16)^3, (2, 2), (2, 4), (2, 6), (2, 8)^2, (2, 16)^2, (4, 4), (4, 8)$	7605p6
(2)	$(4)^2, (6), (8)^4, (12)^2, (16)^4, (2, 2), (2, 4), (2, 6), (2, 8)^2, (4, 4), (4, 8)^2$	975a6
(2)	$(4)^2, (6), (8)^3, (12)^2, (16), (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^3, (4, 4), (4, 8)$	24a5
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^2, (4, 4), (4, 8)$	120a5
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 16)^2, (4, 4), (4, 8)^2$	816h4
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^3, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16), (4, 4), (4, 8)$	21a5
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^3, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (4, 4), (4, 8)^2$	21a6
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^4, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16), (4, 4)$	1050c7
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^4, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 16)^2, (4, 8)$	630c8
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^4, (32), (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 16), (4, 4)$	225c8
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^3, (32), (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16), (4, 4)$	225c7
(2)	$(4)^2, (6), (8)^2, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^3, (4, 4), (4, 8)$	192c5
(2)	$(4)^2, (6), (8)^2, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^2, (4, 4), (4, 8)^2$	294c3
(2)	$(4)^2, (6), (8)^2, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 16)^3, (4, 4), (4, 8)^2$	1200j8
(2)	$(4)^2, (6), (8)^2, (12)^2, (16)^2, (32), (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^2, (4, 4), (4, 8)$	225c3
(2)	$(4)^2, (6), (8)^4, (12)^2, (16), (2, 2), (2, 4), (2, 6), (2, 8)^2, (2, 16)^4, (4, 4), (4, 8)^2$	277440dv5
(2)	$(4)^2, (6), (8)^4, (12)^2, (16)^2, (2, 2), (2, 4), (2, 6), (2, 8)^2, (2, 16)^4, (4, 4), (4, 8)$	6720c6
(2)	$(4)^2, (6), (8)^4, (12)^2, (16)^3, (2, 2), (2, 4), (2, 6), (2, 8)^2, (2, 16)^2, (4, 4), (4, 8)^2$	130050bu6
(2)	$(4)^2, (6), (8)^4, (12)^2, (16)^4, (2, 2), (2, 4), (2, 6), (2, 8)^2, (2, 16)^2, (4, 4), (4, 8)$	1050c6
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^3, (4, 4), (4, 8)$	42a6
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^2, (4, 4), (4, 8)^2$	48a2

$G$	$\mathcal{H}_{\mathbb{Q}}(16, E)$	Label
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^4, (32), (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16), (4, 4)$	1470k7
(2)	$(4)^2, (6), (8)^2, (12)^2, (16)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^3, (4, 4), (4, 8)^2$	75b7
(2)	$(4)^2, (6), (8)^4, (12)^2, (16)^4, (2, 2), (2, 4), (2, 6), (2, 8)^2, (2, 16)^2, (4, 4), (4, 8)^2$	630c6
(2)	$(4)^2, (6), (8)^4, (12)^2, (16)^4, (32), (2, 2), (2, 4), (2, 6), (2, 8)^2, (2, 16)^2, (4, 4), (4, 8)$	3150bk6
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^4, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^2, (4, 4), (4, 8)$	195a7
(2)	$(4)^2, (6), (8)^4, (12)^2, (16)^3, (2, 2), (2, 4), (2, 6), (2, 8)^2, (2, 16)^4, (4, 4), (4, 8)^2$	1470k6
(2)	$(4)^2, (6), (8)^4, (12)^2, (16)^4, (2, 2), (2, 4), (2, 6), (2, 8)^2, (2, 16)^4, (4, 4), (4, 8)$	6720cd6
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^3, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^3, (4, 4), (4, 8)^2$	15a5
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^4, (2, 2), (2, 4)^2, (2, 6), (2, 8)^2, (2, 16)^3, (4, 4), (4, 8)^2$	15a6
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^4, (32), (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^2, (4, 4), (4, 8)$	1230f7
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^4, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^3, (4, 4), (4, 8)^2$	210e7
(2)	$(4)^2, (6), (8)^3, (12)^2, (16)^4, (32)^2, (2, 2), (2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^2, (4, 4), (4, 8)$	240d1
(3)	$(3, 3)$	19a1
(3)	$(15)$	50a1
(3)	$(15), (5, 15)$	225b1
(4)	$(8), (16), (2, 12), (2, 24)^2, (4, 12)$	150c3
(4)	$(8), (12), (16), (4, 4), (4, 8)^2, (4, 12)$	40a4
(4)	$(8), (12), (2, 8), (2, 16)^2, (2, 24), (4, 8), (4, 16)$	1734i1
(4)	$(8), (12), (16), (2, 4), (2, 8)^2, (2, 12), (4, 4)$	33a3
(4)	$(8), (12), (16), (2, 8), (2, 16)^2, (2, 24), (4, 8)$	2352v4
(4)	$(12), (2, 4), (2, 8)^2, (2, 12), (2, 16), (4, 4), (4, 8)$	289a1
(4)	$(8), (12), (16), (2, 4), (2, 8), (2, 12), (2, 16)^2, (4, 8)$	2880be6
(4)	$(8), (12), (16), (2, 8), (2, 16)^2, (2, 24), (4, 8), (4, 16)$	294c1
(4)	$(8), (12), (16), (2, 8), (2, 16)^2, (2, 24), (4, 8), (8, 8)$	192c6
(4)	$(12), (2, 4), (2, 8)^2, (2, 12), (2, 16)^2, (4, 4), (4, 8)$	200c1
(4)	$(8), (12), (16), (2, 4), (2, 8)^2, (2, 12), (2, 16), (4, 4), (4, 8)$	17a4
(4)	$(8), (12), (16), (2, 4), (2, 8)^2, (2, 12), (4, 4), (4, 8)^2$	17a1
(4)	$(8), (12), (16), (2, 4), (2, 8), (2, 12), (2, 16)^2, (4, 8), (4, 16)$	72a1
(4)	$(8), (12), (16), (2, 4), (2, 8), (2, 12), (2, 16)^2, (4, 8), (8, 8)$	3264h6
(4)	$(12), (24), (48), (2, 4), (2, 8), (2, 12), (2, 24)^2, (4, 4), (4, 12)$	960o8
(4)	$(8), (12), (2, 4), (2, 8)^2, (2, 12), (2, 16)^3, (4, 4), (4, 8)$	192d5
(4)	$(8), (12), (16), (2, 4), (2, 8)^2, (2, 12), (2, 16)^2, (4, 4), (4, 8)$	147a1
(4)	$(8), (12), (16), (2, 8), (2, 16)^2, (2, 24), (2, 32)^2, (4, 8), (4, 16)$	1470k1
(4)	$(8), (12), (16), (20), (2, 4), (2, 20), (4, 4), (4, 8), (4, 20), (6, 12), (8, 8)$	32a1
(4)	$(8), (12), (16), (24), (2, 4), (2, 8)^2, (2, 12), (2, 24)^2, (4, 12)$	720j8
(4)	$(8), (12), (16), (24), (2, 4), (2, 8), (2, 12), (2, 24)^2, (4, 4), (4, 12)$	1050k1
(4)	$(8), (12), (2, 4), (2, 8)^2, (2, 12), (2, 16)^3, (4, 4), (4, 8)^2$	1200j7

$G$	$\mathcal{H}_{\mathbb{Q}}(16, E)$	Label
(4)	(8), (12), (16), (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>3</sup> , (4, 4), (4, 8)	63a5
(4)	(8), (12), (16), (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>2</sup> , (2, 32), (4, 4), (4, 8)	225c1
(4)	(8), (12), (16), (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>2</sup> , (4, 4), (4, 8) <sup>2</sup>	144b4
(4)	(8), (12), (16) <sup>2</sup> , (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>2</sup> , (4, 4), (4, 8)	40a3
(4)	(8), (12), (16), (24), (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 24) <sup>2</sup> , (4, 4), (4, 12)	90c1
(4)	(8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24) <sup>2</sup> , (2, 4), (2, 8), (2, 12), (2, 16) <sup>2</sup> , (4, 8)	240a6
(4)	(8), (12), (16), (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>3</sup> , (4, 4), (4, 8) <sup>2</sup>	75b8
(4)	(12), (20) <sup>2</sup> , (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>2</sup> , (2, 20), (3, 12), (4, 4), (4, 8)	64a3
(4)	(8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24) <sup>2</sup> , (2, 4), (2, 8), (2, 12), (2, 16) <sup>2</sup> , (4, 8), (4, 16)	24a4
(4)	(8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24) <sup>2</sup> , (2, 4), (2, 8), (2, 12), (2, 16) <sup>2</sup> , (4, 8), (8, 8)	816h6
(4)	(8) <sup>2</sup> , (12), (16), (24) <sup>2</sup> , (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>2</sup> , (4, 4), (4, 8)	240a5
(4)	(8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24) <sup>2</sup> , (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>2</sup> , (4, 4), (4, 8)	231a1
(4)	(8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24) <sup>2</sup> , (2, 8), (2, 16) <sup>2</sup> , (2, 24), (4, 8), (4, 16) <sup>2</sup> , (8, 8)	240d6
(4)	(8) <sup>2</sup> , (12), (16), (24) <sup>2</sup> , (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>3</sup> , (4, 4), (4, 8)	816h5
(4)	(8) <sup>2</sup> , (12), (16), (24) <sup>2</sup> , (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>2</sup> , (4, 4), (4, 8) <sup>2</sup>	24a3
(4)	(8), (12), (20) <sup>2</sup> , (40), (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>2</sup> , (2, 20), (3, 12), (4, 4), (4, 8)	32a4
(4)	(8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24) <sup>2</sup> , (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>3</sup> , (4, 4), (4, 8)	120a1
(4)	(8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24) <sup>2</sup> , (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>2</sup> , (4, 4), (4, 8) <sup>2</sup>	120a4
(4)	(8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24) <sup>2</sup> , (32), (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>2</sup> , (4, 4), (4, 8)	21a4
(4)	(8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24) <sup>2</sup> , (32), (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>3</sup> , (4, 4), (4, 8)	48a5
(4)	(8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24) <sup>2</sup> , (32), (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>2</sup> , (4, 4), (4, 8) <sup>2</sup>	42a4
(4)	(8) <sup>2</sup> , (12), (16) <sup>3</sup> , (24) <sup>2</sup> , (32) <sup>2</sup> , (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>2</sup> , (4, 4), (4, 8)	195a1
(4)	(8) <sup>2</sup> , (12), (16) <sup>3</sup> , (24) <sup>2</sup> , (32) <sup>3</sup> , (2, 4), (2, 8), (2, 12), (2, 16) <sup>2</sup> , (4, 8), (4, 16)	1230f4
(4)	(8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24) <sup>2</sup> , (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>4</sup> , (4, 4), (4, 8) <sup>2</sup>	195a6
(4)	(8) <sup>2</sup> , (12), (16) <sup>3</sup> , (24) <sup>2</sup> , (32) <sup>2</sup> , (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>2</sup> , (2, 32), (4, 4), (4, 8)	15a7
(4)	(8) <sup>2</sup> , (12), (16) <sup>3</sup> , (24) <sup>2</sup> , (32) <sup>3</sup> , (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>2</sup> , (4, 4), (4, 8)	510e1
(4)	(8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24) <sup>2</sup> , (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>4</sup> , (4, 4), (4, 8) <sup>2</sup> , (4, 16)	1680p6
(4)	(8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24) <sup>2</sup> , (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>4</sup> , (4, 4), (4, 8) <sup>2</sup> , (8, 8)	510e6
(4)	(8) <sup>2</sup> , (12), (16) <sup>3</sup> , (24) <sup>2</sup> , (32) <sup>2</sup> , (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>3</sup> , (4, 4), (4, 8) <sup>2</sup>	240d7
(4)	(8) <sup>2</sup> , (12), (16) <sup>2</sup> , (24) <sup>2</sup> , (32) <sup>2</sup> , (2, 4), (2, 8) <sup>2</sup> , (2, 12), (2, 16) <sup>4</sup> , (4, 4), (4, 8) <sup>2</sup> , (4, 16)	210e6
(5)	(15)	11a3
(5)	(15), (5, 5)	11a1
(6)	(12), (24), (2, 6), (4, 12)	36a1
(6)	(12), (24), (2, 6), (2, 12) <sup>2</sup>	14a4
(6)	(12), (2, 6), (2, 12) <sup>2</sup> , (2, 24), (4, 12)	36a2
(6)	(12), (24), (2, 6), (2, 12) <sup>2</sup> , (4, 12)	20a1
(6)	(12), (24), (2, 6), (2, 12), (2, 24), (4, 12)	130a2

$G$	$\mathcal{H}_{\mathbb{Q}}(16, E)$	Label
(6)	(12), (24), (2, 6), (2, 12) <sup>2</sup> , (2, 24), (4, 12)	130a1
(6)	(12) <sup>2</sup> , (24) <sup>2</sup> , (2, 6), (2, 12) <sup>2</sup> , (2, 24) <sup>2</sup> , (4, 12)	30a1
(6)	(12), (24), (2, 6), (2, 12) <sup>2</sup> , (3, 6), (3, 12), (6, 6), (6, 12) <sup>2</sup>	14a1
(6)	(12) <sup>2</sup> , (24) <sup>2</sup> , (2, 6), (2, 12) <sup>2</sup> , (2, 24) <sup>3</sup> , (4, 12)	90c7
(6)	(12) <sup>2</sup> , (24) <sup>2</sup> , (48), (2, 6), (2, 12) <sup>2</sup> , (2, 24) <sup>2</sup> , (4, 12)	90c8
(7)	(21)	26b1
(8)	(16), (24), (32), (2, 8), (2, 16) <sup>2</sup> , (2, 24), (4, 8)	21a3
(8)	(16), (24), (32), (2, 8), (2, 16) <sup>2</sup> , (2, 24), (4, 8), (4, 16)	42a1
(8)	(16), (24), (32), (2, 8), (2, 16) <sup>2</sup> , (2, 24), (4, 8), (8, 8)	48a6
(8)	(16), (24), (32), (2, 8), (2, 16) <sup>2</sup> , (2, 24), (2, 32) <sup>2</sup> , (4, 8), (4, 16)	1230f1
(8)	(16), (24), (32), (2, 8), (2, 16) <sup>2</sup> , (2, 24), (4, 8), (4, 16) <sup>2</sup> , (8, 8)	15a4
(8)	(16) <sup>2</sup> , (24), (32) <sup>2</sup> , (48) <sup>2</sup> , (2, 8), (2, 16) <sup>2</sup> , (2, 24), (2, 32) <sup>2</sup> , (4, 8), (4, 16)	210e1
(10)	(20), (30), (40), (2, 10), (2, 20) <sup>2</sup> , (2, 30)	66c1
(12)	(24), (48), (2, 12), (2, 24) <sup>2</sup> , (4, 12)	90c3
(2, 2)	(2, 4) <sup>2</sup> , (2, 8) <sup>2</sup> , (2, 12), (2, 24), (4, 12)	960o6
(2, 2)	(2, 4) <sup>3</sup> , (2, 6), (2, 8) <sup>3</sup> , (4, 4)	120b2
(2, 2)	(2, 4) <sup>3</sup> , (2, 6), (2, 8) <sup>2</sup> , (2, 12), (4, 8)	14400dq3
(2, 2)	(2, 4) <sup>3</sup> , (2, 6), (2, 8) <sup>2</sup> , (4, 4), (4, 8)	7200bn1
(2, 2)	(2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (2, 12), (2, 24), (4, 12)	14400ef6
(2, 2)	(2, 4) <sup>2</sup> , (2, 6), (2, 8), (2, 16), (2, 24), (4, 8), (8, 8)	72a4
(2, 2)	(2, 4), (2, 6), (2, 8), (2, 12) <sup>2</sup> , (2, 24) <sup>2</sup> , (4, 12)	14400bo6
(2, 2)	(2, 4), (2, 6), (2, 8), (2, 12), (4, 4), (4, 8) <sup>3</sup>	200c2
(2, 2)	(2, 4) <sup>3</sup> , (2, 6), (2, 8) <sup>3</sup> , (2, 12), (4, 4)	33a1
(2, 2)	(2, 4) <sup>3</sup> , (2, 6), (2, 8) <sup>3</sup> , (4, 4), (4, 8)	320a2
(2, 2)	(2, 4) <sup>3</sup> , (2, 6), (2, 8) <sup>2</sup> , (2, 12), (4, 8), (8, 8)	576d2
(2, 2)	(2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>3</sup> , (2, 16), (2, 24), (4, 8)	63a2
(2, 2)	(2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (2, 16), (2, 24), (4, 8), (8, 8)	1344g2
(2, 2)	(2, 4) <sup>2</sup> , (2, 6), (2, 8), (2, 16) <sup>2</sup> , (2, 24), (4, 8), (8, 8)	6720c2
(2, 2)	(2, 4) <sup>3</sup> , (2, 6), (2, 8) <sup>4</sup> , (2, 12), (4, 4)	990e2
(2, 2)	(2, 4) <sup>3</sup> , (2, 6), (2, 8) <sup>3</sup> , (2, 12), (2, 16), (4, 8)	600a3
(2, 2)	(2, 4) <sup>3</sup> , (2, 6), (2, 8) <sup>3</sup> , (2, 12), (4, 4), (4, 8)	990c4
(2, 2)	(2, 4) <sup>3</sup> , (2, 6), (2, 8) <sup>2</sup> , (2, 12), (2, 16), (4, 8), (8, 8)	192d2
(2, 2)	(2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>3</sup> , (2, 16) <sup>2</sup> , (2, 24), (4, 8)	1050c2
(2, 2)	(2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>3</sup> , (2, 16), (2, 24), (4, 8), (8, 8)	294c4
(2, 2)	(2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (2, 12) <sup>3</sup> , (2, 24), (4, 12)	30a6
(2, 2)	(2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (2, 12) <sup>2</sup> , (2, 24) <sup>2</sup> , (4, 12)	720j6
(2, 2)	(2, 4) <sup>2</sup> , (2, 6), (2, 8) <sup>2</sup> , (2, 16) <sup>2</sup> , (2, 24), (4, 8), (8, 8)	4800cd5

$G$	$\mathcal{H}_{\mathbb{Q}}(16, E)$	Label
(2, 2)	$(2, 4)^2, (2, 6), (2, 8), (2, 12)^2, (4, 4), (4, 8)^3$	2880be3
(2, 2)	$(2, 4)^2, (2, 6), (2, 8), (2, 12)^2, (4, 4), (4, 8)^2, (8, 8)$	3264h3
(2, 2)	$(2, 4)^2, (2, 6), (2, 8), (2, 12)^2, (4, 8), (4, 16)^2, (8, 8)$	277440dv6
(2, 2)	$(2, 4), (2, 6), (2, 8), (2, 12)^3, (2, 24)^3, (4, 12)$	150c6
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12), (4, 4), (4, 8)$	525b3
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12)^3, (4, 4)$	210a6
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12)^3, (4, 12)$	240b2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12), (2, 16)^2, (4, 8)$	40560bg2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12), (2, 16), (4, 8), (8, 8)$	1734i3
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12), (4, 4), (4, 8)^2$	360a2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^2, (2, 12), (2, 16)^2, (4, 8), (8, 8)$	576d4
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^2, (2, 12), (4, 4), (4, 8)^3$	14400dq2
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^2, (2, 24), (4, 8), (4, 16)$	630c2
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^2, (2, 24), (4, 8), (8, 8)$	6720cd2
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^2, (2, 12)^2, (4, 4), (4, 8)^3$	17a2
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^2, (2, 12)^2, (4, 4), (4, 8)^2, (8, 8)$	69360cb3
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^2, (2, 12)^2, (4, 8), (4, 16)^2, (8, 8)$	1200j4
(2, 2)	$(2, 4)^2, (2, 6), (2, 8), (2, 12)^2, (2, 16), (4, 4), (4, 8)^2, (8, 8)$	72a2
(2, 2)	$(2, 4), (2, 6), (2, 8), (2, 10)^2, (2, 12), (4, 4), (4, 8), (4, 20), (6, 6), (8, 8)$	64a1
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12), (2, 16)^2, (4, 8)$	441c2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12), (2, 16), (4, 4), (4, 8)$	525b2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12), (4, 4), (4, 8)^2$	306c3
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12)^3, (4, 4), (4, 12)$	14400bo2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12), (2, 16)^2, (4, 8), (4, 16)$	1200j2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12), (2, 16)^2, (4, 8), (8, 8)$	144b3
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12), (2, 16), (4, 4), (4, 8)^2$	306c2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12), (4, 4), (4, 8)^3$	7056bx4
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^2, (2, 10)^2, (2, 20), (4, 4), (4, 8), (6, 6)$	800a1
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^2, (2, 12), (2, 16)^3, (4, 8), (8, 8)$	69360cb6
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^2, (2, 12), (2, 16), (4, 4), (4, 8)^3$	2880be2
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^4, (2, 12)^2, (4, 4), (4, 8), (8, 8)$	252150c4
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^4, (2, 12)^2, (4, 8), (4, 16), (8, 8)$	6150n3
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^3, (2, 12)^2, (2, 16), (4, 4), (4, 8), (8, 8)$	14400y4
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^3, (2, 12)^2, (4, 4), (4, 8)^3$	1008k3
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^3, (2, 16)^2, (2, 24), (2, 32), (4, 8), (4, 16)$	75b2
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^2, (2, 12)^2, (2, 16), (4, 4), (4, 8)^3$	147a2
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^2, (2, 12)^2, (2, 16), (4, 4), (4, 8)^2, (8, 8)$	144b2

$G$	$\mathcal{H}_{\mathbb{Q}}(16, E)$	Label
(2, 2)	$(2, 4)^2, (2, 6), (2, 8), (2, 10), (2, 12), (2, 20), (4, 4), (4, 8), (4, 20), (6, 12), (8, 8)$	32a2
(2, 2)	$(2, 4)^2, (2, 6), (2, 8), (2, 12)^2, (2, 16), (4, 4), (4, 8)^3, (8, 8)$	277440dv4
(2, 2)	$(2, 4), (2, 6), (2, 8)^3, (2, 12), (2, 16), (2, 24), (4, 8), (4, 16)^2, (8, 8)$	75b3
(2, 2)	$(2, 4), (2, 6), (2, 8)^2, (2, 12), (2, 16)^2, (2, 24), (4, 8), (4, 16)^2, (8, 8)$	1470k2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12), (2, 16)^3, (4, 8)$	975a2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12), (2, 16)^2, (4, 4), (4, 8)$	585f2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12), (2, 16)^2, (4, 8), (4, 16)$	45a2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12), (2, 16)^2, (4, 8), (8, 8)$	192c2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12), (2, 16), (4, 4), (4, 8)^2$	126b2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12), (4, 4), (4, 8)^3$	441c3
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12)^3, (2, 24), (4, 4), (4, 12)$	90c2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12), (2, 16)^3, (4, 8), (8, 8)$	960g5
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12), (2, 16), (4, 4), (4, 8)^3$	147a4
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^2, (2, 10)^2, (2, 12), (2, 20), (4, 4), (4, 8), (6, 6)$	576h2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^2, (2, 10)^2, (2, 12), (2, 20), (4, 4), (4, 8), (6, 12)$	288d1
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^2, (2, 12), (2, 16)^2, (4, 4), (4, 8)^3$	4800b2
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^4, (2, 12)^2, (4, 4), (4, 8)^3$	975a3
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^3, (2, 12)^2, (2, 16), (4, 4), (4, 8)^3$	63a4
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^3, (2, 12)^2, (2, 16), (4, 4), (4, 8)^2, (8, 8)$	45a4
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^2, (2, 12)^2, (2, 16)^2, (4, 4), (4, 8)^3$	40a1
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^2, (2, 12)^2, (2, 16)^2, (4, 4), (4, 8)^2, (8, 8)$	225c4
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^2, (2, 12)^2, (2, 16), (4, 4), (4, 8)^3, (4, 16)$	225c2
(2, 2)	$(2, 4)^2, (2, 6), (2, 8), (2, 12)^2, (2, 16)^2, (4, 4), (4, 8)^3, (8, 8)$	1200j5
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12), (2, 16)^3, (4, 4), (4, 8)$	960g2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12), (2, 16)^3, (4, 8), (4, 16)$	6150n2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12), (2, 16)^3, (4, 8), (8, 8)$	630c5
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12), (2, 16), (4, 4), (4, 8)^3$	2352v3
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12)^3, (4, 4), (4, 8)^3$	240a2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12), (2, 16)^2, (4, 4), (4, 8)^3$	225c5
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^2, (2, 12)^3, (2, 16), (4, 4), (4, 8)^2, (8, 8)$	24a2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^2, (2, 12), (2, 16)^3, (4, 4), (4, 8)^3$	277440dv2
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^4, (2, 12)^2, (2, 16)^2, (4, 4), (4, 8), (8, 8)$	141120e13
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^3, (2, 12)^2, (2, 16)^2, (4, 4), (4, 8)^3$	2352v2
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^3, (2, 12)^2, (2, 16)^2, (4, 4), (4, 8)^2, (8, 8)$	192c3
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^3, (2, 12)^2, (2, 16)^2, (4, 4), (4, 8)^2, (8, 8)$	510e5
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^2, (2, 12)^2, (2, 16)^2, (4, 4), (4, 8)^3, (4, 16)$	130050bu2
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^2, (2, 12)^2, (2, 16)^2, (4, 4), (4, 8)^3, (8, 8)$	2880r4

$G$	$\mathcal{H}_{\mathbb{Q}}(16, E)$	Label
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12)^3, (4, 4), (4, 8)^3$	231a3
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12), (2, 16)^2, (4, 4), (4, 8)^3$	1050c5
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12)^3, (2, 16), (4, 4), (4, 8)^3$	120a3
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12), (2, 16)^3, (4, 4), (4, 8)^3$	45a5
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^4, (2, 12)^2, (2, 16)^2, (4, 4), (4, 8)^3$	1050c3
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^4, (2, 12)^2, (2, 16)^2, (4, 4), (4, 8)^2, (8, 8)$	630c4
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^4, (2, 12)^2, (2, 16), (4, 4), (4, 8)^3, (4, 16)$	25200dz3
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^3, (2, 12)^2, (2, 16)^3, (4, 4), (4, 8)^2, (8, 8)$	294c2
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^3, (2, 12)^2, (2, 16)^2, (2, 24), (4, 8), (4, 16)^2, (8, 8)$	1680p2
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^2, (2, 12)^2, (2, 16)^3, (4, 4), (4, 8)^3, (8, 8)$	75b5
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12)^3, (2, 16), (4, 4), (4, 8)^3$	21a2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12), (2, 16)^3, (4, 4), (4, 8)^3$	1470k5
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12)^3, (2, 16)^2, (4, 4), (4, 8)^2, (8, 8)$	42a3
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^4, (2, 12)^2, (2, 16)^2, (4, 4), (4, 8)^3, (4, 16)$	3150bk4
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^3, (2, 12)^2, (2, 16)^3, (4, 4), (4, 8)^3, (8, 8)$	1470k4
(2, 2)	$(2, 4)^2, (2, 6), (2, 8)^4, (2, 12)^2, (2, 16)^4, (4, 4), (4, 8)^2, (8, 8)$	6720cd4
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12)^3, (2, 16)^3, (4, 4), (4, 8)^3$	195a5
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12)^3, (2, 16)^3, (4, 4), (4, 8)^3, (4, 16)$	240d2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^3, (2, 12)^3, (2, 16)^4, (4, 4), (4, 8)^3, (8, 8)$	15a2
(2, 2)	$(2, 4)^3, (2, 6), (2, 8)^4, (2, 12)^3, (2, 16)^5, (4, 4), (4, 8)^3, (8, 8)$	210e5
(2, 4)	$(2, 8)^2, (2, 12), (2, 16)^2, (4, 4), (4, 8)^3$	120a2
(2, 4)	$(2, 8)^2, (2, 12), (2, 16)^2, (4, 4), (4, 8)^2, (8, 8)$	24a1
(2, 4)	$(2, 8)^2, (2, 12), (2, 16)^2, (2, 24), (4, 4), (4, 8)^3$	21a1
(2, 4)	$(2, 8)^2, (2, 12), (2, 16)^2, (2, 24), (4, 4), (4, 8)^2, (8, 8)$	42a2
(2, 4)	$(2, 8)^2, (2, 12), (2, 16)^2, (4, 4), (4, 8)^3, (4, 12)$	195a3
(2, 4)	$(2, 8)^2, (2, 12), (2, 16)^3, (2, 24), (4, 4), (4, 8)^3$	195a2
(2, 4)	$(2, 8)^2, (2, 12), (2, 16)^3, (2, 24)^2, (4, 8), (4, 16)^2, (8, 8)$	1230f2
(2, 4)	$(2, 8)^2, (2, 12), (2, 16)^3, (2, 24), (4, 4), (4, 8)^3, (4, 16)$	510e2
(2, 4)	$(2, 8)^2, (2, 12), (2, 16)^3, (2, 24), (4, 4), (4, 8)^3, (8, 8)$	240d5
(2, 4)	$(2, 8)^2, (2, 12), (2, 16)^2, (4, 4), (4, 8)^3, (4, 12), (4, 16), (8, 8)$	510e3
(2, 4)	$(2, 8), (2, 12), (2, 16), (2, 24), (4, 4), (4, 8)^3, (4, 12), (4, 16)^2, (8, 8)$	15a1
(2, 4)	$(2, 8)^2, (2, 12), (2, 16)^3, (2, 24), (2, 32), (4, 4), (4, 8)^3, (4, 16)$	15a3
(2, 4)	$(2, 8)^2, (2, 12), (2, 16)^2, (4, 4), (4, 8)^3, (4, 12), (4, 16)^2, (8, 8)$	240d4
(2, 4)	$(2, 8)^2, (2, 12), (2, 16)^2, (2, 24)^2, (4, 4), (4, 8)^3, (4, 12), (4, 16)^2, (8, 8)$	210e3
(2, 6)	$(2, 12)^3, (2, 24)^3, (4, 12)$	30a2
(2, 8)	$(2, 16)^2, (2, 24), (2, 32)^2, (4, 8), (4, 16)^2, (8, 8)$	210e2