BLT-sets of Q(4, 17)

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There are 6 BLT-sets.

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The BLT-Sets

3.1 Isomorphism Type 0

Stabilizer has order 176256
Plane intersection type is 18
Plane invariant is

$$\left[\ 18\ \right]$$

$\rightarrow$	1_1
18_0	1

$\downarrow$	1_1
18_0	18

$C_0 = \{0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17\}_{18}$
$C_1 = \{0\}_1$

$\rightarrow$	1_1
18_0	1

$\downarrow$	1_1
18_0	18

$C_0 = \{0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17\}_{18}$
$C_1 = \{0\}_1$
Column cell 1:
Order of the group that is induced on the object is 4896
Number of ancestors on 5-sets is 4.
Number of orbits on 5-sets is 4.
With 1 orbits on the object
Orbit lengths: 18
The points by ranks:

i	Rank
0	0
1	1
2	100
3	101
4	102

i	Rank
5	103
6	112
7	106
8	115
9	108

i	Rank
10	109
11	110
12	111
13	104
14	113

i	Rank
15	105
16	114
17	107

The points:

$$P_0 = (0, 1, 0, 0, 0) P_1 = (0, 0, 1, 0, 0) P_2 = (0, 1, 11, 16, 11) P_3 = (0, 1, 7, 8, 14)$$
$$P_4 = (0, 1, 5, 11, 15) P_5 = (0, 1, 6, 4, 7) P_6 = (0, 1, 6, 13, 10) P_7 = (0, 1, 3, 12, 4)$$
$$P_8 = (0, 1, 11, 1, 6) P_9 = (0, 1, 10, 15, 5) P_{10} = (0, 1, 3, 5, 13) P_{11} = (0, 1, 14, 3, 1)$$
$$P_{12} = (0, 1, 12, 7, 8) P_{13} = (0, 1, 12, 10, 9) P_{14} = (0, 1, 5, 6, 2) P_{15} = (0, 1, 14, 14, 16)$$
$$P_{16} = (0, 1, 7, 9, 3) P_{17} = (0, 1, 10, 2, 12)$$

Stabilizer of order 176256 is generated by:

$$g_1 = \begin{bmatrix} 16 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \end{bmatrix}$$

with 324 fixed points

$$g_2 = \begin{bmatrix} 4 & 0 & 0 & 0 & 0 \\ 0 & 4 & 0 & 0 & 0 \\ 0 & 0 & 4 & 0 & 0 \\ 0 & 0 & 0 & 13 & 0 \\ 0 & 0 & 0 & 0 & 13 \end{bmatrix}$$

with 20 fixed points

$$g_3 = \begin{bmatrix} 1 & 0 & 0 & 0 & 0 \\ 0 & 8 & 0 & 0 & 0 \\ 0 & 0 & 15 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 \end{bmatrix}$$

with 20 fixed points

$$g_4 = \begin{bmatrix} 8 & 0 & 0 & 0 & 0 \\ 0 & 12 & 0 & 0 & 0 \\ 0 & 0 & 11 & 0 & 0 \\ 0 & 0 & 0 & 9 & 0 \\ 0 & 0 & 0 & 0 & 9 \end{bmatrix}$$

with 4 fixed points

$$g_5 = \begin{bmatrix} 9 & 0 & 0 & 12 & 13 \\ 0 & 4 & 0 & 0 & 0 \\ 0 & 0 & 4 & 0 & 0 \\ 15 & 0 & 0 & 6 & 5 \\ 6 & 0 & 0 & 11 & 6 \end{bmatrix}$$

with 290 fixed points

$$g_6 = \begin{bmatrix} 15 & 0 & 0 & 10 & 8 \\ 0 & 4 & 0 & 0 & 0 \\ 0 & 0 & 4 & 0 & 0 \\ 4 & 0 & 0 & 3 & 6 \\ 5 & 0 & 0 & 3 & 3 \end{bmatrix}$$

with 290 fixed points

$$g_7 = \begin{bmatrix} 15 & 0 & 0 & 14 & 1 \\ 0 & 16 & 0 & 0 & 0 \\ 0 & 10 & 16 & 8 & 14 \\ 8 & 14 & 0 & 8 & 9 \\ 10 & 8 & 0 & 13 & 8 \end{bmatrix}$$

with 2 fixed points

$$g_8 = \begin{bmatrix} 15 & 0 & 0 & 14 & 1 \\ 0 & 2 & 0 & 0 & 0 \\ 0 & 10 & 9 & 6 & 2 \\ 8 & 4 & 0 & 7 & 3 \\ 10 & 12 & 0 & 10 & 7 \end{bmatrix}$$

with 2 fixed points

$$g_9 = \begin{bmatrix} 2 & 0 & 0 & 3 & 16 \\ 0 & 2 & 14 & 16 & 11 \\ 0 & 11 & 2 & 6 & 2 \\ 9 & 2 & 11 & 8 & 2 \\ 7 & 6 & 16 & 1 & 8 \end{bmatrix}$$

with 2 fixed points

3.2 Isomorphism Type 1

Stabilizer has order 648
Plane intersection type is $9^2\ 3^{648}$
Plane invariant is

$$\begin{bmatrix} 9 & 0 \\ 0 & 9 \end{bmatrix}$$

$\rightarrow$	2_1
18_0	1

$\downarrow$	2_1
18_0	9

$C_0 = \{0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17\}_{18}$
$C_1 = \{0, 1\}_2$

$\rightarrow$	2_1
18_0	1

$\downarrow$	2_1
18_0	9

$C_0 = \{0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17\}_{18}$
$C_1 = \{0, 1\}_2$
Column cell 1:
Order of the group that is induced on the object is 648
Number of ancestors on 5-sets is 48.
Number of orbits on 5-sets is 48.
With 1 orbits on the object
Orbit lengths: 18
The points by ranks:

i	Rank
0	0
1	1
2	100
3	101
4	102

i	Rank
5	103
6	112
7	106
8	115
9	3149

i	Rank
10	2309
11	2419
12	2680
13	5020
14	2380

i	Rank
15	3989
16	1480
17	4349

The points:

$$P_0 = (0, 1, 0, 0, 0)P_1 = (0, 0, 1, 0, 0)P_2 = (0, 1, 11, 16, 11)P_3 = (0, 1, 7, 8, 14)$$
$$P_4 = (0, 1, 5, 11, 15)P_5 = (0, 1, 6, 4, 7)P_6 = (0, 1, 6, 13, 10)P_7 = (0, 1, 3, 12, 4)$$
$$P_8 = (0, 1, 11, 1, 6)P_9 = (1, 9, 12, 12, 15)P_{10} = (1, 11, 9, 8, 13)P_{11} = (1, 12, 16, 4, 7)$$
$$P_{12} = (1, 1, 7, 3, 3)P_{13} = (1, 10, 2, 4, 16)P_{14} = (1, 10, 2, 14, 7)P_{15} = (1, 11, 9, 5, 14)$$
$$P_{16} = (1, 1, 7, 9, 1)P_{17} = (1, 9, 12, 11, 4)$$

Stabilizer of order 648 is generated by:

$$g_1 = \begin{bmatrix} 2 & 0 & 0 & 14 & 1 \\ 0 & 16 & 0 & 0 & 0 \\ 0 & 0 & 16 & 0 & 0 \\ 8 & 0 & 0 & 9 & 8 \\ 10 & 0 & 0 & 4 & 9 \end{bmatrix}$$

with 18 fixed points

$$g_2 = \begin{bmatrix} 9 & 0 & 0 & 12 & 13 \\ 0 & 4 & 0 & 0 & 0 \\ 0 & 0 & 4 & 0 & 0 \\ 15 & 0 & 0 & 6 & 5 \\ 6 & 0 & 0 & 11 & 6 \end{bmatrix}$$

with 290 fixed points

$$g_3 = \begin{bmatrix} 15 & 0 & 0 & 14 & 1 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 7 & 1 & 9 & 3 \\ 9 & 3 & 0 & 9 & 8 \\ 7 & 9 & 0 & 4 & 9 \end{bmatrix}$$

with 20 fixed points

$$g_4 = \begin{bmatrix} 2 & 0 & 0 & 14 & 1 \\ 0 & 15 & 3 & 1 & 6 \\ 0 & 6 & 15 & 11 & 15 \\ 9 & 15 & 6 & 9 & 15 \\ 7 & 11 & 1 & 16 & 9 \end{bmatrix}$$

with 20 fixed points

$$g_5 = \begin{bmatrix} 0 & 12 & 12 & 10 & 9 \\ 6 & 3 & 4 & 4 & 5 \\ 6 & 15 & 3 & 14 & 10 \\ 13 & 10 & 5 & 10 & 7 \\ 5 & 14 & 4 & 14 & 10 \end{bmatrix}$$

with 18 fixed points

3.3 Isomorphism Type 2

Stabilizer has order 144
Plane intersection type is 6 4^{72} 3^{508}
Plane invariant is

$$\begin{bmatrix} 6 \end{bmatrix}$$

$\rightarrow$	1_1
6_0	1
12_2	0

$\downarrow$	1_1
6_0	6
12_2	0

$C_0 = \{0, 1, 2, 3, 4, 5\}_6$
$C_1 = \{0\}_1$
$C_2 = \{6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17\}_{12}$

$\rightarrow$	1_1	54_2	18_4
6_0	1	18	0
12_3	0	9	6

$\downarrow$	1_1	54_2	18_4
6_0	6	2	0
12_3	0	2	4

$C_0 = \{0, 1, 2, 3, 4, 5\}_6$
$C_1 = \{72\}_1$
$C_2 = \{0, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 24, 25, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 45, 46, 53, 54, 55, 56, 58, 59, 60$
$C_3 = \{6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17\}_{12}$
$C_4 = \{1, 12, 22, 23, 26, 27, 28, 29, 30, 31, 44, 47, 48, 49, 50, 51, 52, 57\}_{18}$
Column cell 1:
Column cell 2:
Column cell 4:
Order of the group that is induced on the object is 144
Number of ancestors on 5-sets is 101.
Number of orbits on 5-sets is 101.
With 2 orbits on the object
Orbit lengths: 6, 12
The points by ranks:

i	Rank
0	0
1	1
2	100
3	101
4	104

i	Rank
5	113
6	1795
7	4644
8	4656
9	2732

i	Rank
10	3692
11	4821
12	3170
13	5061
14	2450

i	Rank
15	5067
16	4827
17	2663

The points:

$$P_0 = (0, 1, 0, 0, 0) P_1 = (0, 0, 1, 0, 0) P_2 = (0, 1, 11, 16, 11) P_3 = (0, 1, 7, 8, 14)$$
$$P_4 = (0, 1, 12, 10, 9) P_5 = (0, 1, 5, 6, 2) P_6 = (1, 6, 16, 10, 9) P_7 = (1, 10, 1, 16, 11)$$
$$P_8 = (1, 11, 4, 16, 11) P_9 = (1, 5, 2, 2, 3) P_{10} = (1, 5, 2, 9, 12) P_{11} = (1, 12, 9, 14, 8)$$

$$P_{12} = (1,3,8,4,15)P_{13} = (1,12,9,7,16)P_{14} = (1,3,8,11,7)P_{15} = (1,14,15,7,16)$$

$$P_{16} = (1,14,15,14,8)P_{17} = (1,7,13,9,3)$$

Stabilizer of order 144 is generated by:

$$g_1 = \begin{bmatrix} 2 & 0 & 0 & 10 & 8 \\ 0 & 13 & 0 & 0 & 0 \\ 0 & 0 & 13 & 0 & 0 \\ 4 & 0 & 0 & 14 & 11 \\ 5 & 0 & 0 & 14 & 14 \end{bmatrix}$$

with 290 fixed points

$$g_2 = \begin{bmatrix} 13 & 0 & 0 & 0 & 0 \\ 0 & 13 & 0 & 0 & 0 \\ 0 & 0 & 13 & 0 & 0 \\ 0 & 0 & 0 & 0 & 10 \\ 0 & 0 & 0 & 5 & 0 \end{bmatrix}$$

with 290 fixed points

$$g_3 = \begin{bmatrix} 8 & 0 & 0 & 11 & 2 \\ 0 & 16 & 0 & 0 & 0 \\ 0 & 12 & 16 & 11 & 15 \\ 1 & 15 & 0 & 5 & 10 \\ 14 & 11 & 0 & 5 & 5 \end{bmatrix}$$

with 18 fixed points

$$g_4 = \begin{bmatrix} 15 & 0 & 0 & 10 & 8 \\ 0 & 16 & 0 & 0 & 0 \\ 0 & 10 & 1 & 15 & 5 \\ 13 & 3 & 0 & 14 & 11 \\ 12 & 9 & 0 & 14 & 14 \end{bmatrix}$$

with 2 fixed points

$$g_5 = \begin{bmatrix} 2 & 0 & 0 & 7 & 9 \\ 0 & 8 & 5 & 13 & 10 \\ 0 & 10 & 0 & 0 & 0 \\ 13 & 8 & 0 & 14 & 11 \\ 12 & 7 & 0 & 14 & 14 \end{bmatrix}$$

with 4 fixed points

3.4 Isomorphism Type 3

Stabilizer has order 24
Plane intersection type is $5^6\ 4^{21}\ 3^{672}$
Plane invariant is

$$\begin{bmatrix} 5 & 1 & 1 & 2 & 1 & 1 \\ 1 & 5 & 2 & 1 & 1 & 1 \\ 1 & 2 & 5 & 1 & 1 & 1 \\ 2 & 1 & 1 & 5 & 1 & 1 \\ 1 & 1 & 1 & 1 & 5 & 2 \\ 1 & 1 & 1 & 1 & 2 & 5 \end{bmatrix}$$

$\rightarrow$	6_1
6_0	3
12_2	1

$\downarrow$	6_1
6_0	3
12_2	2

$C_0 = \{0,1,4,5,10,15\}_6$
$C_1 = \{0,1,2,3,4,5\}_6$

$C_2 = \{2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17\}_{12}$

$\rightarrow$	6_1	6_2	15_4
6_0	3	2	0
12_3	1	1	5

$\downarrow$	6_1	6_2	15_4
6_0	3	2	0
12_3	2	2	4

$C_0 = \{0, 1, 4, 5, 10, 15\}_6$
$C_1 = \{0, 6, 7, 12, 15, 26\}_6$
$C_2 = \{5, 16, 17, 21, 22, 25\}_6$
$C_3 = \{2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17\}_{12}$
$C_4 = \{1, 2, 3, 4, 8, 9, 10, 11, 13, 14, 18, 19, 20, 23, 24\}_{15}$
Column cell 1:
Column cell 2:
Column cell 4:
Order of the group that is induced on the object is 24
Number of ancestors on 5-sets is 416.
Number of orbits on 5-sets is 416.
With 2 orbits on the object
Orbit lengths: 6, 12
The points by ranks:

i	Rank
0	0
1	1
2	100
3	101
4	105

i	Rank
5	257
6	1728
7	2037
8	4778
9	4117

i	Rank
10	3480
11	3962
12	1731
13	3691
14	2646

i	Rank
15	2047
16	3961
17	2039

The points:

$$P_0 = (0, 1, 0, 0, 0) P_1 = (0, 0, 1, 0, 0) P_2 = (0, 1, 11, 16, 11) P_3 = (0, 1, 7, 8, 14)$$
$$P_4 = (0, 1, 14, 14, 16) P_5 = (0, 1, 14, 6, 9) P_6 = (1, 6, 4, 1, 9) P_7 = (1, 7, 9, 12, 6)$$
$$P_8 = (1, 4, 5, 8, 8) P_9 = (1, 14, 9, 6, 10) P_{10} = (1, 9, 7, 2, 2) P_{11} = (1, 16, 5, 10, 14)$$
$$P_{12} = (1, 10, 16, 1, 9) P_{13} = (1, 12, 15, 9, 12) P_{14} = (1, 15, 6, 15, 3) P_{15} = (1, 8, 10, 12, 6)$$
$$P_{16} = (1, 4, 3, 10, 14) P_{17} = (1, 14, 13, 12, 6)$$

Stabilizer of order 24 is generated by:

$$g_1 = \begin{bmatrix} 9 & 0 & 0 & 12 & 13 \\ 0 & 4 & 0 & 0 & 0 \\ 0 & 0 & 4 & 0 & 0 \\ 15 & 0 & 0 & 6 & 5 \\ 6 & 0 & 0 & 11 & 6 \end{bmatrix}$$

with 290 fixed points

$$g_2 = \begin{bmatrix} 7 & 0 & 0 & 11 & 16 \\ 0 & 2 & 0 & 0 & 0 \\ 0 & 0 & 2 & 0 & 0 \\ 8 & 0 & 0 & 4 & 1 \\ 14 & 0 & 0 & 2 & 4 \end{bmatrix}$$

with 20 fixed points

$$g_3 = \begin{bmatrix} 2 & 0 & 0 & 14 & 1 \\ 0 & 0 & 3 & 0 & 0 \\ 0 & 6 & 0 & 0 & 0 \\ 9 & 0 & 0 & 7 & 3 \\ 7 & 0 & 0 & 10 & 7 \end{bmatrix}$$

with 20 fixed points

$$g_4 = \begin{bmatrix} 11 & 6 & 0 & 12 & 7 \\ 0 & 4 & 5 & 5 & 13 \\ 14 & 10 & 4 & 15 & 16 \\ 1 & 6 & 2 & 10 & 14 \\ 4 & 6 & 7 & 11 & 4 \end{bmatrix}$$

with 0 fixed points

3.5 Isomorphism Type 4

Stabilizer has order 32
Plane intersection type is $4^{24}\ 3^{720}$
Plane invariant is too big (24 planes)

$\rightarrow$	8_1	16_3
2_0	8	0
16_2	1	4

$\downarrow$	8_1	16_3
2_0	2	0
16_2	2	4

$C_0 = \{1, 3\}_2$
$C_1 = \{1, 9, 10, 11, 15, 18, 21, 23\}_8$
$C_2 = \{0, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17\}_{16}$
$C_3 = \{0, 2, 3, 4, 5, 6, 7, 8, 12, 13, 14, 16, 17, 19, 20, 22\}_{16}$

$\rightarrow$	8_1	16_3
2_0	8	0
16_2	1	4

$\downarrow$	8_1	16_3
2_0	2	0
16_2	2	4

$C_0 = \{1, 3\}_2$
$C_1 = \{1, 9, 11, 17, 18, 21, 22, 23\}_8$
$C_2 = \{0, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17\}_{16}$
$C_3 = \{0, 2, 3, 4, 5, 6, 7, 8, 10, 12, 13, 14, 15, 16, 19, 20\}_{16}$
Column cell 1:
Column cell 3:
Order of the group that is induced on the object is 32
Number of ancestors on 5-sets is 708.
Number of orbits on 5-sets is 284.
With 2 orbits on the object
Orbit lengths: 2, 16
The points by ranks:

i	Rank
0	0
1	1
2	100
3	101
4	157

i	Rank
5	2280
6	2309
7	2007
8	4925
9	3617

i	Rank
10	5081
11	3962
12	214
13	4675
14	2559

i	Rank
15	1591
16	4900
17	3815

The points:

$$P_0 = (0, 1, 0, 0, 0) P_1 = (0, 0, 1, 0, 0) P_2 = (0, 1, 11, 16, 11) P_3 = (0, 1, 7, 8, 14)$$

$$P_4 = (0, 1, 10, 5, 15) P_5 = (1, 9, 7, 16, 13) P_6 = (1, 11, 9, 8, 13) P_7 = (1, 6, 13, 1, 6)$$

$$P_8 = (1, 1, 12, 9, 8) P_9 = (1, 2, 11, 8, 12) P_{10} = (1, 8, 3, 8, 16) P_{11} = (1, 16, 5, 10, 14)$$

$$P_{12} = (0, 1, 10, 11, 13) P_{13} = (1, 6, 16, 2, 11) P_{14} = (1, 15, 10, 10, 7) P_{15} = (1, 5, 13, 2, 1)$$

$$P_{16} = (1, 11, 1, 7, 8) P_{17} = (1, 12, 13, 7, 14)$$

Stabilizer of order 32 is generated by:

$$g_1 = \begin{bmatrix} 3 & 0 & 0 & 9 & 14 \\ 0 & 13 & 0 & 0 & 0 \\ 0 & 14 & 13 & 10 & 9 \\ 7 & 9 & 0 & 9 & 4 \\ 13 & 10 & 0 & 2 & 9 \end{bmatrix}$$

with 20 fixed points

$$g_2 = \begin{bmatrix} 12 & 0 & 0 & 2 & 5 \\ 0 & 16 & 6 & 1 & 6 \\ 0 & 12 & 16 & 11 & 15 \\ 11 & 15 & 6 & 4 & 11 \\ 1 & 11 & 1 & 14 & 4 \end{bmatrix}$$

with 20 fixed points

$$g_3 = \begin{bmatrix} 3 & 0 & 12 & 2 & 12 \\ 0 & 14 & 4 & 1 & 12 \\ 0 & 0 & 6 & 0 & 0 \\ 7 & 0 & 14 & 2 & 1 \\ 13 & 0 & 3 & 8 & 15 \end{bmatrix}$$

with 4 fixed points

3.6 Isomorphism Type 5

Stabilizer has order 4896
Plane intersection type is 3^{816}
Plane invariant is too big (816 planes)

$\rightarrow$	816_1
18_0	136

$\downarrow$	816_1
18_0	3

$C_0 = \{0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17\}_{18}$
$C_1 = \{0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42,$
Order of the group that is induced on the object is 4896
Number of ancestors on 5-sets is 4.
Number of orbits on 5-sets is 4.
With 1 orbits on the object
Orbit lengths: 18
The points by ranks:

i	Rank
0	0
1	1
2	100
3	146
4	1462

i	Rank
5	4231
6	4367
7	4129
8	3042
9	5191

i	Rank
10	4437
11	3276
12	3364
13	3449
14	3127

i	Rank
15	4906
16	5145
17	3730

The points:

$$P_0 = (0, 1, 0, 0, 0) P_1 = (0, 0, 1, 0, 0) P_2 = (0, 1, 11, 16, 11) P_3 = (0, 1, 11, 9, 12)$$

$$P_4 = (1, 1, 6, 10, 1) P_5 = (1, 5, 13, 7, 10) P_6 = (1, 16, 10, 15, 4) P_7 = (1, 13, 11, 6, 10)$$

$$P_8 = (1, 6, 8, 14, 5) P_9 = (1, 5, 13, 15, 16) P_{10} = (1, 7, 9, 1, 4) P_{11} = (1, 7, 2, 16, 15)$$

$$P_{12} = (1, 5, 1, 14, 2) P_{13} = (1, 9, 3, 3, 2) P_{14} = (1, 3, 13, 3, 15) P_{15} = (1, 9, 5, 7, 8)$$

$$P_{16} = (1, 15, 3, 12, 16) P_{17} = (1, 10, 8, 6, 12)$$

Stabilizer of order 4896 is generated by:

$$g_1 = \begin{bmatrix} 10 & 0 & 0 & 13 & 12 \\ 0 & 4 & 0 & 0 & 0 \\ 0 & 0 & 13 & 0 & 0 \\ 10 & 0 & 0 & 1 & 2 \\ 9 & 0 & 0 & 13 & 16 \end{bmatrix}$$

with 4 fixed points

$$g_2 = \begin{bmatrix} 7 & 0 & 0 & 7 & 15 \\ 0 & 15 & 0 & 0 & 0 \\ 0 & 0 & 8 & 0 & 0 \\ 8 & 0 & 0 & 7 & 3 \\ 7 & 0 & 0 & 11 & 11 \end{bmatrix}$$

with 4 fixed points

$$g_3 = \begin{bmatrix} 14 & 0 & 0 & 1 & 9 \\ 0 & 8 & 0 & 0 & 0 \\ 16 & 10 & 15 & 1 & 2 \\ 5 & 8 & 0 & 3 & 3 \\ 3 & 7 & 0 & 7 & 6 \end{bmatrix}$$

with 4 fixed points

$$g_4 = \begin{bmatrix} 16 & 0 & 0 & 0 & 0 \\ 0 & 0 & 11 & 0 & 0 \\ 0 & 14 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 5 \\ 0 & 0 & 0 & 7 & 0 \end{bmatrix}$$

with 20 fixed points

$$g_5 = \begin{bmatrix} 16 & 0 & 0 & 0 & 0 \\ 0 & 15 & 12 & 16 & 10 \\ 0 & 6 & 15 & 11 & 15 \\ 0 & 15 & 10 & 2 & 10 \\ 0 & 11 & 16 & 14 & 2 \end{bmatrix}$$

with 18 fixed points

Chapter 4

The BLT-Sets in Numeric Form

0, 1, 100, 101, 102, 103, 112, 106, 115, 108, 109, 110, 111, 104, 113, 105, 114, 107
0, 1, 100, 101, 102, 103, 112, 106, 115, 3149, 2309, 2419, 2680, 5020, 2380, 3989, 1480, 4349
0, 1, 100, 101, 104, 113, 1795, 4644, 4656, 2732, 3692, 4821, 3170, 5061, 2450, 5067, 4827, 2663
0, 1, 100, 101, 105, 257, 1728, 2037, 4778, 4117, 3480, 3962, 1731, 3691, 2646, 2047, 3961, 2039
0, 1, 100, 101, 157, 2280, 2309, 2007, 4925, 3617, 5081, 3962, 214, 4675, 2559, 1591, 4900, 3815
0, 1, 100, 146, 1462, 4231, 4367, 4129, 3042, 5191, 4437, 3276, 3364, 3449, 3127, 4906, 5145, 3730

```
INT BLT_17_size = 18;
INT BLT_17_nb_reps = 6;
INT BLT_17_reps[] = {
0, 1, 100, 101, 102, 103, 112, 106, 115, 108, 109, 110, 111, 104, 113, 105, 114, 107,
0, 1, 100, 101, 102, 103, 112, 106, 115, 3149, 2309, 2419, 2680, 5020, 2380, 3989, 1480, 4349,
0, 1, 100, 101, 104, 113, 1795, 4644, 4656, 2732, 3692, 4821, 3170, 5061, 2450, 5067, 4827, 2663,
0, 1, 100, 101, 105, 257, 1728, 2037, 4778, 4117, 3480, 3962, 1731, 3691, 2646, 2047, 3961, 2039,
0, 1, 100, 101, 157, 2280, 2309, 2007, 4925, 3617, 5081, 3962, 214, 4675, 2559, 1591, 4900, 3815,
0, 1, 100, 146, 1462, 4231, 4367, 4129, 3042, 5191, 4437, 3276, 3364, 3449, 3127, 4906, 5145, 3730,
};
const BYTE *BLT_17_stab_order[] = {
"176256",
"648",
"144",
"24",
"32",
"4896",
};
INT BLT_17_stab_gens[] = {
16,  0,  0,  0,  0,  0,  1,  0,  0,  0,  0,  0,  1,  0,  0,  0,  0,  0,  1,  0,  0,  0,  0,  0,  1,
 4,  0,  0,  0,  0,  0,  4,  0,  0,  0,  0,  0,  4,  0,  0,  0,  0,  0, 13,  0,  0,  0,  0,  0, 13,
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```

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11,  6,  0, 12,  7,  0,  4,  5,  5, 13, 14, 10,  4, 15, 16,  1,  6,  2, 10, 14,  4,  6,  7, 11,  4,
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12,  0,  0,  2,  5,  0, 16,  6,  1,  6,  0, 12, 16, 11, 15, 11, 15,  6,  4, 11,  1, 11,  1, 14,  4,
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10,  0,  0, 13, 12,  0,  4,  0,  0,  0,  0,  0, 13,  0,  0, 10,  0,  0,  1,  2,  9,  0,  0, 13, 16,
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14,  0,  0,  1,  9,  0,  8,  0,  0,  0, 16, 10, 15,  1,  2,  5,  8,  0,  3,  3,  3,  7,  0,  7,  6,
16,  0,  0,  0,  0,  0,  0, 11,  0,  0,  0, 14,  0,  0,  0,  0,  0,  0,  0,  5,  0,  0,  0,  7,  0,
16,  0,  0,  0,  0,  0, 15, 12, 16, 10,  0,  6, 15, 11, 15,  0, 15, 10,  2, 10,  0, 11, 16, 14,  2,
};
INT BLT_17_stab_gens_fst[] = { 0, 9, 14, 19, 23, 26};
INT BLT_17_stab_gens_len[] = { 9, 5, 5, 4, 3, 5};
INT BLT_17_make_element_size = 0;
```