

Number of vertices $n = 14$.

Adjacencies of Graph

1. vertex 1 adjacent to 2 7 8
2. vertex 2 adjacent to 1 3 9
3. vertex 3 adjacent to 2 4 10
4. vertex 4 adjacent to 3 5 11
5. vertex 5 adjacent to 4 6 12
6. vertex 6 adjacent to 5 7 13
7. vertex 7 adjacent to 1 6 14
8. vertex 8 adjacent to 1 9 14
9. vertex 9 adjacent to 2 8 10
10. vertex 10 adjacent to 3 9 11
11. vertex 11 adjacent to 4 10 12
12. vertex 12 adjacent to 5 11 13
13. vertex 13 adjacent to 6 12 14
14. vertex 14 adjacent to 7 8 13

Size of automorphism group of the graph=28

Full group: $|Aut(polytope)| = 229376$

Restricted group: $|Aut(G) \times switch| = 229376$

Number of orbits for the full group : 6

List of orbits of facets for the full group: Total number of orbits = 6 Total number of facets = 7394

1. Inequality 1 with incidence 4096 and stabilizer of size 4096. Orbit size is 56

(1,2) : 0	(1,7) : 0	(1,8) : 0	(2,3) : 0	(2,9) : 0	(3,4) : 0
(3,10) : 0	(4,5) : 0	(4,11) : 0	(5,6) : -1	(5,12) : 1	(6,7) : 0
(6,13) : 1	(7,14) : 0	(8,9) : 0	(8,14) : 0	(9,10) : 0	(10,11) : 0
(11,12) : 0	(12,13) : 1	(13,14) : 0			

2. Inequality 2 with incidence 4096 and stabilizer of size 16384. Orbit size is 14

(1,2) : 0	(1,7) : 0	(1,8) : 1	(2,3) : 0	(2,9) : 0	(3,4) : 0
(3,10) : 0	(4,5) : 0	(4,11) : 0	(5,6) : 0	(5,12) : 0	(6,7) : 0
(6,13) : 0	(7,14) : 0	(8,9) : 0	(8,14) : 0	(9,10) : 0	(10,11) : 0
(11,12) : 0	(12,13) : 0	(13,14) : 0			

3. Inequality 3 with incidence 4096 and stabilizer of size 8192. Orbit size is 28

(1,2) : 0	(1,7) : 0	(1,8) : 0	(2,3) : 0	(2,9) : 0	(3,4) : 0
(3,10) : 0	(4,5) : 0	(4,11) : 0	(5,6) : 0	(5,12) : 0	(6,7) : 0
(6,13) : 0	(7,14) : 0	(8,9) : 0	(8,14) : 0	(9,10) : 0	(10,11) : 1
(11,12) : 0	(12,13) : 0	(13,14) : 0			

4. Inequality 4 with incidence 896 and stabilizer of size 1792. Orbit size is 128

(1,2) : 0	(1,7) : 0	(1,8) : 0	(2,3) : 0	(2,9) : 0	(3,4) : 0
(3,10) : 0	(4,5) : 0	(4,11) : 0	(5,6) : 0	(5,12) : 0	(6,7) : 0
(6,13) : 0	(7,14) : 0	(8,9) : 1	(8,14) : 1	(9,10) : 1	(10,11) : 1
(11,12) : -1	(12,13) : 1	(13,14) : 1			

5. Inequality 5 with incidence 288 and stabilizer of size 64. Orbit size is 3584

(1,2) : 0	(1,7) : 0	(1,8) : 0	(2,3) : 0	(2,9) : 0	(3,4) : 0
(3,10) : 0	(4,5) : 1	(4,11) : 1	(5,6) : -1	(5,12) : 0	(6,7) : 0
(6,13) : 1	(7,14) : 0	(8,9) : 1	(8,14) : 1	(9,10) : 1	(10,11) : 1
(11,12) : 0	(12,13) : 0	(13,14) : 1			

6. Inequality 6 with incidence 288 and stabilizer of size 64. Orbit size is 3584

(1,2) : 0	(1,7) : 0	(1,8) : 0	(2,3) : 0	(2,9) : 0	(3,4) : 1
(3,10) : 1	(4,5) : 1	(4,11) : 0	(5,6) : -1	(5,12) : 0	(6,7) : 0
(6,13) : 1	(7,14) : 0	(8,9) : 1	(8,14) : 1	(9,10) : 1	(10,11) : 0
(11,12) : 0	(12,13) : 0	(13,14) : 1			