

Number of vertices $n = 7$.

Adjacencies of Graph

1. vertex 1 adjacent to 2 3 4 5 6 7
2. vertex 2 adjacent to 1 3 4 5 6 7
3. vertex 3 adjacent to 1 2
4. vertex 4 adjacent to 1 2
5. vertex 5 adjacent to 1 2
6. vertex 6 adjacent to 1 2
7. vertex 7 adjacent to 1 2

Size of automorphism group of the graph=240

Full group: $|Aut(polytope)| = 29491200$

Restricted group: $|Aut(G) \times switch| = 15360$

Number of orbits for the full group : 1

List of orbits of facets for the full group: Total number of orbits = 1 Total number of facets = 20

1. Inequality 1 with incidence 48 and stabilizer of size 1474560. Orbit size is 20 nature: 3-cycle inequality, $C=[1, 2, 7]$ $F=[1, 2]$

$(1,2) : -1$	$(1,3) : 0$	$(1,4) : 0$	$(1,5) : 0$	$(1,6) : 0$	$(1,7) : 1$
$(2,3) : 0$	$(2,4) : 0$	$(2,5) : 0$	$(2,6) : 0$	$(2,7) : 1$	

Number of orbits for the restricted group : 1

List of orbits of facets for the restricted group: Total number of orbits = 1 Total number of facets = 20

1. Inequality 1 with incidence 48 and stabilizer of size 768. Orbit size is 20 nature: 3-cycle inequality, $C=[1, 2, 7]$ $F=[1, 2]$

$(1,2) : -1$	$(1,3) : 0$	$(1,4) : 0$	$(1,5) : 0$	$(1,6) : 0$	$(1,7) : 1$
$(2,3) : 0$	$(2,4) : 0$	$(2,5) : 0$	$(2,6) : 0$	$(2,7) : 1$	