

Number of vertices $n = 6$.

Adjacencies of Graph

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

Size of automorphism group of the graph=48

Full group: $|Aut(polytope)| = 294912$

Restricted group: $|Aut(G) \times switch| = 1536$

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 = 64

1. Inequality 1 with incidence 16 and stabilizer of size 4608. Orbit size is 64 nature: edge inequality $e=[1, 6]$

(1,3) : 0	(1,4) : 0	(1,5) : 0	(1,6) : 1	(2,3) : 0	(2,4) : 0
(2,5) : 0	(2,6) : 0				

Number of orbits for the restricted group : 2

List of orbits of facets for the restricted group: Total number of orbits = 2 Total number of facets = 64

1. Inequality 1 with incidence 16 and stabilizer of size 96. Orbit size is 16 nature: edge inequality $e=[1, 6]$

(1,3) : 0	(1,4) : 0	(1,5) : 0	(1,6) : 1	(2,3) : 0	(2,4) : 0
(2,5) : 0	(2,6) : 0				

2. Inequality 2 with incidence 16 and stabilizer of size 32. Orbit size is 48 nature: 4-cycle inequality, $C=[2, 6, 1, 5]$ $F=[2, 6]$

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