

Number of vertices $n = 6$.

Adjacencies of Graph

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

Size of automorphism group of the graph=72

Full group: $|Aut(polytope)| = 2304$

Restricted group: $|Aut(G) \times switch| = 2304$

Number of orbits for the full group : 2

List of orbits of facets for the full group: Total number of orbits = 2 Total number of facets = 90

1. Inequality 1 with incidence 16 and stabilizer of size 128. Orbit size is 18 nature: edge inequality $e=[1, 6]$

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

2. Inequality 2 with incidence 16 and stabilizer of size 32. Orbit size is 72 nature: 4-cycle inequality, $C=[1, 5, 2, 6]$ $F=[1, 5]$

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