

Number of vertices  $n = 4$ .

Adjacencies of Graph

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

Size of automorphism group of the graph=4

Full group:  $|Aut(polytope)| = 128$

Restricted group:  $|Aut(G) \times switch| = 32$

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 = 8

1. Inequality 1 with incidence 6 and stabilizer of size 16. Orbit size is 8

$(1,2) : -1$	$(1,3) : 1$	$(1,4) : 0$	$(2,3) : 1$	$(2,4) : 0$	
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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 = 8

1. Inequality 1 with incidence 6 and stabilizer of size 4. Orbit size is 8

$(1,2) : -1$	$(1,3) : 1$	$(1,4) : 0$	$(2,3) : 1$	$(2,4) : 0$	
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