

Exercise 1. What is the size of the Weyl group of type G_2 ? Write out its elements as reduced words in the two simple reflections s_1, s_2 corresponding to the two simple roots of G_2 .

Answer

This Weyl group can be presented as

$$\text{gen}(s_1, s_2) / \langle s_i^2, (s_1 s_2)^6 \rangle.$$