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Hurwitz numbers for reflection groups

In the symmetric group, the Hurwitz numbers count factorizations of a given permutation as a product of a fixed number of transpositions, subject to the requirement that the factors used act transitively on $\{1, \dots, n\}$. We study the analogous problem when the symmetric group is replaced by any Weyl group W , counting factorizations as a product of reflections subject to the requirement that the factors generate W . We find a beautiful uniform formula generalizing the result in the symmetric group, and describe some interesting features of the (case-by-case) proof.