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"Character theory for the Odd Order theorem"

Abstract:

The second — and final — half of the proof of the Odd Order theorem exploits character theory to derive global norm inequalities from the local combinatorial analysis of the first part of the proof. Because it combines a wide range of different theories, from solvable groups to Euclidean geometry and Galois theory, the formalization of this proof has turned out to be the perfect integration testbed for our Mathematical Components library.