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The planar cubic Cayley graphs. (English) Zbl 1435.05001


Publisher’s description: We obtain a complete description of the planar cubic Cayley graphs, providing an explicit presentation and embedding for each of them. This turns out to be a rich class, comprising several infinite families. We obtain counterexamples to conjectures of Mohar, Bonnington and Watkins. Our analysis makes the involved graphs accessible to computation, corroborating a conjecture of Droms.

MSC:
05-02 Research exposition (monographs, survey articles) pertaining to combinatorics
05C25 Graphs and abstract algebra (groups, rings, fields, etc.)
05C10 Planar graphs; geometric and topological aspects of graph theory
05C75 Structural characterization of families of graphs
20F05 Generators, relations, and presentations of groups

Cited in 2 Documents

Keywords:
Cayley graph; planar graph; planar presentation; amalgamation

Full Text: DOI arXiv Link

References:
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