

Title: Planar Cayley graph

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Abstract: In 1896, H. Maschke published an article on planar Cayley graphs, which connects group theory and graph theory. These graphs reveal the internal properties of groups. The aim of this bachelor's thesis is to expand Maschke's original article by providing a broader context and offering a more detailed perspective on the issue of planar Cayley graphs. This thesis provides proofs for theorems that were not proven in the original article but whose statements are used within it, as well as new theorems and their proofs that are necessary for the proper functioning of the original article. The thesis also includes specific examples of groups that generate planar Cayley graphs and the original illustrations of these drawings.

Keywords: planar graph, Cayley graph, group