

Cayley colour integral groups

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Abstract

A finite group G is said to be Cayley integral if every undirected Cayley graph $\text{Cay}(G, S)$ on G is integral. In this paper, we introduce three natural extensions of this concept; namely as: Cayley colour integral, \mathfrak{F} -Cayley colour integral and normal Cayley integral groups. We characterize the first two families in its entirety. The last family of groups is shown to be coinciding with inverse semi-rational groups introduced by Chillag and Dolfi, thereby providing an alternative characterization for the same. We also establish an inclusion hierarchy among these families.

References

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