

On normal edge-transitive Cayley graphs

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Xu was the first mathematician who proposed the concept of normal Cayley graph in [8] and then Wang et al. [7] obtained all disconnected normal Cayley graphs. Recently, the normality of edge-transitive Cayley graphs is considered by mathematicians and one of the standard problems in this area is to determine the normal edge-transitivity of Cayley graphs with specific orders, see [1, 3, 5, 7]. Baik et al. [1] studied normal edge-transitivity of Cayley graphs on abelian groups of valency at most five and Bosma et al. [2] also considered the edge-transitive Cayley graphs of valency four on non-abelian simple groups. In [4, 6] authors obtained all tetravalent normal edge-transitive Cayley graphs on either a group of odd order or a finite non-abelian simple group. Recently, Kovács [5] classified all connected tetravalent non-normal arc-transitive Cayley graphs on dihedral groups and Darafsheh et al. [3] studied the normal edge-transitive Cayley graphs on non-abelian groups of order $4p$, where p is a prime number. In this paper, we consider the hexavalent normal edge-transitive Cayley graphs on groups of order pqr , where $p > q > r > 2$ are prime numbers.

References

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