Decomposition of Groups and Cayley Maps

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A (topological) map is a cellular decomposition of a closed surface. A common way to describe maps is to view them as 2-cell embeddings of graphs. A Cayley map is an embeddings of a Cayley graph. The studies of regular (Cayley-) maps are related to decomposition of groups. In this paper, some recent results on decomposition of groups will be introduced.

References

[1] Shaofei Du, Wenjuan Luo and Hao Yu, The Product of a Generalized Quaternion Group And a Cyclic Group* *J. of the Austra. Math. Soc.*, 34 pages, online (2024),

https://doi.org/10.1017/S1446788724000181

[2] R. Jajcay and J. Širáň, Skew-morphisms of regular Cayley maps, *Disc. Math.* **224**(2002), 167–179.

[3] G.A. Jones, Maps on surfaces and Galois groups, *Math. Slovaca.* **47**(1997), 1–33.