BIJECTIONS OF A GROUP WHICH COMMUTE WITH ITS AUTOMORPHISMS

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We study bijections of a group onto itself that commute with distinguished subgroups of its automorphisms and establish the general structure of such groups of bijections. We obtain the structure of these groups of bijections as the structure of the centralizer of a subgroup of the permutation group of a set of arbitrary cardinality. In particular, we show that the centralizer of the regular representation of a group on itself is isomorphic to the group itself. Using the structure of such bijection groups for the free two-generated Burnside group of exponent 3, we compute the group of its bijections commuting with its inner automorphisms

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