

Year: 2015	Vol.: 87	Fasc.: 3-4
------------	----------	------------

Title: Groups with a few nonabelian centralizers

Author(s): Seyyed Majid Jafarian Amiri and Hojjat Rostami

For a group G , let $\text{cent}(G)$ denote the set of centralizers of single elements of G and $\text{nacent}(G)$ denote the set of all nonabelian centralizers belonging to $\text{cent}(G)$. We first characterize all finite groups G with $|\text{nacent}(G)| = 2$. We denote by $\omega(G)$, the maximum possible size of a subset of pairwise noncommuting elements of a finite group G . In this article we find a necessary and sufficient condition for some finite groups G satisfying $|\text{cent}(G)| = |\text{nacent}(G)| + \omega(G)$. In particular we show that this equality is valid for some simple groups.

Address:

Seyyed Majid Jafarian Amiri
Department of Mathematics
Faculty of Sciences
University of Zanjan
P.O. Box 45371-38791, Zanjan
Iran

Address:

Hojjat Rostami
Department of Mathematics
Faculty of Sciences
University of Zanjan
P.O. Box 45371-38791, Zanjan
Iran