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Title: On a graph of a p -solvable normal subgroup

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Let N be a p -solvable normal subgroup of a group G . In this paper, we prove that N is solvable if $\alpha > \beta > 1$ are the two maximal sizes in $cs_G(N_{p'})$ such that $(\alpha, \beta) = 1$ and β is a p' -number dividing $|N/(N \cap Z(G))|$. Moreover, the structure of N is given.

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