

" ABOUT THE FINITE GROUPS WHOSE MINIMAL NORMAL SUBGROUPS
ARE UNION OF TWO CONJUGACY CLASSES EXACTLY"

by

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Every considered group is finite. Given a group G , $S(G)$ will denote the product of all the minimal normal subgroups of G , $\alpha(G)$ the number of conjugacy classes of elements of G which compose the normal set $G-S(G)$, $\beta(G)$ the number of minimal normal subgroups of G and $r(G)$ the number of conjugacy classes of elements of G . Obviously, for each group G , it is $\beta(G) \leq r(G) - \alpha(G) - 1$. In this work, we classify all the finite groups G satisfying the conditions $\beta(G) = r(G) - \alpha(G) - 1$ and such that the cardinal of $G/S(G)$ is divisible by, at the most three prime numbers not necessarily distinct.

References

- [1] Vera-López "Clasificación de grupos finitos con muchos normales minimales y con número de clases de conjugación de $G/S(G)$ menor que 7"
Rev. Acad. Ciencias de Zaragoza 38, pp.21-30, 1983.

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