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ON INTERSECTIONS OF PRIMARY SUBGROUPS IN THE GROUP $\mathrm{Aut}(L_n(2))$

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It is proved that, in a finite group G whose socle is isomorphic $L_n(2)$, there exist primary subgroups A and B such that the intersection of A and any subgroup conjugate to B under the action of G is nontrivial only if G is isomorphic to the group $\mathrm{Aut}(L_n(2))$; in this case, A and B are 2-subgroups. All ordered pairs (A, B) of such subgroups are described.

Keywords: almost simple group, nilpotent subgroup.

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