1024-20-159        **Adriana Nenciu\*** (`nenciu@math.wisc.edu`), Department of Mathematics, University of
Wisconsin, 480 Lincoln Drive, Madison, WI 53706. *Character tables of p-groups.*

Precise formulas and estimates for the number of finite $p$-groups up to isomorphism are known. However, much less is known about the number of non-isomorphic character tables of such groups. Two character tables of finite groups are *isomorphic* if there exists a bijection for the irreducible characters and a bijection for the conjugacy classes that preserve all the character values. In the case of finite $p$-groups with derived subgroup of order $p$, we classify up to isomorphism their irreducible character tables. Using a computer program we can compute the exact number of non-isomorphic $p$-groups with derived subgroup of order $p$ and the number of non-isomorphic character tables of these groups. The number of character tables turns out to be considerably less than the number of groups. (Received January 07, 2007)

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