

1014-20-159

Adriana Nenciu* (nenciu@math.ufl.edu), University of Florida, Department of Mathematics,
358 Little Hall, Gainesville, FL 32611. *Number of Character Tables of Finite Groups.*

Precise formulas and estimates for the number of finite p -groups up to isomorphism are known, but 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 exist a bijection for the irreducible characters, and a bijection for the conjugacy classes that preserve all the character values. We give necessary and sufficient conditions for two finite groups to have isomorphic character tables. In the case of finite p -groups with derived subgroup of order p , we classify up to isomorphism their irreducible character tables, and estimate their number. The number of such character tables turns out to be considerably less than the corresponding number of groups. (Received August 03, 2005)