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Hung Ngoc Nguyen* (hungnguyen@uakron.edu), Department of Mathematics, The University of Akron, Akron, OH 44325. *Class sizes and their multiplicities in finite simple groups.*

We prove that if S is a finite simple group then the order of S is bounded in terms of the largest multiplicity of its conjugacy class sizes. We then apply this result to prove that if the largest multiplicity of conjugacy class sizes of every quotient of a finite group G is m , then the order of G is bounded in terms of m . We also discuss some related open questions. (Received September 01, 2012)