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Kamal Aziziheris* (kazizihe@math.kent.edu), Summit Street, Kent, OHIO 44242, Kent, OH 44242. *Determining Group Structure from the Sets of Character Degrees*. Preliminary report.

Let $\text{cd}(G)$ be the set of degrees of the irreducible complex characters of a finite group G . In 1998, Lewis proved that if p, q, r , and s are distinct primes and $\text{cd}(G) = 1, p, q, r, pq, pr$ or $\text{cd}(G) = 1, p, q, r, s, pr, ps, qr, qs$, then G is the direct product of two normal non-abelian subgroups of G . We generalize Lewis' results by loosening the primeness hypothesis of $\text{cd}(G)$. In particular, we work on the structure of finite solvable groups whose character degree sets are in the form $1, a, b, c, ab, ac$, where a, b , and c are pairwise coprime integers. (Received June 11, 2010)