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On the number of maximal subgroups of a finite solvable group. Preliminary report.

For a finite group G , let $\mathbf{m}(G)$ be the number of maximal subgroups of G , and let $h(n) = \max\{\mathbf{m}(G) \mid G \text{ is solvable and } |G| = n\}$. We present an upper bound $f(n)$ for $h(n)$ which improves existing upper bounds. We also identify values of n for which $f(n) = h(n)$. (Received September 18, 2010)