1084-20-109   **YONG YANG*** (`yangy@uwp.edu`), 900 Wood Road, Kenosha, WI 53144. *Solvable Permutation Groups and Orbits on Power Set.*

A permutation group G acting on a set Ω induces a permutation group on the power set $P(\Omega)$. Let G be a finite permutation group of degree n and let $s(G)$ denote the number of set-orbits of G. We determine $\inf(\frac{\log_2 s(G)}{n})$ over all solvable groups G. This answers a question of Babai and Pyber 'Permutation groups without exponentially many orbits on the power set', J. of Comb. Theory, Series A, 66 (1994), 160-168. (Received August 27, 2012)