1067-11-362   **Omer Yayenie*** (`omer.yayenie@murraystate.edu`), 6C-1 Faculty Hall, Murray, KY 42071. *A Note on the Power Subgroups of the Modular Group.*

Let $\Gamma(1)$ be the inhomogeneous modular group and let $\Gamma(1)^n$ be a power subgroup of the modular group generated by the nth power of elements of $\Gamma(1)$. These subgroups are known when $gcd(n,6) < 6$ or $n = 6k$ for $k = 1$ or $k \geq 72$. There are 70 cases where these subgroups are unknown, namely $\Gamma(1)^{6m}$ for $2 \leq m \leq 71$. In this article we give a brief summary of these subgroups and provide some new results that might lead to the classification of these unknown power subgroups. (Received August 27, 2010)