

1046-46-1570

Aderaw Workneh Fenta* (aderaw.fenta@csm.astate.edu), Department of Mathematics & Statistics, Arkansas State University, P.O. Box 70, State University, AR 72467. *Lacunary Orbits for Multiplication operators in $C[0, 1]$ and $L_p[0, 1]$, $1 \leq p < \infty$.*

We show that if $\{\lambda_k\}_{k=1}^{\infty}$ is a lacunary sequence and h is a function in $C[0, 1]$ or $L_p[0, 1]$, $1 \leq p < \infty$ such that for some $\delta > 0$, $h \neq 0$ almost everywhere in the interior of the interval $(1 - \delta, 1)$, then the lacunary orbit of h under the multiplication operator, namely the sequence $\{t^{\lambda_k} h(t)\}_{k=1}^{\infty}$ is a basic sequence.

(Received September 16, 2008)