

ABSTRACT

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In “On Universal functions” by Aron and Markose, proofs of the following theorems are given: If $H(\mathbb{C})$ is the set of entire functions, there exist $f, g \in H(\mathbb{C})$ such that $\{f(z + n) : n \in \mathbb{N}\}$ and $\{g^{(n)}(z) : n \in \mathbb{N}\}$ are dense in $H(\mathbb{C})$. These results, originally due to Birkhoff and Maclane, are presented here in detail. These theorems are completely subsumed by the later work of Godfrey and Shapiro in which numerous such functions can be found by using convolution operators and the notion of hypercyclicity. This will be discussed briefly.