

EXERCISES

1. Let $f: \mathbb{R} \rightarrow \mathbb{R}$ be a function. Define $f^{\circ 0}(x) = x$ and $f^{\circ n}(x) = f(f^{\circ(n-1)}(x))$ for $n \geq 1$. Suppose f is a linear function. Prove that $f^{\circ n}(x) = f^n(x)$ for all $x \in \mathbb{R}$ and $n \in \mathbb{N}$.

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