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**Zbl 364.08006**

**Erdős, Paul; Fajtlowicz, Siemion**

*On composition of polynomials.* (In English)

**Algebra Univers. 7, 357-360 (1977). [0002-5240]**

In this paper the order of enlargeability $\varepsilon(A)$ of an algebra $A$ over a field $F$ is investigated. Let $A^{(n)}$ denote the set of all $n$-ary polynomial operations of $A$ and $A^{(\omega)}$ the set of all polynomial operations of $A$, then

$$\varepsilon(a) := \min\{n : \forall_B([A^{(n)} = B^{(n)}] \Rightarrow [A^{(\omega)} \supseteq B^{(\omega)}])\},$$

where $\min\{\emptyset\} := \infty$. $\varepsilon(A)$ is determined for algebras $A$ over countable and uncountable fields $F$. Special results are obtained for $A = F$.

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Classification:
08A99 Universal algebra
12E99 General field theory