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universal relation

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If Φ is a class of n-ary relations with $\vec{x}$ as the only free variables, an $n+1$-ary formula ψ is *universal* for Φ if for any $\phi \in \Phi$ there is some e such that $\psi(e, \vec{x}) \leftrightarrow \phi(\vec{x})$. In other words, ψ can simulate any element of Φ.

Similarly, if Φ is a class of function of $\vec{x}$, a formula ψ is universal for Φ if for any $\phi \in \Phi$ there is some e such that $\psi(e, \vec{x}) = \phi(\vec{x})$.