elementarily equivalent

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Defines	theory

Conventions   *All structures share a common signature; the first-order language $\mathcal{L}$ is the language determined by that signature.*

Definition   *The* theory *of a structure $\mathcal{M}$, $\mathrm{Th}(\mathcal{M})$, is the set of all sentences of $\mathcal{L}$ that are true in $\mathcal{M}$.*

Definition   *Structures $\mathcal{M}$ and $\mathcal{N}$ are* elementarily equivalent, *(in symbols: $\mathcal{M} \equiv \mathcal{N}$) if and only if $\mathrm{Th}(\mathcal{M}) = \mathrm{Th}(\mathcal{N})$.*